INLAND COUNTIES EMERGENCY MEDICAL AGENCY
Serving
San Bernardino, Inyo & Mono Counties

Inland Counties Emergency Medical Agency

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Serving San Bernardino, Inyo, and Mono Counties
Daniel Muñoz, Interim EMS Administrator
Reza Vaezazizi, MD, Medical Director

DATE: September 24, 2024

FROM: Daniel Munoz, Interim EMS Administrator
Reza Vaezazizi, MD, Medical Director

TO: EMS Providers - ALS, LALS, BLS, EMS Aircraft
Hospital CEOs, ED Directors, Nurse Managers and PLNs
EMS Training Institutions and Continuing Education Providers
Inyo, Mono and San Bernardino County EMCC Members
Medical Advisory Committee (MAC) Members

SUBJECT: 30-DAY NOTIFICATION FOR PUBLIC COMMENT

Public comment for the policies and protocols listed below will occur at the next Medical Advisory Committee meeting on October 24, 2024, 1:00 pm, at the ICEMA office. Please review and bring suggestions for modification to the meeting.

ICEMA Reference Number and Name

5030	Requirements for Patient Care Reports
5040	Requirements for Collection and Submission of EMS Data
6020	Responsibility for Patient Management
7010	Standard Drug and Equipment List-BLS,LALS,ALS
9030	Destination
11010	Medication-Standard Orders
14090	Traumatic Injury-Adult (15 years of years and older)
14250	Determination of Death on Scene

Enclosure
c: File Copy

POLICIES/PROTOCOLS CHANGES EFFECTIVE November 1, 2024

Reference #	Name	Changes
DELETIONS		
NEW		
		.
CHANGES		
5030	Requirements for Patient Care Reports	Edited for brevity and clarity
5040	Requirements for collection and submission of EMS Data	Edited for brevity and clarity
6020	Responsibility for Patient Management	Rewritten to include BLS downgrade
7010	Standard Drug and Equipment List- BLS/LALS/ALS	Infant simple mask changed to Infant Oxygen Mask (admin change)
9030	Destination	Traumatic arrest transport destination updated to include considerations for time in transport to a trauma center
11010	Medication- Standard Orders	Crush injury as an indication for albuterol, calcium chloride and sodium bicarbonate Indication for midazolam- Post ROSC agitation was changed to Post Intubation agitation (admin change)
14090	Trauma-Adult (15 years of age and older)	Treatment for Crush injury added Clarification added for managing traumatic full arrest
14250	Determination of Death On scene	Wording added for clarification

REQUIREMENTS FOR PATIENT CARE REPORTS

I. PURPOSE

To establish requirements for the initiation, transfer, completion, review and retention of patient care reports by BLS and ALS EMS providers that is necessary to maintain medical control and continuity of patient care.

II. RESPONSIBILITIES FOR INITIATION, TRANSFER, COMPLETION AND REVIEW OF PATIENT CARE REPORTS

Initiation of Patient Care Report

- An electronic patient care report (ePCR) must be created for each patient response.
  - EMS providers using their own electronic health record (EHR) system must comply with ICEMA Reference #5040 - Requirements for Collection and Submission of EMS Data.
  - The initiation and completion of the ePCR is the responsibility of the EMS field personnel who participate in the EMS response and/or patient care.
  - If two (2) or more units from the same EMS provider are dispatched, at least one (1) EMS field personnel is required to initiate and complete an ePCR.
  - When two (2) or more units from different EMS providers are dispatched, at least one (1) EMS field personnel from each EMS provider is required to initiate and complete an ePCR.
- EMS field personnel shall obtain, and document all required ICEMA data elements, including all assessments, procedures and medications administered and provided by the EMS field personnel and members of their crews participating in the patient care.
- EMS field personnel shall only document assessment, procedures and medications administered and provided by EMS field personnel within their own organization.
  - If procedures or medications are administered by laypersons or public safety, providers will document those procedures and/ or medications in the applicable ePCR fields.
  - EMS providers must add student and/or intern names and certifications to their user lists so all EMS field personnel rendering care are appropriately identified on the ePCR.
  - Students must not participate in completing the ePCR.

Completion of Patient Care Reports

- The EMS field personnel responsible for patient care shall accurately complete the patient care report and ensure that the ePCR:

- Contains all data elements required by ICEMA including all assessments, procedures and medications administered and provided by the EMS field personnel and members of their crews participating in patient care.
- Includes any additional information required by NEMSIS/CEMSIS.
- Is signed by the EMS field personnel (EMS primary care provider/EMS crew member) who is responsible for patient care (EMS provider may require more than one signature).
- Is completed, locked and posted according to this policy.

Transfer of Patient Care Information and Distribution of Patient Care Reports

- The ICEMA Data System is the preferred method of transfer of all patient care information between EMS field personnel, EMS providers, hospitals and ICEMA.
- EMS field personnel transferring patient care must initiate an electronic transfer of all required information to the accepting EMS field personnel concurrently with the verbal transfer of care.
- ePCRs from both the transport agency and the first response agency (if applicable) must be completed and posted to the server within four (4) hours of completion of the response.
  - ePCR upload requirements may be delayed due to an emergency response; however, submission must be completed as soon as possible but no later than the end of shift when the patient response occurred.
  - In situations where the transfer of information is not possible due to connectivity issues, the transfer must be made at the earliest opportunity when connectivity is restored.

Review and Evaluation of Patient Care Reports

- ICEMA may view or request a copy of any completed ePCR for quality assurance and/or quality improvement.
- The EMS provider is responsible for the monitoring, review, evaluation and improvement of patient care data per the EMS provider's Quality Improvement Plan.
- The EMS provider is responsible to include all ICEMA and State required EMS system quality indicators in its quality improvement program.
- ICEMA may produce system-wide statistical and quality improvement summary reports based on individual or aggregate data.
- The EMS provider is responsible for the evaluation of individual statistical or quality assurance summary reports.

III. RESPONSIBILITIES FOR RECORD/REPORT RETENTION

- All records pertaining to patient care shall be maintained by the EMS provider, hospital, and/or ICEMA as required by State and/or federal regulation. Types of records to be retained, include:
  - Records related to either suspected or pending litigation.
  - Electronic Patient Care Reports (ePCR).
  - Electrocardiograms (EKG/ECG).
  - Capnography waveforms.
  - EMS provider refusal of care documentation.

IV. PRIVACY

All EMS providers are responsible to enact policies which ensure patient privacy by restricting access and implementing electronic protections in compliance with State and federal statues, policies, rules and regulations, including the Health Insurance Portability and Accountability Act of 1996 (HIPAA).

V. REFERENCES

Number	Name
5020	Minimum Documentation Requirements for Transfer of Patient Care
5040	Requirements for Collection and Submission of EMS Data

REQUIREMENTS FOR COLLECTION AND SUBMISSION OF EMS DATA

I. PURPOSE

To establish requirements for the collection and submission of data to the ICEMA Data System by EMS providers using their own electronic health record (EHR) system as required by State regulations and ICEMA policy.

II. POLICY

All EMS providers shall utilize an EHR system that is compliant with CEMSIS and NEMSIS and contain any additional data elements required by ICEMA. EMS providers must submit data to the ICEMA Data System to maintain compliance with medical control to ensure the continuity of patient care within the ICEMA region.

III. RESPONSIBILITIES OF EMS PROVIDERS

- EMS providers using their own EHR system, and their vendor(s) must maintain a system that:
  - Contain provisions for the electronic transfer of the patient care between EMS providers and hospitals at the time of transfer of care that:
  - Ensures all required data is submitted to the ICEMA Data System with transfer of patient care to a subsequent EMS provider or hospital.
  - Ensures all required data is submitted to the ICEMA Data System when the record is completed and/or locked.
  - Resubmits all records, if opened and changed for any reason, at the time of the next scheduled submission of data.
- EMS providers using their own EHR system must:
  - Initiate and complete an ePCR as outlined in ICEMA Reference # 5030-Requirements for Patient Care Reports.
  - Notify ICEMA of any system outages more than 60 minutes by e-mailing the ICEMA Duty Officer.
  - Use the same version of CEMSIS and NEMSIS used by ICEMA.
    - Ensure that data element numbers match those in the ICEMA Data System.
  - Coordinate any updates to the current versions of CEMSIS and NEMSIS when implemented by ICEMA to coincide with the upgrade implementation date.
  - Include validation rules that ensure that all required data elements are captured in the ePCR.
  - Allow the California Hospital Hub to access their EHR system.

- EMS providers using their own EHR system must provide ICEMA with a detailed list of all:
  - Data elements and field values currently active in the EMS provider's EHR system.
    - Documentation must show relationship between data elements and field values in the EMS provider's EHR system with those on the ICEMA Data System.
  - Validation rules implemented on the EMS provider's EHR system.
- EMS providers using their own EHR system must submit and demonstrate a process for the electronic transfer of patient care between sending and receiving EMS field personnel at the time of transfer of patient care to ICEMA for approval 90 days prior to implementation that includes:
  - A process that creates a unified record between the sending and receiving EMS providers.
  - The ability to upload an ePCR for transfer to the other responding EMS providers that:
    - Is available for use by EMS Providers using the ICEMA Data System at the time of transfer of patient care, and
    - Allows EMS field personnel utilizing the ICEMA Data System to use the standard user interface (Transfer-Upload/Download functions).
  - Demonstrates the accuracy and validity of all submitted data.
  - Ensures that all ICEMA required data elements and field values are included in the EMS provider's input/output form.
- EMS providers using their own EHR system must make any ICEMA requested changes or additions to their data sets and input forms and maintain the ability to integrate data with the ICEMA Data System within the time periods specified below:
  - Make any changes or additions in priority data elements and/or values within 24 hours of notification (weekdays only). Priority items are defined as those that are necessary to comply with State regulations or medical control.
  - Make any changes or additions of non-priority data elements and/or values within five (5) days of notification.
  - Ensure that all changes in either priority and non-priority data sets are implemented in the EMS provider's input/output forms at the time of the change and provide a copy of the EMS provider's revised input/output forms to ICEMA.
  - EMS providers whose data is not accepted by the State or national data repositories will be excluded from further data submissions until the EMS provider can demonstrate that it is compliant with CEMSIS and/or NEMSIS standards or as required by State and/or federal regulations.

