



# Inland Counties Emergency Medical Agency

*Serving San Bernardino, Inyo, and Mono Counties*

*Tom Lynch, EMS Administrator*

*Reza Vaezazizi, MD, Medical Director*

**DATE:** May 26, 2015

**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  
Systems Advisory Committee (SAC) Members

**FROM:** Tom Lynch  
EMS Administrator

Reza Vaezazizi, MD  
Medical Director

**SUBJECT:** IMPLEMENTATION OF PROTOCOLS/POLICIES EFFECTIVE JUNE 1, 2015

The attached protocols reflect changes recommended by the Medical Advisory Committee to transition from Morphine Sulfate to Fentanyl between December 1, 2014 and June 1, 2015. ICEMA approved the recommendation allowing EMS providers to deplete its supplies of Morphine Sulfate and provide sufficient training in the indications and use of Fentanyl. These protocols replace the prior references to both medications to reflect Fentanyl only.

The protocols listed below are effective June 1, 2015.

ICEMA Reference Number and Name

- 6090 - Fireline Paramedic
- 6110 - Tactical Medicine Program
- 7010 - BLS/LALS/ALS Standard Drug & Equipment List
- 7020 - EMS Aircraft Standard Drug & Equipment List
- 7030 - Controlled Substance Policy
- 7040 - Medication - Standard Orders
- 11060 - Suspected Acute Myocardial Infarction
- 11100 - Burn - Adult (15 years of age and older)
- 13030 - Cold Related Emergencies
- 14070 - Burns - Pediatric (Less than 15 years of age)
- 15010 - Trauma - Adult (15 years of age and older)
- 15020 - Trauma - Pediatric (Less than 15 years of age)

If you have any questions, please contact Ron Holk, RN, EMS Nurse at 909-388-8508 or via e-mail at [Ron.Holk@cao.sbcounty.gov](mailto:Ron.Holk@cao.sbcounty.gov).

TL/RV/RH/jlm

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**POLICIES/PROTOCOLS CHANGES EFFECTIVE JUNE 1, 2015**

<b>Reference #</b>	<b>Name</b>	<b>Changes</b>
<b>NEW</b>		
None		
<b>1000 ACCREDITATION AND CERTIFICATION</b>		
None		
<b>2000 DATA COLLECTION</b>		
None		
<b>3000 EDUCATION</b>		
None		
<b>4000 QUALITY IMPROVEMENT</b>		
None		
<b>5000 MISCELLANEOUS SYSTEM POLICIES</b>		
None		
<b>6000 SPECIALTY PROGRAM/ PROVIDER POLICIES</b>		
6090	Fireline Paramedic	Reformatted; change to Fentanyl only; remove Morphine, Dextrose 25%, and Dextrose 50%.
6110	Tactical Medicine Program	Reformatted; change to Fentanyl only.
<b>7000 STANDARD DRUG &amp; EQUIPMENT LISTS</b>		
7010	BLS/LALS/ALS Standard Drug & Equipment List	Change to Fentanyl only; remove Morphine, Dextrose 25%, and Dextrose 50%.
7020	EMS Aircraft Standard Drug & Equipment List	Change to Fentanyl only; remove Morphine, Dextrose 25%, and Dextrose 50%.
7030	Controlled Substance Policy	Reformatted; change to Fentanyl only; remove Morphine, Dextrose 25%, and Dextrose 50%.
7040	Medication - Standard Orders	Change to Fentanyl only; remove Morphine, Dextrose 25%, and Dextrose 50%.
<b>8000 TRANSPORT/TRANSFERS AND DESTINATION POLICIES</b>		
None		
<b>9000 GENERAL PATIENT CARE POLICIES</b>		
None		
<b>10000 SKILLS</b>		
None		

**POLICIES/PROTOCOLS CHANGES EFFECTIVE JUNE 1, 2015**

<b>11000 ADULT EMERGENCIES</b>		
11060	Suspected Acute Myocardial Infarction	Remove Morphine.
11100	Burn - Adult (15 years of age and older)	Change to Fentanyl only; remove Morphine.
<b>12000 END OF LIFE CARE</b>		
None		
<b>13000 ENVIRONMENTAL EMERGENCIES</b>		
13030	Cold Related Emergencies	Change to Fentanyl only; remove Morphine.
<b>14000 PEDIATRIC EMERGENCIES</b>		
14070	Burns - Pediatric (Less than 15 years of age)	Change to Fentanyl only; remove Morphine.
<b>15000 TRAUMA</b>		
15010	Trauma - Adult (15 years of age and older)	Change to Fentanyl only; remove Morphine.
15020	Trauma - Pediatric (Less than 15 years of age)	Change to Fentanyl only; remove Morphine.
<b>DELETIONS</b>		
None		