IV. RESPONSIBILITIES OF DISPATCH CENTERS USING COMPUTER AIDED DISPATCH (CAD)

- When CAD data is used to populate the ePCR, all dispatch centers that dispatch EMS providers using their own EHR system must submit CAD data to ICEMA in an electronic format that will:

  - Include all data elements as described in the current *NEMSIS CAD Data Standard* and submitted in a format that is compatible with the ICEMA Data System.

  - Be submitted concurrently with the medical aid request or the initiation of the response.

  - Include required data for all emergency and non-emergency medical aid requests.

V. REFERENCES

NUMBER	NAME
5030	Requirements for Patient Care Reports

RESPONSIBILITY FOR PATIENT MANAGEMENT-ALS Downgrade

I. PURPOSE

To define the responsibility for patient care management in the prehospital setting. Within the ICEMA region, in the event both public and private emergency medical services (EMS) field personnel arrive on the scene with the same qualifications, patient care management responsibility will rest with the first to arrive.

II. PROCEDURE

An advanced emergency medical technician (AEMT) or paramedic (EMT-P) may transfer patient management responsibility to an emergency medical technician (EMT) for transportation, only under the following conditions:

- When the ALS transport paramedic determines that additional ALS assistance is NOT required AND the patient's condition meets the criteria below, the patient may be downgraded to BLS level of care.

  - No acute cardiac dysrhythmias
  - The patient does not require specialty care services
  - Airway is open and intact, Sp02 saturations are above 93% and not requiring supplemental O2
  - Blood glucose is not less then 60mmg/dl or glucometer does not read LO
  - Patient is not altered or is at their baseline
  - Vital signs are within normal range
  - There is no known or suspected overdose, poisoning or ingestion
  - The patient does not have chest pain
  - There are no OB or pregnancy related complications
  - The patient is not postictal or presenting with seizure activity

GENERAL CONSIDERATIONS PRIOR TO DOWNGRADE

- Patients who require immediate medical attention will be transported to the closest most appropriate hospital.
- Patients who have received ALS interventions, or those who would likely benefit from ALS interventions cannot be downgraded to a BLS level of care.
- Patients, parents, or guardians must be alert, oriented, and acting appropriately for their age and do not present with any significant impairment due to drugs, alcohol, organic causes, or mental illness.

DOCUMENTATION REQUIREMENTS WHEN DOWNGRADING FROM ALS TO BLS

- The following must be documented in thePCR:

  - Select; Patient treated and care transferred to another EMS unit as the disposition, "BLS" must be selected as the transporting ambulance level of care in the ground transport panel.
  - Physical exam findings must include a full head-to-toe exam within the assessment panel.
  - Document all treatments provided.

  - ~~The patient is stable for transport and no ALS measures have been initiated.~~

- When operating under ICEMA Reference #8030 - Transport of Patients (BLS).
- When operating under ICEMA Reference #8080 - Medical Response to a Multiple Casualty Incident.
- When operating under ICEMA Reference #6050 - Local Medical Emergency.

- The base hospital should be contacted if at any time transfer of patient management responsibility is in question or for any patient not meeting the above criteria.

III. REFERENCES

Number	Name
6050	Local Medical Emergency
8030	Transport of Patients (BLS)
8080	Medical Response to a Multiple Casualty Incident

STANDARD DRUG AND EQUIPMENT LIST - BLS/LALS/ALS

Each ambulance and first responder unit shall be equipped with the following functional equipment and supplies. **This list represents mandatory items with minimum quantities** excluding narcotics, which must be kept within the range indicated. All expiration dates must be current. All packaging of drugs or equipment must be intact. No open products or torn packaging may be used.

All ALS (transport and non-transport) and BLS transport vehicles shall be inspected annually.

MEDICATIONS/SOLUTIONS

Exchanged Medications/Solutions	BLS	LALS	ALS Non-Transport	ALS Transport
Acetaminophen (Tylenol) 1 gm IV			1	1
Adenosine (Adenocard) 6 mg			1	1
Adenosine (Adenocard) 12 mg			2	2
Albuterol Aerosolized Solution (Proventil) - unit dose 2.5 mg		4 doses	4 doses	4 doses
Aspirin, chewable - 81 mg tablet		2	1 bottle	1 bottle
Atropine 1 mg preload			2	2
Calcium Chloride 1 gm preload			1	1
Dextrose 10% in 250 ml Water (D10W)		2	2	2
Diphenhydramine (Benadryl) 50 mg		2	1	1
Epinephrine 1 mg/ml 1 mg		2	2	2
Epinephrine 0.1 mg/ml 1 mg preload			4	4
Glucagon 1 mg		1	1	1
Glucose paste	1 tube	1 tube	1 tube	1 tube
Ipratropium Bromide Inhalation Solution (Atrovent) unit dose 0.5 mg			4	4
Irrigating Saline and/or Sterile Water (1000 cc)	2	1	1	2
Lidocaine 2% 100 mg			3	3
Magnesium Sulfate 10 gm			1	1
Naloxone (Narcan) 2 mg preload	2	2	2	2
Nitroglycerine (NTG) - Spray 0.4 mg metered dose and/or tablets (tablets to be discarded 90 days after opening)		2	1	2
Nitroglycerine Paste 2% - 1 gm packets, **or** Nitroglycerine Paste 2% - 30 gm tube, **or** Nitroglycerine Paste 2% - 60 gm tube				2 1 1
Normal Saline for Injection (10 cc)		2	2	2
Normal Saline 100 cc			1	2
Normal Saline 250 cc			1	1
Normal Saline 500 ml and/or 1000 ml		2000 ml	3000 ml	6000 ml
Ondansetron (Zofran) 4 mg Oral Disintegrating Tablets (ODT)			4	4
Ondansetron (Zofran) 4 mg IM/IV			4	4
Sodium Bicarbonate 50 mEq preload			2	2
Tranexamic Acid (TXA) 1 gm			2	2

Non-Exchange Controlled Substance Medications MUST BE DOUBLE LOCKED	**BLS**	**LALS**	**ALS Non-Transport**	**ALS Transport**
Buprenorphine-Naloxone (Suboxone) SL			48 mg *optional*	48 mg optional
Diazepam *(optional alternative when midazolam is commercially unavailable)*			40-80 mg	40-80 mg
Fentanyl			200-400 mcg	200-400 mcg
Midazolam			20-40 mg	20-40 mg
Ketamine			120-1000 mg	120-1000 mg

AIRWAY/SUCTION EQUIPMENT

Exchanged Airway/Suction Equipment	**BLS**	**LALS**	**ALS Non-Transport**	**ALS Transport**
CPAP circuits - all manufacture's available sizes			1 each	2 each
End-tidal CO2 device - Pediatric and Adult (may be integrated into bag)			1 each	1 each
Endotracheal Tubes cuffed - 6.0 and/or 6.5, 7.0 and/or 7.5 and 8.0 and/or 8.5 with stylet			2 each	2 each
ET Tube holders - adult		1 each	1 each	2 each
i-gel - Size 1,1.5,2,2.5, 3, 4, and 5			1 each	2 each
Mask - Adult & Pediatric non-rebreather oxygen mask	2 each	2 each	2 each	2 each
Mask - Infant oxygen~~Simple~~ Mask	1	1	1	1
Nasal cannulas - pediatric and adult	2 each	2 each	2 each	2 each
Naso/Orogastric feeding tubes - 5fr or 6fr, and 8fr			1 each	1 each
Naso/Orogastric tubes - 10fr or 12fr, 14fr, 16fr or 18fr			1 each	1 each
Nasopharyngeal Airways - (infant, child, and adult)	1 each	1 each	1 each	1 each
Needle Cricothyrotomy Device - Pediatric and adult or Needles for procedure 10, 12, 14 and/or 16 gauge			1 each 2 each	1 each 2 each
14 gauge 3.25 inch and 18 gauge 1.75-2 inch needles for Needle Thoracostomy			2 each	1
Oropharyngeal Airways - (infant, child, and adult)	1 each	1 each	1 each	1 each
Rigid tonsil tip suction	1		1	1
Small volume nebulizer with universal cuff adaptor		2	2	2
Suction Canister	1		1	1
Suction catheters - 6fr, 8fr or 10fr, 12fr or 14fr	1 each		1 each	1 each
Ventilation Bags - Infant 250 ml Pediatric 500 ml (or equivalent) Adult	 1 1 1	 1 1 1	 1 1 1	 1 1 1
Water soluble lubricating jelly		1	1	1

Non-Exchange Airway/Suction Equipment	BLS	LALS	ALS Non-Transport	ALS Transport
Ambulance oxygen source -10 L / min for 20 minutes	1			1
CPAP - (must be capable of titrating pressure between 2 and 15 cm H_2O)			1	1
Flashlight/penlight	1	1	1	1
Laryngoscope blades - #0, #1, #2, #3, #4 curved and/or straight			1 each	1 each
Laryngoscope handle with batteries - or 2 disposable handles			1	1
Magill Forceps - Pediatric and Adult			1 each	1 each
Manual powered suction device		1		
Portable oxygen with regulator - 10 L /min for 20 minutes	1	1	1	1
Portable suction device (battery operated)	1		1	1
Pulse Oximetry device	(SEE OPTIONAL EQUIPMENT SECTION, PG. 5)	1	1	1
Stethoscope	1	1	1	1
Wall mount suction device	1 (BLS TRANSPORT ONLY)			1

IV/NEEDLES/SYRINGES/MONITORING EQUIPMENT

Exchanged IV/Needles/Syringes/Monitor Equipment	BLS	LALS	ALS Non-Transport	ALS Transport
Conductive medium or Pacer/Defibrillation pads			2 each	2 each
Disposable Tourniquets		2	2	2
ECG electrodes			20	20
Mechanical (i.e. SAM) or Powered (i.e.EZ) IO Driver. **manual insertion of IO needle is not permitted.*			1 each	1 each
Mechanical/Powered IO Needles: 25 mm 45 mm			 2 each 1 each	 2 each 1 each
Glucose monitoring device with compatible strips and OSHA approved single use lancets	1	1	1	1
3-way stopcock with extension tubing			2	2
IV Catheters - sizes 14, 16, 18, 20, 22, 24		2 each	2 each	2 each
Macrodrip Administration Set Microdrip Administration Set (60 drops / cc)		3 1	3 1	3 2
Mucosal Atomizer Device (MAD) for nasal administration of medication	2	2	2	4
Pressure Infusion Bag (disposable)		1	1	1
Razors		1	2	2
Safety Needles - 20 or 21gauge and 23 or 25 gauge		2 each	2 each	2 each

Exchanged IV/Needles/Syringes/Monitor Equipment	BLS	LALS	ALS Non-Transport	ALS Transport
Saline Lock Large Bore Tubing Needleless		2	2	2
Sterile IV dressing		2	2	2
Syringes w/wo safety needles - 1 cc, 3 cc, 10 cc catheter tip		2 each		
Syringes w/wo safety needles - 1 cc, 3 cc, 10 cc, 20 cc, 60 cc catheter tip			2 each	2 each

Non-Exchange IV/Needles/Syringes/ Monitor Equipment	BLS	LALS	ALS Non-Transport	ALS Transport
12-lead ECG Monitor and Defibrillator with TCP and printout			1	1
Blood pressure cuff - large adult or thigh cuff, adult, child and infant (one of each size)	1	1	1	1
Capnography monitor and supplies, may be integrated in the cardiac monitor			1	1
Needle disposal system (OSHA approved)	1	1	1	1
Thermometer - Mercury Free with covers	1	1	1	1

OPTIONAL EQUIPMENT/MEDICATIONS

Non-Exchange Optional Equipment/ Medications	BLS	LALS	ALS Non-Transport	ALS Transport
AED/defib pads - Adult (1), Pediatric (1)	1 each	1 each		
Albuterol MDI with spacer		4 doses	4 doses	4 doses
Automatic CPR device (FDA approved)	1	1	1	1
Automatic transport ventilator (Specialty Program Only - ICEMA approved device)			1	1
Backboard padding	1	1	1	1
Buretrol			1	1
Chemistry profile tubes			3	3
Epinephrine 0.15 mg Auto-Injector Jr.	2	2		
Epinephrine 0.3 mg Auto-Injector	2	2		
Nerve Agent Antidote Kit (NAAK) - DuoDote or Mark I	3	3	3	3
EMS Tourniquet	1		1	1
Gum Elastic intubation stylet			2	2
Hemostatic Dressings *	1	1	1	1
IO Needles - Manual, Adult and Pediatric, Optional		Pediatric sizes only IO needles and drivers	1 each	1 each
IV infusion pump			1	1
IV warming device		1	1	1
Manual IV Flow Rate Control Device			1	1
Manual powered suction device	1	1	1	1
Multi-lumen peripheral catheter			2	2
Needle Thoracostomy Kit (prepackaged)			2	2
Naloxone (Narcan) Nasal Spray 4 mg	2	2	2	2
Pulse Oximetry device	1			
Sodium Bicarbonate 50 mEq / 50cc Vial			2	2
Translaryngeal Jet Ventilation Device			1	1
Vacutainer			1	1

* Hemostatic Dressings

- Quick Clot, Z-Medica
  Quick Clot, Combat Gauze LE
  Quick Clot, EMS Rolled Gauze, 4x4 Dressing, TraumaPad
- Celox
  Celox Gauze, Z-Fold Hemostatic Gauze
  Celox Rapid, Hemostatic Z-Fold Gauze
- HemCon ChitoFlex Pro Dressing

NOTE:

- The above products are "packaged" in various forms (i.e., Z-fold, rolled gauze, trauma pads, 4"x4"pads) and are authorized provided they are comprised of the approved product.
- Hemostatic Celox Granules, or granules delivered in an applicator, are not authorized.

DRESSING MATERIALS/OTHER EQUIPMENT/SUPPLIES

Exchanged Dressing Materials/Other Equipment/ Supplies	**BLS**	**LALS**	**ALS Non-Transport**	**ALS Transport**
Adhesive tape - 1 inch	2	2	2	2
Air occlusive dressing	1	1	1	1
Ankle and wrist restraints, soft ties acceptable	1		1	1
Antiseptic swabs/wipes	10	10	10	10
Bedpan or fracture pan Urinal	1 (BLS TRANSPORT UNITS ONLY) 1 (BLS TRANSPORT UNITS ONLY)			1 1
Cervical Collars - Rigid Pediatric and Adult all sizes or Cervical Collars - Adjustable Adult and Pediatric	2 each 2 each	2 each 2 each	2 each 2 each	2 each 2 each
Cold Packs	2	2	2	2
Emesis basin or disposable bags and covered waste container	1	1	1	1
Head immobilization device	2	2	2	2
OB Kit	1	1	1	1
Pneumatic or rigid splints capable of splinting all extremities	4	2	2	4
Provodine/Iodine swabs/wipes or antiseptic equivalent		4	10	10
Roller bandages - 4 inch	6	3	3	6
Sterile bandage compress or equivalent	6	2	2	6
Sterile gauze pads - 4x4 inch	4	4	4	4
Sterile sheet for Burns	2	2	2	2
Universal dressing 10x30 inches	2	2	2	2

Non-Exchange Dressing Materials/Other Equipment/ Supplies	**BLS**	**LALS**	**ALS Non-Transport**	**ALS Transport**
800 MHz Radio		1	1	1
Ambulance gurney	1 (BLS TRANSPORT UNITS ONLY			1
Bandage shears	1	1	1	1
Blood Borne Pathogen Protective Equipment - (nonporous gloves, goggles face masks and gowns meeting OSHA Standards)	2	1	2	2
Pediatric Emergency Measuring Tape (Broselow, etc.)		1	1	1
Drinkable water in secured plastic container or equivalent	1 gallon			1 gallon
Long board with restraint straps	1	1	1	1
Pediatric immobilization board	1	1	1	1
Pillow, pillow case, sheets and blanket	1 set (BLS TRANSPORT UNITS ONLY			1 set
Short extrication device	1	1	1	1
Straps to secure patient to gurney	1 set (BLS TRANSPORT UNITS ONLY			1 set
Traction splint	1	1	1	1
Triage Tags - ICEMA approved	20	20	20	20

DESTINATION

I. PURPOSE

To establish standards for the transportation of 9-1-1 patients to the most appropriate receiving facility that has the staff and resources to deliver definitive care to the patient. Destination may be determined by patient's need for specialty care services, example STEMI, Stroke and Trauma centers.

II. POLICY

If the patient's condition is stable, the most appropriate destination may be the facility associated with their healthcare plan and primary care physician.

If a patient requires specialty care services at an ICEMA designated STEMI, Stroke, or Trauma Receiving Center, the EMS provider may bypass closer facilities.

Destination decisions should be based on patient condition or patient, guardian, family or law enforcement request. Patients who are unable to request a destination or who do not have a preference shall be taken to the closest hospital unless their condition requires specialty services described below.

III. GENERAL CONSIDERATIONS

- Closest Hospital
  - All patients requiring immediate medical attention for difficult to manage airways or life threatening conditions.
  - Patients that do not have a destination preference.
- Patient Request
  - Honor patient requests if possible and when appropriate.
  - If patient is medically stable and the destination is not significantly beyond the primary response area of the EMS transportation provider.
  - EMS field personnel must obtain an AMA and notify the base hospital if a patient is in need of STEMI, stroke, or trauma services and refuses transport to a Specialty Care Center, or chooses to bypass the recommended Specialty Care Center .
- Higher Level of Care
  - Is dictated by patient condition.
  - ALS providers may bypass a closer facility and transport to a facility that has the capability to provide appropriate specialty care based on the patient's condition.

- Base Hospital
  - Paramedics are encouraged to contact base hospitals for consult on destination for patients with special considerations.

IV. PSYCHIATRIC HOLDS

- All patients with a medical complaint on a behavioral health hold (5150) require medical evaluation, treatment and shall be transported to the closest acute care hospital for medical clearance.
- Any acute care hospital is capable of medically clearing behavioral health patients.
- Patients on a 5150 hold with no medical complaints or conditions, may be released to law enforcement for transport directly to a behavioral health facility.

V. SPECIALTY CARE CENTERS

- STEMI Receiving Centers: (Refer to ICEMA Reference #14240 - Suspected Acute Myocardial Infraction (AMI).
  - STEMI Receiving Centers are the appropriate destination for identified STEMI patients.
  - Once a patient with a STEMI has been identified, make early STEMI notification to the STEMI Receiving Center and prepare patient for expeditious transport.
  - ROSC patients of unknown or suspected cardiac etiology, regardless of 12-lead ECG reading, should be transported to the closest STEMI Receiving Center. If the closest STEMI Receiving Center is greater than 30 minutes, transportation to the closest receiving hospital may be appropriate.
  - STEMI patients with difficult to manage airways shall be transported to the closest receiving hospital.
- Stroke Receiving Centers: (Refer to ICEMA Reference #14080 - Stroke Treatment - Adult.)
  - Stroke Receiving Centers are the appropriate destination for suspected stroke patients identified by using the mLAPSS triage criteria and LAMS Score.
  - Prepare the patient for expeditious transport once a positive mLAPSS is identified and LAMS scale has been completed.
  - Notify the Stroke Receiving Center of the patient's pending arrival as soon as possible to allow timely notification of the stroke team.
  - Identified acute stroke patients with "last seen normal" time plus transport time less than 24 hours, or a "wake-up" stroke, transport to closest Stroke Receiving Center.
  - Transport to closest receiving hospital for patients with "last seen normal" time equaling greater than 24 hours. Base hospital may be contacted to assist with the destination decision.

- Patients with difficult to manage airways shall be transported to the closest receiving hospital.