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<b>SERIES</b>	<b>SYSTEM POLICIES AND PROCEDURES</b>	<b>EFFECTIVE DATE</b>
<b>1000</b>	<b>ACCREDITATION, CERTIFICATION and AUTHORIZATION</b>	
1020	First Responder Certification Requirements	05/01/94
1030	EMT Certification	08/15/14
1040	EMT-P Accreditation	08/15/14
1050	MICN Authorization - Base Hospital, Administrative, Flight Nurse, Critical Care Transport	08/15/14
1060	Certification/Accreditation Review Policy	12/01/14
1070	EMT/AEMT Incident Investigation, Determination of Action, Notification, and Administrative Hearing Process	08/15/14
1090	Criminal History Background Checks (Live Scan)	08/15/14
1100	AEMT Certification	08/15/14
<b>2000</b>	<b>DATA COLLECTION</b>	
2010	Requirements for Patient Care Records	05/01/06
2020	ICEMA Abbreviation List	03/15/12
2030	Minimum Documentation Requirements for Transfer of Patient Care	03/15/12
2120	Instructions for the 01A/F1612 Forms	04/01/09
<b>3000</b>	<b>EDUCATION</b>	
3020	Continuing Education Provider Requirements	03/15/11
3030	EMT Continuing Education Requirements	03/15/11
<b>4000</b>	<b>QUALITY IMPROVEMENT</b>	
4010	Continuous Quality Improvement Plan	02/28/11
<b>5000</b>	<b>MISCELLANEOUS SYSTEM POLICIES</b>	
5010	Licensure Changes 911 Receiving Hospitals	01/01/10
5020	Base Hospital Selection Criteria	07/15/00
5030	Procedure for Adoption of Protocols and Policies	06/01/14
5040	Radio Communication Policy	03/15/11
5050	Medical Response to a Multi-Casualty Incident	04/01/13
5050 I/Mono Annex	Inyo and Mono Counties Medical Response to a Multi-Casualty Incident	05/01/11
5060	MCI Definitions/Key ICS Positions	01/01/10
5070	Medical Response to Hazardous Materials/Terrorism Incident	04/01/13
5080	ICEMA Ground Based Ambulance Rate Setting Policy-San Bernardino County	05/08/12
5090	2014/2015 Fee Schedule	07/01/14
<b>6000</b>	<b>SPECIALTY PROGRAM/ PROVIDER POLICIES</b>	
6010	Paramedic Vaccination Policy	04/01/13
6030	AED Service Provider Policy - Public Safety	09/15/11
6040	Lay Rescuer AED Implementation Guidelines	09/15/11
6060	Specialty and Optional Scope Program Approval Policy	11/01/09

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<b>SERIES</b>	<b>SYSTEM POLICIES AND PROCEDURES</b>	<b>EFFECTIVE DATE</b>
<b>6000</b>	<b>SPECIALTY PROGRAM/ PROVIDER POLICIES (CONTINUED)</b>	
6070	Cardiovascular ST Elevation Myocardial Infarction Receiving Centers Criteria and Destination Policy	12/01/14
6080	Paramedic Blood Draw for Chemical Test at the Request of a Peace Officer	04/01/13
6090	Fireline Paramedic <b>REVISED</b>	<b>06/01/15</b>
6100	Neurovascular Stroke Receiving Centers Criteria and Destination Policy ( <i>San Bernardino County Only</i> )	12/01/14
6110	Tactical Medicine Program <b>REVISED</b>	<b>06/01/15</b>
6120	Emergency Medical Dispatch Center Requirements ( <i>San Bernardino County Only</i> )	08/15/13
6130	Medical Priority Dispatch Minimum Response Assignments for Emergency Medical Dispatch (EMD) Categories	08/15/13
6140	Smoke Inhalation/CO Exposure/Suspected Cyanide Toxicity	06/01/14
6150	Trial Study Participation	03/01/15
<b>7000</b>	<b>STANDARD DRUG &amp; EQUIPMENT LISTS</b>	
7010	BLS/LALS/ALS Standard Drug & Equipment List <b>REVISED</b>	<b>06/01/15</b>
7020	EMS Aircraft Standard Drug & Equipment List <b>REVISED</b>	<b>06/01/15</b>
7030	Controlled Substance Policy <b>REVISED</b>	<b>06/01/15</b>
7040	Medication - Standard Orders <b>REVISED</b>	<b>06/01/15</b>
<b>8000</b>	<b>TRANSPORT/TRANSFERS AND DESTINATION POLICIES</b>	
8010	Interfacility Transfer Guidelines	09/15/13
8020	Critical Care Interfacility Transport	12/01/14
8050	Transport of Patients (BLS)	02/01/92
8060	Requests for Hospital Diversion Policy ( <i>San Bernardino County Only</i> )	04/01/13
8070	Aircraft Rotation Policy ( <i>San Bernardino County Only</i> )	04/01/13
8090	Fort Irwin Continuation of Trauma Care	06/25/10
8110	EMS Aircraft Permit Policy	10/01/13
8120	Continuation of Care ( <i>San Bernardino County Only</i> )	12/01/14
8130	Destination Policy	06/01/14
	<b>PATIENT CARE POLICIES</b>	
<b>9000</b>	<b>GENERAL PATIENT CARE POLICIES</b>	
9010	General Patient Care Guidelines	04/01/13
9020	Physician on Scene	04/01/13
9030	Responsibility for Patient Management Policy	04/01/13
9040	Reporting Incidents of Suspected Abuse Policy	04/01/13
9050	Organ Donor Information	04/01/13
9060	Local Medical Emergency Policy	02/01/14
9070	Applying Patient Restraints Guidelines	05/01/06
9080	Care of Minors in the Field	05/01/06
9090	Patient Refusal of Care - Adult	06/01/14
9110	Treatment of Patients with Airborne Infections & Transport Recommendations	09/15/11
9120	Nausea and Vomiting	12/01/14