- Trauma: (Refer to ICEMA Reference #9040 - Trauma Triage Criteria.)
  - Adult patients meeting trauma triage criteria shall be transported to the closest Trauma Center.
  - Pediatric patients meeting trauma triage criteria shall be transported to a pediatric Trauma Center when there is less than a 20 minute difference in transport time between the pediatric Trauma Center and the closest Trauma Center.
  - For patients who meet mechanism of injury criteria per ICEMA Reference #9040 - Trauma Triage Criteria, but have no associated physiologic or anatomic criteria, paramedics are encouraged to contact a trauma base hospital for consultation to determine patient destination. In some cases, trauma base hospital may direct patient to a non-trauma receiving hospital.
  - Make trauma base hospital contact to determine if a Trauma Center should be the destination for patients not meeting the trauma triage criteria but meeting age and/or co-morbid factors.
  - Patients with difficult to manage airways shall be transported to the closest receiving hospital.
  - Traumatic cardiac arrest patients that do not meet determination of death on scene criteria shall be transported to the closest trauma center when the distance **between** the closest hospital and the closest trauma center is less than 20 minutes. ~~with a transport time greater than 15 minutes to a Trauma Center, may be transported to the closest receiving hospital, after consult with a Trauma Base Hospital.~~

- Burn: (Refer to ICEMA Reference #9040 - Trauma Triage Criteria.)
  - Transport any burn patients who meet trauma triage criteria to the closest Trauma Center.
  - Transport pediatric burn patients that meet trauma triage criteria to a pediatric Trauma Center if transport time is less than 20 minutes.
  - Transport minor and moderate burns to the closest receiving hospital.
  - Transport major burns to the closest burn center if transport time is less than 20 minutes.
  - Transport burn patients with respiratory compromise or at high risk for developing respiratory distress to the closest receiving hospital.

VI. INTERFACILITY TRANSFER (Refer to ICEMA Reference #8010 - Interfacility Transfer Guidelines.)

- Patients will be transported to the designated receiving facility. If the patient's condition deteriorates significantly while en route to the designated facility the patient may be diverted to the closest receiving hospital for stabilization.

- EMTs and EMT-Ps may initiate protocols prior to contacting the base hospital for change of destination.

VII. EMS AIRCRAFT ROTATION AND DESTINATION (San Bernardino County Only)

- All EMS Aircraft requests from the field in San Bernardino County will be dispatched by the ICEMA designated Aircraft Dispatch Center (ADC).

- The destination ~~may be changed~~ will be determined by the EMS providers based on patient requirements for specialty centers.

VIII. REFERENCES

Number	Name
8010	Interfacility Transfer Guidelines
9040	Trauma Triage Criteria
14080	Stroke Treatment - Adult
14240	Suspected Acute Myocardial Infraction (AMI)

MEDICATION - STANDARD ORDERS

Medications listed in this protocol may be used only for the purposes referenced by the associated ICEMA Treatment Protocol.

For Nerve Agent Antidote Kit (NAAK) or medications deployed with the ChemPack see Appendix I (Page 12).

Acetaminophen (Tylenol) - Adult (ALS)

For mild to moderate pain scales of 1-5 or in moderate to severe pain where other medications are contraindicated or deferred.

Tylenol, 1 gm IV/IO infusion over fifteen (15) minutes. Single dose only

Acetaminophen (Tylenol) – Pediatric (ALS)

For mild to moderate pain scales of 1-5 or in moderate to severe pain where other medications are contraindicated or deferred.

2 years to 14 years:

Tylenol, 15mg/kg to max of 1000mg or 1 gm IV/IO infusion over fifteen (15) minutes. Single dose only

Reference #s 7010, 7020, 14100

Adenosine (Adenocard) - Adult (ALS)

Stable narrow-complex SVT or Wide complex tachycardia:

Adenosine, 6 mg rapid IVP followed immediately by 20 cc NS bolus, and Adenosine, 12 mg rapid IVP followed immediately by 20 cc NS bolus if patient does not convert. May repeat one (1) time.

Reference #s 7010, 7020, 14040

Albuterol (Proventil) Aerosolized Solution - Adult (LALS, ALS)

Albuterol, 2.5 mg nebulized, may repeat two (2) times.

Reference #s 4060, 7010, 7020, 14010, 14070

Albuterol (Proventil) Aerosolized Solution - Adult (ALS)

For suspected hyperkalemia due to crush injury (entrapment > 4 hours and/or abnormal EKG findings-peaked "T" waves, absent "P" waves and widened QRS):

Albuterol, 2.5 mg nebulized, may repeat two (2) times **or** continuous 7.5mg nebulized

Reference # 14090

Albuterol (Proventil) Metered-Dose Inhaler (MDI) - Adult (BLS, LALS, ALS)

Albuterol MDI, four (4) puffs every 10 minutes for continued shortness of breath and wheezing.

Reference #s 4060, 4080, 7010, 7020, 14120, 14140, 14190

Albuterol (Proventil) - Pediatric (LALS, ALS)

Albuterol, 2.5 mg nebulized, may repeat two (2) times.

Reference #s 7010, 7020, 14120, 14140, 14190

Albuterol (Proventil) Metered-Dose Inhaler (MDI) - Pediatric (BLS, LALS, ALS)

Albuterol MDI, four (4) puffs every 10 minutes for continued shortness of breath and wheezing.

Reference #s 4060, 4080, 7010, 7020, 14120, 14140, 14190

Aspirin, chewable -Adult (LALS, ALS)

Aspirin, 325 mg PO chewed (one (1) adult non-enteric coated aspirin) or four (4) chewable 81 mg aspirin.

Reference #s 4060, 4080, 5010, 7010, 7020

Atropine (ALS) - Adult

Atropine, 1 mg IV/IO. May repeat every five (5) minutes up to a maximum of 3 mg or 0.04 mg/kg.

Organophosphate poisoning:
Atropine, 2 mg IV/IO, repeat at 2 mg increments every five (5) minutes if patient remains symptomatic.

Reference #s 4060, 4080, 7010, 7020, 13010, 14030, 14260

Atropine - Pediatric (ALS)

Organophosphate poisoning - Pediatrics less than 14 years of age:
Atropine, 0.05 mg/kg IV/IO not to exceed adult dose of 2 mg, repeat at 0.1 mg/kg increments every five (5) minutes if patient remains symptomatic.

Reference #s 4060, 4080, 7010, 7020, 13010

Buprenorphine-Naloxone (Suboxone ®)-Adult (ALS):

Opioid Withdrawal- Clinical Opioid Withdrawal Scale ≥ 8:
Buprenorphine-Naloxone, 16 mg/4mg sublingual, may repeat at 8 mg/2mg sublingual after ten (10) minutes if patient remains symptomatic, to a maximum total dose of 24 mg/6mg.

Reference #s 7010, 10050

Calcium Chloride - Adult (ALS) ~~***(base hospital order only)***~~*:*

Calcium Channel Blocker Poisonings (base hospital order only)
Calcium Chloride, 1 gm (10 ml of a 10% solution) IV/IO.

Reference #s 5010, 7010, 7020, 13010

For cardiac arrest with suspected hypocalcemia, hyperkalemia, hypermagnesemia or calcium channel blocker poisoning (base hospital order only)

Calcium Chloride, 1 gm (10 ml of a 10% solution) IV/IO.

Reference #s 7010, 7020, 14050

For End Stage Renal Disease (ESRD) patients on dialysis with suspected hyperkalemia and hemodynamic instability with documented sinus bradycardia, 3rd degree AV Block, 2nd degree Type II AV Block, slow junctional and ventricular escape rhythms, or slow atrial fibrillation. (Base hospital order only).

Calcium Chloride, 1 gm (10 ml of a 10% solution) IV/IO

Reference #s 5010, 7010, 7020, 14030

For suspected hyperkalemia due to crush injury (entrapment > 4 hours and/or abnormal EKG findings- peaked "T" waves, absent "P" waves and widened QRS):

Calcium Chloride, 1 gm (10 ml of a 10% solution) IV/IO

Reference # 14090

Calcium Chloride - Pediatric (ALS) *(base hospital order only)*:

Calcium Channel Blocker Poisonings
Calcium Chloride, 20 mg/kg IV/IO over five (5) minutes.

Reference #s 7010, 7020, 13010

Dextrose - Adult (LALS, ALS)

Hypoglycemia - Adult with blood glucose less than 80 mg/dL:
Dextrose 10% /250 ml (D10W 25 gm) IV/IO Bolus

Reference #s 4060, 4080, 5010, 7010, 7020, 8010, 13020, 13030, 14040, 14060

Dextrose - Pediatric (LALS, ALS)

Hypoglycemia - Neonates (0 - 4 weeks) with blood glucose less than 35 mg/dL or pediatric patients (more than 4 weeks) with glucose less than 60 mg/dL:
Dextrose 10%/250 ml (D10W 25 gm) 0.5 gm/kg (5 ml/kg) IV/IO

Reference #s 5010, 7010, 7020, 13020, 13030, 14150, 14160, 14170

Diazepam – Adult (ALS) *only when midazolam is not commercially available.*

Seizures:
Diazepam , 5 mg IV/IO, single dose only
Diazepam 10mg IM, single dose only

Diazepam- Pediatric *(ALS) only when midazolam is not commercially available*.

Seizures:

Diazepam 0.1mg/kg IV/IO, single dose only, not to exceed adult dose of ***5mg***
Diazepam 0.2mg/kg IM, single dose only, not to exceed adult dose of ***10mg***

Reference #s 7010, 7020, 14170

Diphenhydramine - Adult (ALS)

Diphenhydramine, 25 mg IV/IO

Diphenhydramine, 50 mg IM

Reference #s 4060, 4080, 7010, 7020, 13010, 14010

Diphenhydramine - Pediatric (ALS)

Allergic reaction:

2 years to 14 years	Diphenhydramine, 1 mg/kg slow IV/IO, not to exceed adult dose of 25 mg, **or**
	Diphenhydramine, 2 mg/kg IM not to exceed adult dose of 50 mg IM.

Reference #s 7010, 7020, 14140

Epinephrine (1 mg/ml) - Adult (LALS, ALS)

Severe Bronchospasm, Asthma Attack, Pending Respiratory Failure, Severe Allergic Reactions:
Epinephrine, 0.3 mg IM. May repeat after 15 minutes one (1) time if symptoms do not improve.

Reference # 14010

Epinephrine (0.1 mg/ml) - Adult (ALS)

For persistent severe anaphylactic reaction:
Epinephrine (0.1 mg/ml), 0.1 mg slow IVP/IO. May repeat every five (5) minutes as needed to total dosage of 0.5 mg.

Reference # 14010

Cardiac Arrest, Asystole, PEA:
Epinephrine (0.1 mg/ml), 1 mg IV/IO.