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<b>SERIES</b>	<b>PATIENT CARE POLICIES</b>	<b>EFFECTIVE DATE</b>
<b>10000</b>	<b>SKILLS</b>	
10190	ICEMA Approved Skills	06/01/14
<b>11000</b>	<b>ADULT EMERGENCIES (15 YEARS OF AGE AND OLDER)</b>	
11010	Adult Respiratory Emergencies	08/15/14
11020	Airway Obstruction - Adult	08/15/14
11040	Bradycardias - Adult	08/15/14
11050	Tachycardias - Adult	08/15/14
11060	Suspected Acute Myocardial Infarction (AMI) <b>REVISED</b>	<b>06/01/15</b>
11070	Cardiac Arrest - Adult	08/15/14
11080	Altered Level of Consciousness/Seizures - Adult	08/15/14
11090	Shock (Non-Traumatic)	08/15/14
11100	Burns - Adult <b>REVISED</b>	<b>06/01/15</b>
11110	Stroke Treatment - Adult	12/01/14
<b>12000</b>	<b>END OF LIFE CARE</b>	
12010	Determination Of Death on Scene	08/15/14
	Coroners Worksheet of Death - EMS Report of Death Form	09/15/12
12020	Withholding Resuscitative Measures	10/01/14
<b>13000</b>	<b>ENVIRONMENTAL EMERGENCIES</b>	
13010	Poisonings	08/15/14
13020	Heat Related Emergencies	08/15/14
13030	Cold Related Emergencies <b>REVISED</b>	<b>06/01/15</b>
<b>14000</b>	<b>PEDIATRIC EMERGENCIES (LESS THAN 15 YEARS OF AGE)</b>	
14010	Respiratory Emergencies - Pediatric	08/15/14
14020	Airway Obstruction - Pediatric	08/15/14
14030	Allergic Reactions - Pediatric	08/15/14
14040	Cardiac Arrest - Pediatric	08/15/14
14050	Altered Level of Consciousness - Pediatric	08/15/14
14060	Seizure - Pediatric	08/15/14
14070	Burns - Pediatric <b>REVISED</b>	<b>06/01/15</b>
14080	Obstetrical Emergencies	08/15/14
14090	Newborn Care	08/15/14
<b>15000</b>	<b>TRAUMA</b>	
15010	Trauma - Adult (15 years of age and older) <b>REVISED</b>	<b>06/01/15</b>
15020	Trauma - Pediatric (Less than 15 years of age) <b>REVISED</b>	<b>06/01/15</b>
15030	Trauma Triage Criteria & Destination Policy	08/15/14
15040	Glasgow Coma Scale Operational Definitions	04/01/13
15050	Hospital Emergency Response Team (HERT) Policy	10/15/13



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## **FIRELINE PARAMEDIC**

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### **I. PURPOSE**

To provide guidance and medical oversight for an ICEMA paramedic (EMT-P) deployed to function as a fireline paramedic (FEMP).

This protocol is for use by authorized FEMPs during fire suppression activities and treatment of fire suppression personnel only.

### **II. REQUIREMENTS**

1. Must be a currently licensed paramedic in California.
2. Must be currently accredited paramedic in the ICEMA region.
3. Must be currently employed by an ICEMA approved ALS provider.
4. The FEMP will follow FIRESCOPE FEMP ICS 223-11 Position Manual and all other ICS protocols.
5. The FEMP will check in and obtain briefing from the Logistics Section Chief or the Medical Unit Leader, if established. Briefing will include current incident situation, anticipated medical needs, and local emergency medical system orientation.
6. The FEMP will provide emergency medical treatment to personnel operating on the fireline.
7. The FEMP will follow ICEMA prior to contact protocols if unable to contact the assigned base station.
8. The FEMP may not perform skills outside of the ICEMA scope of practice.

### **III. PROCEDURE**

1. The EMS provider will notify ICEMA of the deployment of the FEMP to an incident.
2. The FEMP will carry inventory in the advanced life support (ALS) pack as per the attached inventory list. Inventory will be supplied and maintained

by the employing provider agency. Additional items for restock should also be maintained and secured in a vehicle or in the Medical Unit trailer.

3. Incident Medical Units may not have the capability of resupplying controlled substances (narcotics). Providers should stock sufficient quantities of medical supplies and medications, especially controlled substance medications, to assure adequate supplies and medications.
4. Narcotics must be under double lock and maintained on the FEMP person or secured in his/her vehicle at all times as per the ICEMA Drug and Equipment List.
5. FEMP may carry an inventory of controlled substances (i.e., Fentanyl and Midazolam) if authorized by the employing agency’s Medical Director. The authorizing Medical Director is responsible to assure full compliance with all federal and state laws relating to purchase, storage and transportation of controlled substances. Only controlled substances approved for use in the ICEMA region may be carried and their use must be in accordance with current ICEMA patient care protocols.
6. Radio communication failure protocols will not be used. Prior to base contact protocols will be followed. If further treatment is needed, radio contact with the base hospital should be established as soon as possible.
7. Documentation of patient care must follow ICEMA protocol utilizing the ePCR, if available, or a paper OIA form. All patient care records will be reviewed by the provider agency and ICEMA for QI purposes.
8. A FEMP will be paired with a fireline EMT (FEMT) or another FEMP who will assist with basic life support (BLS) treatment and supplies.

**IV. FIRELINE EMT-P (ALS) PACK INVENTORY**

*Minimum Requirements. The weight of the pack will dictate if the EMT-P chooses to carry additional ALS supplies.*

**MEDICATIONS/SOLUTIONS**

<b>Medications/Solutions</b>	<b>ALS</b>
Albuterol Solution 2.5 mg Handheld Nebulizer or Multidose Inhaler	4
Atropine Sulfate 1 mg	2
Ipratropium Bromide Solution 0.5 mg Handheld Nebulizer or Multidose Inhaler	4
Lidocaine 100 mg IV pre-load	2

Medications/Solutions	ALS
Aspirin 80 mg chewable	1 bottle
Dextrose 10%/250 ml (D10W 25 gm) IV/IO Bolus	1
Diphenhydramine 50 mg	4
Epinephrine 1: 10,000 1 mg	2
Epinephrine 1: 1000 1 mg	4
Glucagon 1 mg	1
Nitroglycerin spray 0.4 metered dose	1
Saline 0.9% IV 1000 ml may be divided in two 500 ml bags or four 250 ml bags.	

### CONTROLLED SUBSTANCE MEDICATIONS

Controlled Substance Medications MUST BE DOUBLED LOCKED	ALS
Midazolam	20 mg
Fentanyl (amount determined by the medical director)	200 - 400 mcg

### ALS AIRWAY EQUIPMENT

Airway Equipment	ALS
Endotracheal Tubes - 6.0, 7.0 and/or 7.5 cuffed with stylet	1 each
Laryngeal blades - #0, #1, #2, #3, #4 curved and/or straight	1 each
Laryngoscope handle with batteries - or 2 disposable handles	1 each
King Airway - Size 3, 4, and 5	1 each
ET Tube holder	1
End Tidal CO2 Detector	1
Needle Cricothyrotomy Kit	1
Needle Thoracostomy Kit	1

### IV/MEDICATION ADMINISTRATION SUPPLIES

IV/Medication Administration Supplies	ALS
IV administration set macro drip	2
Venaguard	2
Alcohol preps	6
Betadine swabs	4
Tourniquet	2
Razor	1