Reference #s 4060, 4080, 5010, 7010, 7020, 14010, 14050, 14260

Epinephrine (0.3 Auto injector) - Adult (BLS, LALS, ALS)

For severe asthma and/or anaphylaxis only

Epinephrine 0.3 mg auto-injector, may repeat once after 15 minutes

Epinephrine (0.15 Auto injector Jr.) - Pediatric (BLS,LALS, ALS)

For anaphylaxis only

Epinephrine 0.15 mg auto-injector

Epinephrine (0.01 mg/ml) - Adult (ALS)

Post resuscitation, persistent profound nontraumatic shock and hypotension, and for persistent shock due to trauma where cardiac arrest is imminent:(Push Dose Epinephrine).

Prepare Epinephrine 0.01 mg/ml solution by mixing 9 ml of normal saline with 1 ml of Epinephrine 0.1 mg/ml in a 10 ml syringe. Administer 1 ml every one (1) to five (5) minutes titrated to maintain SBP more than 90 mm Hg.

Reference #s 4060, 4080, 5010, 7010, 7020, 11010, 14050, 14090,14230

Epinephrine (1 mg/ml) - Pediatric (LALS, ALS)

Severe Bronchospasm, Asthma Attack, Pending Respiratory Failure, Severe Allergic Reactions:
Epinephrine, 0.01 mg/kg IM not to exceed adult dosage of 0.3 mg. May repeat after 15 minutes one (1) time if symptoms do not improve.

Reference #s 4060, 5010, 7010, 7020, 14120, 14140

Epinephrine (0.1 mg/ml) - Pediatric (ALS)

Anaphylactic reaction (no palpable radial pulse and depressed level of consciousness):
Epinephrine (0.1 mg/ml), 0.01 mg/kg IV/IO, no more than 0.1 mg per dose. May repeat to a maximum of 0.5 mg.

Cardiac Arrest:

1 day to 8 years	Epinephrine (0.1 mg/ml), 0.01 mg/kg IV/IO (do not exceed adult dosage)
9 to 14 years	Epinephrine (0.1 mg/ml), 1.0 mg IV/IO

Newborn Care:
Epinephrine (0.1 mg/ml), 0.01 mg/kg IV/IO if heart rate is less than 60 after one (1) minute after evaluating airway for hypoxia and assessing body temperature for hypothermia.

Epinephrine (0.1 mg/ml), 0.005 mg/kg IV/IO every 10 minutes for persistent hypotension as a base hospital order or in radio communication failure.

Reference # 14200

Epinephrine (0.01 mg/ml) - Pediatric (ALS)

Post resuscitation, profound shock and hypotension, for persistent shock due to trauma where cardiac arrest is imminent (Push Dose Epinephrine):
Prepare Epinephrine 0.01 mg/ml solution by mixing 9 ml of normal saline with 1 ml of Epinephrine 0.1 mg/ml in a 10 ml syringe. Administer 0.1 ml/kg (do not exceed adult dosage), every one (1) to five (5) minutes. Titrate to maintain a SBP more than 70 mm Hg.

Reference #s 5010, 7010, 7020, 11010, 14150, 14180, 14230

Fentanyl - Adult (ALS)

Chest Pain (Presumed Ischemic Origin):

Fentanyl, 50 mcg slow IV/IO over one (1) minute. May repeat every five (5) minutes titrated to pain, not to exceed 200 mcg.

Fentanyl, 100 mcg IM/IN. May repeat 50 mcg every 10 minutes titrated to pain, not to exceed 200 mcg.

Acute traumatic injuries, acute abdominal/flank pain, burn injuries, Cancer pain, Sickle Cell Crisis:

Fentanyl, 50 mcg slow IV/IO push over one (1) minute. May repeat every five (5) minutes titrated to pain, not to exceed 200 mcg IV/IO, **or**

Fentanyl, 100 mcg IM/IN. May repeat 50 mcg every 10 minutes titrated to pain, not to exceed 200 mcg.

Pacing, synchronized cardioversion:

Fentanyl, 50 mcg slow IV/IO over one (1) minute. May repeat in five (5) minutes titrated to pain, not to exceed 200 mcg.

Fentanyl, 100 mcg IN. May repeat 50 mcg every 10 minutes titrated to pain, not to exceed 200 mcg.

Any combination of IV/IO/IM/IN may be administered, not to exceed 200 mcg. Contact base hospital for additional orders and to discuss further treatment options.

Reference #s 3050, 4060, 4080, 5010, 7010, 7020, 11020, 13030, 14070, 14090, 14100, 14240

Fentanyl - Pediatric (ALS)

Fentanyl, 0.5 mcg/kg slow IV/IO over one (1) minute. May repeat in five (5) minutes titrated to pain, not to exceed 50 mcg for a single dose.

Fentanyl, 1 mcg/kg IM/IN, may repeat every 10 minutes titrated to pain not to exceed 100 mcg for a single dose.

Any combination of IV/IO/IM/IN may be administered, not to exceed four (4) doses or cumulative maximum of 200 mcg. Contact base hospital for additional orders and to discuss further treatment options.

Reference #s 3050, 4080, 5010, 7010, 7020, 13030, 14180, 14190, 14240

Glucose - Oral - Adult (BLS, LALS, ALS)

Adult with blood glucose less than 80 mg/dL:

Glucose - Oral, one (1) tube for patients with an intact gag reflex and hypoglycemia.

Reference #s 7010, 7020, 13020, 14060, 14080, 14230

Glucose - Oral - Pediatric (BLS, LALS, ALS)

Hypoglycemia - Neonates (0 - 4 weeks) with blood glucose less than 35 mg/dL or pediatric patients (more than 4 weeks) with glucose less than 60 mg/dL:

Glucose - Oral, one (1) tube for patients with an intact gag reflex and hypoglycemia.

Reference #s 7010, 7020, 14170, 14160

Glucagon - Adult (LALS, ALS)

Glucagon, 1 mg IM/SC/IN, if unable to establish IV. May administer one (1) time only.

Beta blocker Poisoning (***base hospital order only***)*:*
Glucagon, 1 mg IV/IO

Reference #s 4060, 4080, 7010, 7020, 13010, 13030, 14060

Glucagon - Pediatric (LALS, ALS)

Hypoglycemia, if unable to establish IV:
Glucagon, 0.03 mg/kg IM/IN, if unable to start an IV. May be repeated one (1) time after 20 minutes for a combined maximum dose of 1 mg.

Reference #s 7010, 7020, 13030, 14160, 14170

Beta blocker poisoning ***(base hospital order only)****:*
Glucagon, 0.03 mg/kg IV/IO

Reference #'s 4060, 4080, 7010, 7020, 13010

Ipratropium Bromide (Atrovent) Inhalation Solution use with Albuterol Adult (ALS)

Atrovent, 0.5 mg nebulized. Administer one (1) dose only.

Reference #s 7010, 7020, 14010, 14070

Ipratropium Bromide (Atrovent) Metered-Dose Inhaler (MDI) use with Albuterol Adult (ALS)

When used in combination with Albuterol MDI use Albuterol MDI dosing.

Reference #s 4060, 4080, 7010, 7020, 14010, 14070

Ipratropium Bromide (Atrovent) Inhalation Solution use with Albuterol - Pediatric (ALS)

1 day to 12 months	Atrovent, 0.25 mg nebulized. Administer one (1) dose only.
1 year to 14 years	Atrovent, 0.5 mg nebulized. Administer one (1) dose only.

Reference #s 7010, 7020, 14120, 14140, 14190

Ipratropium Bromide (Atrovent) Metered-Dose Inhaler (MDI) use with Albuterol - Pediatric (ALS)

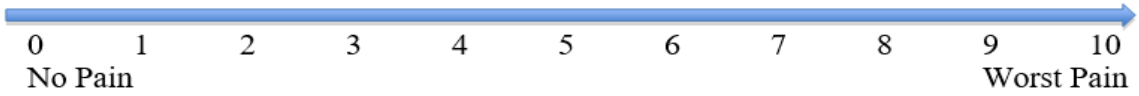
When used in combination with Albuterol MDI use Albuterol MDI dosing.

Reference #s 4060, 4080, 7010, 7020, 14120, 14140, 14190

Ketamine - Adult (ALS)

Acute traumatic injury, acute abdominal/flank pain, burn injuries, cancer related pain and sickle cell crisis:
Ketamine, 0.3 mg/kg to a max of 30 mg in a 50 - 100 ml of NS via IV over five (5) minutes. May repeat one (1) time, after 15 minutes, if pain score remains at five (5) or higher. Do not administer IVP, IO, IM, or IN.

This is the official pain scale to be used in patient assessment and documented on the PCR.



Reference #s 7010, 7020, 14100

Lidocaine - Adult (ALS)

VT (pulseless)/VF:

Initial Dose: Lidocaine, 1.5 mg/kg IV/IO

For refractory *VT (pulseless)/VF*, may administer an additional 0.75 mg/kg IV/IO, repeat one (1) time in five (5) to 10 minutes; maximum total dose of 3 mg/kg.

V-Tach, Wide Complex Tachycardia - with Pulses:

Lidocaine, 1.5 mg/kg slow IV/IO

May administer an additional 0.75 mg/kg slow IV/IO; maximum total dose of 3 mg/kg.

Reference #s 4060, 5010, 7010, 7020, 8010, 11020, 14040, 14050, 14090

Lidocaine - Pediatric (ALS)

Cardiac Arrest:

1 day to 8 years	Lidocaine, 1.0 mg/kg IV/IO
9 to 14 years	Lidocaine, 1.0 mg/kg IV/IO

May repeat Lidocaine at 0.5 mg/kg after five (5) minutes; maximum total dose of 3 mg/kg.

Reference #s 5010, 7010, 7020, 14150

Lidocaine 2% (Intravenous Solution) - Pediatric and Adult (ALS)

Pain associated with IO infusion:

Lidocaine, 0.5 mg/kg slow IO push over two (2) minutes, not to exceed 40 mg total.

Reference #s 5010, 7010, 7020, 11020

Magnesium Sulfate-Adult (ALS)

Polymorphic Ventricular Tachycardia:

Magnesium Sulfate, 2 gm IV/IO bolus over five (5) minutes for polymorphic VT if prolonged QT is observed during sinus rhythm post-cardioversion.

Eclampsia (Seizure/Tonic/Clonic Activity):

Magnesium Sulfate, 4 gm IV/IO slow IV push over three (3) to four (4) minutes.

Magnesium Sulfate, 10 mg/min IV/IO drip to prevent continued seizures.

Reference #s 5010, 7010, 7020, 8010, 14210

Severe Asthma/Respiratory Distress (ALS) ***(base hospital order only)****:*

Magnesium Sulfate, 2 gm slow IV drip over 20 minutes. Do not repeat.

Reference# 14010

Magnesium Sulfate - Pediatric (ALS)

*Severe Asthma/Respiratory Distress **(base hospital order only)**:*

Magnesium Sulfate, 50 mg/kg slow IV drip over 20 minutes. Do not exceed the adult dosage of 2 gm total. Do not repeat.

Reference # 14120

Midazolam (Versed) - Adult (ALS)

Behavioral Emergencies, if patient meets criteria for potentially fatal and dangerous agitation:

Midazolam, 2.5 mg IV/IO. May repeat in five (5) minutes, **or**

Midazolam, 5 mg IM/IN. May repeat in 10 minutes.

Maximum of three (3) doses using any combination of IV/IO/IM/IN may be administered. Contact base hospital for additional orders and to discuss further treatment options.

Reference # 14110

*Post Intubation~~ROSC~~ Agitation **(base hospital order only)**: Agitation following Intubation~~ROSC~~ that hinders patient's care, i.e. biting or attempting to remove ET tube/lines,* **Not to be used for sedation during intubation of any patients**.

Midazolam, 2.5 mg IV/IO **or**

Midazolam 5 mg IM/IN

Patient must have advanced airway (endotracheal tube or i-gel.)

Repeat dose requires base hospital contact.

Reference # 14050

Seizure:

Midazolam, 2.5 mg IV/IO. May repeat in five (5) minutes for continued seizure activity, **or**

Midazolam, 5 mg IM/IN. May repeat in 10 minutes for continued seizure activity.

Assess patient for medication related reduced respiratory rate or hypotension.

Maximum of three (3) doses using any combination of IV/IO/IM/IN may be administered for continued seizure activity. Contact base hospital for additional orders and to discuss further treatment options.

Pacing, synchronized cardioversion:

Midazolam, 2.5 mg slow IV/IO. May repeat in five (5) minutes.

Midazolam, 5 mg IM/IN. May repeat in ten (10) minutes.

Maximum of three (3) doses using any combination of IV/IO/IM/IN may be administered. Contact base hospital for additional orders and to discuss further treatment options.

CPAP:

Midazolam, 1 mg IV/IO/IM/IN may be administered one (1) time for anxiety related to application of CPAP. Contact base hospital for additional orders.

Reference #s 4060, 4080, 7010, 7020, 11020, 13020, 14060, 14210

Midazolam (Versed) - Pediatric (ALS)

Seizures:

Midazolam, 0.1 mg/kg IV/IO with maximum dose 2.5 mg. May repeat Midazolam in five (5) minutes, **or**

Midazolam, 0.2 mg/kg IM/IN with maximum dose of 5 mg. May repeat Midazolam in 10 minutes for continued seizure.

Assess patient for medication related reduced respiratory rate or hypotension.

Maximum of three (3) doses using any combination of IV/IO/IM/IN may be administered for continued seizure activity. Contact base hospital for additional orders and to discuss further treatment options.

Behavioral Emergencies, if patient meets criteria for potentially fatal and dangerous agitation ***(base hospital order):***

Midazolam, 0.1 mg/kg IV/IO. May repeat in five (5) minutes, **or**

Midazolam, 0.2 mg/kg IM/IN. May repeat in 10 minutes.

Assess patient for medication related reduced respiratory rate or hypotension.

Maximum of three (3) doses using any combination of IV/IO/IM/IN may be administered. Not to exceed adult dose. Contact base hospital for additional orders and to discuss further treatment options.

Reference #s 7010, 7020, 14170, 14110

Naloxone (Narcan) - Adult (BLS)

For resolution of respiratory depression related to suspected opiate overdose:

Naloxone, 0.5 mg IM/IN, may repeat Naloxone 0.5 mg IM/IN every two (2) to three (3) minutes if needed to improve respiratory effort.

For suspected Fentanyl overdose with respiratory depression:

Consider a loading dose of 4 mg IN Naloxone. If no signs of respiratory improvement, consider Naloxone 0.5 mg IM/IN every two (2) to three (3) minutes if needed.

Do not exceed 10 mg of Naloxone total regardless of route administered.

Reference #s 7010, 7020, 8030, 14060

Naloxone (Narcan) - Adult (LALS, ALS)

For resolution of respiratory depression related to suspected opiate overdose:

Naloxone, 0.5 mg IV/IO/IM/IN, may repeat Naloxone 0.5 mg IV/IO/IM/IN every two (2) to three (3) minutes if needed to improve respiratory effort.

For suspected Fentanyl overdose with respiratory depression:

Consider a loading dose of 4 mg IN Naloxone, may repeat one (1) time. If no signs of respiratory improvement, consider Naloxone 0.5 mg IV/IO/IM/IN every two (2) to three (3) minutes if needed.

Do not exceed 10 mg of Naloxone total regardless of route administered.

Reference #s 4080, 7010, 7020, 14060

Naloxone (Narcan) - Pediatric (BLS)

For resolution of respiratory depression related to suspected opiate overdose:

1 day to 8 years	Naloxone, 0.1 mg/kg IM/IN (do not exceed the adult dose of 0.5 mg per administration)
9 to 14 years	Naloxone, 0.5 mg IM/IN

May repeat every two (2) to three (3) minutes if needed. Do not exceed the adult dosage of 10 mg total IM/IN.

Reference #s 7010, 7020, 8030, 14150, 14160

Naloxone (Narcan) - Pediatric (LALS, ALS)

For resolution of respiratory depression related to suspected opiate overdose:

1 day to 8 years	Naloxone, 0.1 mg/kg IV/IO/IM/IN (do not exceed the adult dose of 0.5 mg per administration)
9 to 14 years	Naloxone, 0.5 mg IV/IO/IM/IN

May repeat every two (2) to three (3) minutes if needed. Do not exceed the adult dosage of 10 mg total IV/IO/IM/IN.

Reference #s 7010, 7020, 14150, 14160

Nitroglycerin (NTG) -Adult (LALS, ALS)

Nitroglycerin, 0.4 mg sublingual/transmucosal.

One (1) every three (3) minutes as needed. May be repeated as long as patient continues to have signs of adequate tissue perfusion. **If a Right Ventricular Infarction is suspected, the use of nitrates requires base hospital contact.**

Nitroglycerin Paste, 1 inch (1 gm) transdermal, may not repeat.

Nitroglycerin sublingual is the preferred route of administration for ACS. Nitro Paste is a one (1) time dose and intended for when sublingual cannot be easily administered (i.e., CPAP).

Nitroglycerin is contraindicated if there are signs of inadequate tissue perfusion or if sexual enhancement medications have been utilized within the past 48 hours.

Reference #s 4060, 4080, 7010, 7020, 14010, 14240

Ondansetron (Zofran) - Patients four (4) years old to Adult (ALS)

Nausea/Vomiting:

Ondansetron, 4 mg slow IV/IO/ODT

All patients four (4) to eight (8) years old: May administer a total of 4 mgs of Ondansetron prior to base hospital contact.

All patients nine (9) and older: May administer Ondansetron 4 mg; may repeat two (2) times, at 10 minute intervals, for a total of 12 mgs prior to base hospital contact.

May be used as prophylactic treatment of nausea and vomiting associated with narcotic administration.

Reference #s 4080, 7010, 7020, 14090, 14180, 14220

Oxygen - Pediatric and Adult (BLS, LALS. ALS) (non-intubated patient per appropriate delivery device)

General Administration (Hypoxia):
Titrate Oxygen at lowest rate required to maintain SPO_2 at 94%. Do not administer supplemental oxygen for SPO_2 more than 95%.

Chronic Obstructive Pulmonary Disease (COPD):
Titrate Oxygen at lowest rate required to maintain SPO_2 at 90%. Do not administer supplemental oxygen for SPO_2 more than 91%.

Reference #s 12010, 13010, 13020, 13030, 13050, 14010, 14020, 14030, 14040, 14060, 14070, 14090, 14120, 14130, 14140, 14160, 14170, 14180, 14190, 14200, 14210, 14220, 14230, 14240

Sodium Bicarbonate - Adult (ALS)

*Tricyclic Poisoning **(base hospital order only)**:*
Sodium Bicarbonate, 1 mEq/kg IV/IO

Reference #s 5010, 7010, 7020, 13010

*For cardiac arrest with suspected metabolic acidosis, hyperkalemia or tricyclic poisoning **(base hospital order only)**:*
Sodium Bicarbonate, 50 mEq IV/IO/ 50cc preload or 50cc single-dose vial

Reference #'s 7010, 7020, 14050

For suspected hyperkalemia due to crush injury : (entrapment > 4 hours and/or abnormal EKG findings- peaked "T" waves, absent "P" waves and widened QRS):

Sodium Bicarbonate, 50 mEq IV/IO/ 50cc preload or 50cc single-dose vial

Reference # 14090

Sodium Bicarbonate - Pediatric (ALS)

*Tricyclic Poisoning **(base hospital order only)**:*
Sodium Bicarbonate, 1 mEq/kg IV/IO

Reference #'s 7010, 7020, 13010

Tranexamic Acid (TXA) - Patients 15 years of age and older (ALS)

Signs of hemorrhagic shock meeting inclusion criteria:

Administer TXA 1 gm in 50 - 100 ml of NS via IV/IO over 10 minutes. Do not administer IVP as this will cause hypotension.

Signs of postpartum hemorrhagic shock (base hospital order only)

Administer TXA 1 gm in 50 - 100 ml of NS via IV/IO over 10 minutes. Do not administer IVP as this will cause hypotension.

Reference #s 7010, 7020, 14090, 14210, 14230,

APPENDIX I

Medications for self-administration or with deployment of the ChemPack.

Medications listed below may be used only for the purposes referenced by the associated ICEMA Treatment Protocol. Any other use, route or dose other than those listed, must be ordered in consultation with the Base Hospital physician.

Atropine - Pediatric (BLS, AEMT-Auto-injector only with training, ALS)

Known nerve agent/organophosphate poisoning with deployment of the ChemPack using:

Two (2) or more mild symptoms: Administer the weight-based dose listed below as soon as an exposure is known or strongly suspected. If severe symptoms develop after the first dose, two (2) additional doses should be repeated in rapid succession 10 minutes after the first dose; do not administer more than three (3) doses. If profound anticholinergic effects occur in the absence of excessive bronchial secretions, further doses of atropine should be withheld.

One (1) or more severe symptoms: Immediately administer (3) three weight-based doses listed below in rapid succession.

Weight-based dosing:

Less than 6.8 kg (less than 15 lbs):	0.25 mg, IM using multi-dose vial
6.8 to 18 kg (15 to 40 lbs):	0.5 mg, IM using AtroPen auto-injector
18 to 41 kg (40 to 90 lbs):	1 mg, IM using AtroPen auto-injector
More than 41 kg (more than 90 lbs):	2 mg, IM using multi-dose vial

Symptoms of insecticide or nerve agent poisoning, as provided by manufacturer in the AtroPen product labeling, to guide therapy:

Mild symptoms: Blurred vision, bradycardia, breathing difficulties, chest tightness, coughing, drooling, miosis, muscular twitching, nausea, runny nose, salivation increased, stomach cramps, tachycardia, teary eyes, tremor, vomiting, or wheezing.

Severe symptoms: Breathing difficulties (severe), confused/strange behavior, defecation (involuntary), muscular twitching/generalized weakness (severe), respiratory secretions (severe), seizure, unconsciousness, urination (involuntary).

NOTE: Infants may become drowsy or unconscious with muscle floppiness as opposed to muscle twitching.

Reference #s 11010, 13010, 13040

Diazepam (Valium) - Adult (ALS)

For seizures associated with nerve agent/organophosphate exposure ONLY with the deployment of the ChemPack:

Diazepam 10 mg (5 mg/ml) auto-injector IM (if IV is unavailable), **or**
Diazepam 2.5 mg IV

Reference # 13040

Diazepam (Valium) - Pediatric (ALS)

For seizures associated with nerve agent/organophosphate exposure ONLY with the deployment of the ChemPack:

Diazepam 0.05 mg/kg IV

Reference # 13040

Nerve Agent Antidote Kit (NAAK)/Mark I or DuoDote (containing Atropine/Pralidoxime Chloride for self-administration or with deployment of the ChemPack) - Adult

Nerve agent exposure with associated symptoms:

One (1) NAAK auto-injector IM into outer thigh. May repeat up to two (2) times every 10 to 15 minutes if symptoms persist.

Reference #s 7010, 7020, 13010, 13040

TRAUMA - ADULT (15 years of age and older)

I. FIELD ASSESSMENT/TREATMENT INDICATORS

- Any trauma patient meeting Trauma Triage Criteria requiring rapid transportation to the closest Trauma Center.
- Refer to ICEMA Reference #9040 - Trauma Triage Criteria and ICEMA Reference #9030 - Destination.
- Contact the Trauma Center as soon as possible in order to activate the trauma team.
  - ➢ If the closest Trauma Center is outside ICEMA region, and no base orders or consult is needed, EMS field personnel may contact the hospital they will be transporting the patient to.
  - ➢ In Inyo and Mono Counties, the assigned base hospital shall be contacted for determination of appropriate destination.

NOTE: EMS field personnel are not authorized to evaluate patients with suspected concussion for purpose of return to play clearance.

II. BLS INTERVENTIONS

- Ensure thorough initial assessment.
- Ensure patent airway, protecting cervical spine.
- Obtain oxygen saturation (if BLS equipped).
- Administer oxygen and/or ventilate as needed.
- Keep patient warm.
- For a traumatic full arrest, do not delay transport, initiate ~~provide~~ CPR, utilize the AED if indicated and transport to the closest trauma center. ~~most appropriate hospital~~.
- Mechanical cardiopulmonary resuscitation (mCPR) devices are contraindicated for trauma patients.
- When indicated: ~~T~~transport to ALS intercept or to the closest receiving hospital.

Commented [LG1]: Do we need to say this here?

A. Manage Special Considerations

- **Spinal Motion Restriction**: If the patient meet(s) any of the following indicators using the acronym (NSAID):

  N-euro Deficit(s) present?
  S-pinal Tenderness present?
  A-ltered Mental Status?
  I-ntoxication?
  D-istracting Injury?

- Consider maintaining spinal alignment on the gurney, or using spinal motion restriction on an awake, alert and cooperative patient, without the use of a rigid spine board.

- Penetrating trauma without any NSAID indicators are not candidates for spinal motion restriction.

NOTE: The long backboard (LBB) is an extrication tool, whose purpose is to facilitate the transfer of a patient to a transport stretcher and is not intended, or appropriate for achieving spinal motion restriction. Judicious application of the LBB for purposes other than extrication necessitates that EMS field personnel ensure the benefits outweigh the risks. If a LBB is applied for any reason, patients should be removed as soon as it is safe and practical. LBB does not need to be reapplied on interfacility transfer (IFT) patients.

- **Abdominal Trauma**: Cover eviscerated organs with saline dampened gauze. Do not attempt to replace organs into the abdominal cavity.

- **Amputations**: Control bleeding. Rinse amputated part gently with sterile irrigation saline to remove loose debris/gross contamination. Place amputated part in dry, sterile gauze and in a plastic bag surrounded by ice (if available). Prevent direct contact with ice. Document in the narrative who the amputated part was given to.

  Partial Amputation: Splint in anatomic position and elevate the extremity.

- **Bleeding**:

  - Apply direct pressure and/or pressure dressing.

  - When direct pressure or pressure dressing fails, control life threatening bleeding of a severely injured extremity with the application of a tourniquet.

- **Chest Trauma**: If a wound is present, cover it with an occlusive dressing. If the patient's ventilations are being assisted, dress wound loosely, (do not seal). Continuously reevaluate patient for the development of tension pneumothorax.

- **Flail Chest**: Stabilize chest, observe for tension pneumothorax. Consider assisted ventilations.

- **Fractures**: Immobilize above and below the injury. Apply splint to injury in position found except:

  - **Femur**: Apply traction splint if indicated.

  - **Grossly angulated long bone with distal neurovascular compromise**: Apply gentle unidirectional traction to improve circulation.

  - **Check and document distal pulse before and after positioning**.

- **Genital Injuries**: Cover genitalia with saline soaked gauze. If necessary, apply direct pressure to control bleeding. Treat amputations the same as extremity amputations.

- **Head and Neck Trauma**: Place brain injured patients in reverse Trendelenburg (elevate the head of the backboard 15 - 20 degrees), if the patient exhibits no signs of shock.
  - **Eye**: Whenever possible protect an injured eye with a rigid dressing, cup or eye shield. Do not attempt to replace a partially torn globe, stabilize it in place with sterile saline soaked gauze. Cover uninjured eye.
  - **Avulsed Tooth**: Collect teeth, place in moist, sterile saline gauze and place in a plastic bag.
- **Impaled Object**: Immobilize and leave in place. Remove object if it interferes with CPR, or if the object is impaled in the face, cheek or neck and is compromising ventilations.
- **Determination of Death on Scene**: Refer to ICEMA Reference #14250 - Determination of Death on Scene.

III. LIMITED ALS (LALS) INTERVENTIONS

- Perform identified BLS interventions and additional LALS interventions.
- Advanced airway (as indicated).
  - Unmanageable Airway: Transport to the closest most appropriate receiving hospital when the patient requires advanced airway and an adequate airway cannot be maintained with a BVM device.
- Establish IV access.
  - *Unstable*: If BP less than 90 mm Hg and/or signs of inadequate perfusion, start 2nd IV access.
  - *Stable*: Maintain IV if BP more than 90 mm Hg and/or signs of adequate tissue perfusion.

Blunt Trauma:

- *Unstable*: Establish IV NS administer 250 ml bolus. May repeat one (1) time to a maximum of 500 ml.
- *Stable*: Saline lock only, do not administer IV fluids.

Penetrating Trauma:

- Saline lock only, do not administer IV fluids.

Isolated Closed Head Injury:

- *Unstable:* Establish IV NS, administer 250 ml bolus. May repeat one (1) time to a maximum of 500 ml.
- *Stable*: Saline lock only, do not administer IV fluids.

Isolated Extremity Trauma:

- *Unstable:* Establish IV NS, administer 250 ml bolus. May repeat one (1) time to a maximum of 500 ml.

- *Stable*: Saline lock only, do not administer IV fluids.

Crush Injuries with Suspected Hyperkalemia (entrapment > 4 hours and/or abnormal EKG findings-peaked "T" waves, absent "P" waves and widened QRS):

- Establish IV NS, administer 500 ml bolus. May repeat one (1) time to a maximum of 1000 ml.

- Transport to appropriate hospital.

A. Manage Special Considerations

- Consider Push Dose Epi for persistent shock due to trauma where cardiac arrest is imminent, per ICEMA Reference #11010 - Medication - Standard Orders.

- **Spinal Motion Restriction**: LALS personnel should remove LBB devices from patients placed in full spinal motion restriction precautions by first responders and BLS personnel if the patient does not meet any of the following indicators using the acronym (NSAID):

  N-euro Deficit(s) present?
  S-pinal Tenderness present?
  A-ltered Mental Status?
  I-ntoxication?
  D-istracting Injury?

- **Impaled Object**: Remove object upon Trauma base hospital physician order, if indicated.

B. Traumatic Cardiac Arrest

- If patient does not meet determination of death on scene criteria, initiate the resuscitation and rapid transport of traumatic cardiac arrest patients to the closest trauma center.

- All other procedures may be deferred for immediate ambulance loading of patient and performed enroute, with the exception of hemorrhage control, needle thoracostomy, and initiation of CPR.

- When the distance **between** the destination of the closest receiving center and the closest trauma center is less than 20 minutes transport to the closest trauma center.

- For traumatic pediatric arrest contact a pediatric trauma base hospital for destination.

- If organized rhythm is not restored after defibrillation x 3 or patient converst to non-shockable rhythm; refer to ICEMA Reference #12010 Determination of Death on Scene.

CB. **Determination of Death on Scene**: Refer to ICEMA Reference #14250 - Determination of Death on Scene.

- ~~*Severe Blunt Force Trauma Arrest*: If indicated, transport to the closest receiving hospital.~~

- ~~*Penetrating Trauma Arrest*: If indicated, transport to the closest receiving hospital.~~
- Severe blunt force traumatic arrest, pulseless, without signs of life and cardiac electrical activity less than 40 bpm, if indicated, consider pronouncing on scene.

- Penetrating Traumatic arrest, in asystole in at least two (2) leads and no reported vital signs (palpable pulse, and or spontaneous respirations during the EMS encounter with the patient, contact the trauma base hospital for determination of death on scene.

- If the patient does not meet the "Obvious Death Criteria" per ICEMA Reference #14250 - Determination of Death on Scene, contact the Trauma base hospital for determination of death on scene for those patients who suffer a traumatic cardiac arrest in the setting of penetrating trauma and no reported vital signs (palpable pulse and/or spontaneous respirations) during the EMS encounter with the patient.

- Resuscitation efforts on a penetrating traumatic arrest victim are not to be terminated without Trauma base hospital contact.

- **Precautions and Comments**:

  - Electrical injuries that result in cardiac arrest shall be treated as medical arrests.

  - Consider cardiac etiology in older patients in cardiac arrest with low probability of mechanism of injury.

  - If the patient is not responsive to trauma-oriented resuscitation, consider medical etiology and treat accordingly.

  - Unsafe scene may warrant transport despite low potential for survival.

IV. ALS INTERVENTIONS

- Perform identified BLS and LALS intervention and the additional ALS interventions.

- Advanced Airway (as indicated):

  - Unmanageable Airway: If an adequate airway cannot be maintained with a BVM device; **and** the paramedic is unable to intubate or insert SGA or perform a successful needle cricothyrotomy (if indicated), **then** transport to the closest receiving hospital and follow ICEMA Reference #9010 - Continuation of Care (San Bernardino County Only).

- Monitor ECG.
- Establish IV/IO access.
  - *Unstable*: If BP less than 90 mm Hg and/or signs of inadequate perfusion, start 2nd IV access.
  - *Stable*: Maintain IV/IO if BP more than 90 mm Hg and/or signs of adequate tissue perfusion.

  Blunt Trauma:

  - *Unstable*: Establish IV/IO NS administer 250 ml bolus. May repeat one (1) time to a maximum of 500 ml.
  - *Stable*: Saline lock only, do not administer IV fluids.

  Penetrating Trauma:

  - Saline lock only, do not administer IV fluids.

  Isolated Closed Head Injury:

  - *Unstable:* Establish IV/IO NS, administer 250 ml bolus. May repeat one (1) time to a maximum of 500 ml.
  - *Stable*: Saline lock only, do not administer IV fluids.

  Isolated Extremity Trauma:

  - *Unstable:* Establish IV/IO NS, administer 250 ml bolus. May repeat one (1) time to a maximum of 500 ml (avoid placement on injured extremity).
  - *Stable*: Saline lock only, do not administer IV fluids.

Crush Injuries with Suspected Hyperkalemia (entrampment greater than 4 hours and/or abnormal EKG findings- peaked "T" waves, absent "P" waves and widened QRS):

- Establish IV/IO NS, administer 500 ml bolus. May repeat one (1) time to a maximum of 1000 ml.
- Albuterol per ICEMA Reference #11010 - Medication - Standard Orders.
- Calcium Chloride per ICEMA Reference #11010 - Medication - Standard Orders.
- Sodium Bicarbonate per ICEMA Reference #11010 - Medication - Standard Orders.

- Tranexamic Acid (TXA) administration for blunt or penetrating traumas:
  - Must be within three (3) hours of injury and must have either:

- Signs and symptoms of hemorrhagic shock with SBP less than 90 mm Hg.
- Significant hemorrhage with heart rate greater than or equal to 120.
- Bleeding not controlled by direct pressure or tourniquet.
- Pediatric administration is not indicated.

➢ **Blunt Trauma**:

- For signs of hemorrhagic shock meeting inclusion criteria above, administer TXA per ICEMA Reference #11010 - Medication - Standard Orders.

➢ **Penetrating Trauma**:

- For signs of hemorrhagic shock meeting inclusion criteria above, administer TXA per ICEMA Reference #11010 - Medication - Standard Orders.

- Transport to appropriate Trauma Center.
- Insert nasogastric/orogastric tube as indicated.

A. **<u>Manage Special Considerations</u>**

- As a temporary method for chest decompression, in the management of suspected tension pneumothorax, perform needle thoracostomy.

➢ ***Clinical Indications:***

- *Patients with hypotension (SBP less than 90), clinical signs of shock, and at least one of the following signs.*
- *Jugular vein distention.*
- *Tracheal deviation away from the side of the injury (often a late sign).*
- *Absent or decreased breath sounds on the affected side.*
- *Increased resistance when ventilating a patient*

- The midaxillary line at the 5th intercostal space is the preferred site.
.
- Consider bilateral needle thoracostomy if no improvement or in traumatic cardiac arrest.

- **Pain Relief for Acute Traumatic Injuries**:

➢ Administer an appropriate analgesic per ICEMA Reference #14100 - Pain Management. Document vital signs and pain scales every five (5) minutes until arrival at destination

➢ Consider Ondansetron per ICEMA Reference #11010 - Medication - Standard Orders.

~~**B.** **<u>Determination of Death on Scene</u>**: Refer to ICEMA Reference #14250 - Determination of Death on Scene.~~

- ~~*Severe Blunt Force Trauma Arrest:* If indicated, pronounce on scene.~~

- ~~*Penetrating Trauma Arrest*: If indicated, transport to the closest receiving hospital.~~

- ~~If the patient does not meet the "Obvious Death Criteria" per ICEMA Reference #14250 - Determination of Death on Scene, contact the Trauma base hospital for determination of death on scene for those patients who suffer a traumatic cardiac arrest in the setting of penetrating trauma with documented asystole in at least two (2) leads, and no reported vital signs (palpable pulse and/or spontaneous respirations) during the EMS encounter with the patient.~~

V. REFERENCES

Number	Name
9010	Continuation of Care
9030	Destination
9040	Trauma Triage Criteria
11010	Medication - Standard Orders
14050	Cardiac Arrest - Adult
14100	Pain Management
14250	Determination of Death on Scene

DETERMINATION OF DEATH ON SCENE

I. PURPOSE

To identify situations when an EMT, AEMT or EMT-P may be called upon to determine death on scene.

II. POLICY

An EMT, AEMT or EMT-P may determine death on scene if **pulselessness and apnea** are present with any of the following criteria. The EMT-P is authorized to discontinue BLS CPR initiated at scene if a patient falls into the category of obvious death. In any situation where there may be doubt as to the clinical findings of the patient, BLS CPR must be initiated and the base hospital contacted. When death is determined, the County Coroner must be notified along with the appropriate law enforcement agency.

III. DETERMINATION OF DEATH CRITERIA

- Decomposition.
- Obvious signs of rigor mortis such as rigidity or stiffening of muscular tissues and joints in the body, which occurs any time after death and usually appears in the head, face and neck muscles first.
- Obvious signs of venous pooling in dependent body parts, lividity such as mottled bluish-tinged discoloration of the skin, often accompanied by cold extremities.
- Decapitation.
- Incineration of the torso and/or head.
- Massive crush injury.
- Penetrating injury with evisceration of the heart, and/or brain.
- Gross dismemberment of the trunk.

IV. SPECIAL CONSIDERATIONS

- In the event that a patient progresses to cardio/pulmonary arrest while enroute to the hospital in the setting of a completed and verified limitation of treatment document (POLST, DNR, Advanced Directive) the field provider should honor the written limitations and transport the patient to the closest receiving Emergency Department for a medical evaluation" and "The Base Station should advise crew to honor patient's wishes as verified in the valid limitations of treatment and transport to the closest receiving facility for medical evaluation without calling TOD".

- A copy of the patient care report must be made available for the coroner. This will be transmitted to them, when posted, if the disposition is marked "Dead on Scene" and the Destination is marked "Coroner, San Bernardino County" on the electronic patient care report (ePCR).

- The completed ePCR must be posted to the coroner before the end of the shift.

- If unable to post, the use of an approved paper patient care report as a "downtime" form is permitted by ICEMA Reference #5030 - Requirements for Patient Care Reports.

LIMITED ALS (LALS) PROCEDURE

- All terminated LALS resuscitation efforts must have an AED event record attached to the ePCR.

ALS PROCEDURE

- Medical Cardiac arrest patient's ~~All patients~~ in ventricular fibrillation should be resuscitated on scene until ROSC is achieved. If patient remains in VF/VT after 20 minutes of CPR, consult base hospital.

- Severe blunt force trauma, pulseless, without signs of life (palpable pulses and/or spontaneous respirations) and cardiac electrical activity less than 40 bpm or during EMS encounter with the patient meets Determination of Death criteria. All terminated ALS resuscitation efforts must have an ECG attached to the patient care report.

- Consider termination of resuscitation efforts in the prehospital setting if any of the criteria are met in the ICEMA Reference #14050 - Cardiac Arrest - Adult.

V. SUSPECTED SUDDEN INFANT DEATH SYNDROME (SIDS) INCIDENT

It is imperative that all EMS field personnel be able to assist the caregiver and local police agencies during a suspected SIDS incident.

PROCEDURE

- Follow individual department/agency policies at all times.

- Ask open-ended questions about incident.

- Explain what you are doing, the procedures you will follow, and the reasons for them.

- If you suspect a SIDS death, explain to the parent/caregiver what SIDS is and, if this is a SIDS related death nothing they did or did not do caused the death.

- Provide the parent/caregiver with the number of the California SIDS Information Line: **1-800-369-SIDS (7437)**
- Provide psychosocial support and explain the emergency treatment and transport of their child.
- Assure the parent/caregiver that your activities are standard procedures for the investigation of all death incidents and that there is no suspicion of wrongdoing.
- Document observations.

VI. REFERENCES

Number	Name
5030	Requirements for Patient Care Reports
14050	Cardiac Arrest - Adult