<b>IV/Medication Administration Supplies</b>	<b>ALS</b>
Tape	1
IV catheters - 14, 16, 18 and 20 gauge	2
10cc syringe	2
1 cc TB syringe	2
18 gauge needle	4
25 gauge needle	2

### MISCELLANEOUS EQUIPMENT

<b>Miscellaneous</b>	<b>ALS</b>
Sharps container	1
Narcotic storage per protocol	
FEMP pack inventory sheet	1
Patient care record or ePCR (Toughbook)	
AMA forms	3

<b>Equipment</b>	<b>ALS</b>
Compact AED or compact monitor defibrillator combination	
Appropriate cardiac pads	
Pulse oximetry (optional)	
Glucometer, test strips and lancets	4

The BLS pack and supplies will be carried by the FEMT or accompanying FEMP. Personal items and supplies cannot be carried in either the ALS pack or the BLS pack.



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## TACTICAL MEDICINE PROGRAM

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### I. PURPOSE

To provide medical oversight and continuous quality improvement and establish policies and procedures for EMS personnel assigned to Tactical Medicine Programs within the ICEMA region.

### II. POLICY

1. Tactical Medicine Programs shall be developed and utilized in accordance with the “California POST/EMSA Tactical Medicine Operational Programs and Standardized Training Recommendations” document that can be located on the EMSA website at: [http://www.emsa.ca.gov/personnel/files/Tactical Medicine.pdf](http://www.emsa.ca.gov/personnel/files/Tactical%20Medicine.pdf).
2. Tactical Medicine Programs and their medical personnel (Emergency Medical Technicians (EMTs), Advanced EMT (AEMTs), Paramedics (EMT-Ps), and Registered Nurses (RNs)) shall be integrated into the local EMS system, in coordination with ICEMA, the local Emergency Medical Services (EMS) Agency (POST, 2010).
3. Tactical medicine programs shall be reviewed and approved by ICEMA.
4. Administration of this policy applies to EMTs, AEMTs, EMT-Ps, and RNs providing medical services within an established EMS Agency and as part of a recognized Tactical Medical Program.
  - a. The medical scope of practice for EMTs, AEMTs and EMT-Ps is consistent with Title 22, Division 9 and all ICEMA protocols.
5. Tactical Medicine Programs should designate a Tactical Medicine Program Director as defined within POST and EMSA guidelines.
6. Tactical Medicine Programs should designate a physician as a Tactical Medicine Medical Director “to provide medical direction, continuous quality improvement, medical oversight, and act as a resource for medical contingency planning” (POST, 2010).
7. Tactical Medicine Operational Programs should have components pertaining to planning, medical oversight, quality improvement and training as defined in *Tactical Medicine Operational Programs and Standardized Training Recommendations* (POST, 2010; Section 2.2.1-7).

8. Tactical Medicine Programs should include tactical medical personnel in mission planning and risk assessment to ensure appropriate assets are available for the identified mission as defined in *Tactical Medicine Operational Programs and Standardized Training Recommendations* (POST, 2010; Section 2.2.2).

### III. PROCEDURE

1. All agencies that intend to provide a Tactical Medicine Program will:
  - a. Submit an ICEMA approved application for a Specialty Program for review by ICEMA.
  - b. Submit a copy of the proposed program to include all information as listed on the application.
  - c. Provide a list of all RNs, EMTs and EMT-Ps assigned to the Tactical Medicine Program.
  - d. Tactical medical personnel must be:
    - 1) EMT-Ps must be California licensed and accredited by ICEMA.
    - 2) EMTs and AEMTs must be California certified.
    - 3) RNs must be licensed as a Registered Nurse in California and an approved Flight Nurse, MICN, or EMT-P within the ICEMA region.
  - e. Participate in ICEMA approved Continuous Quality Improvement process.

### IV. TRAINING

Designated Tactical Emergency Medical Support (TEMS) personnel shall successfully complete all initial and ongoing recommended training provided by an approved tactical medicine training program as listed in the “California POST/EMSA *Tactical Medicine Operational Programs and Standardized Training Recommendations* - March 2010 document.

### V. DRUG AND EQUIPMENT LISTS

Equipment and supplies carried and utilized by Tactical Emergency Medical Support (TEMS) personnel shall be consistent with the items listed in the California POST / EMSA *Tactical Medicine Operational Programs and Standardized Training Recommendations* document. Equipment and supplies shall be based on

the appropriate level of personnel utilized for the particular Tactical Medicine Program (TEMS BLS or TEMS ALS).

The Tactical Medicine Program standard list of drugs and equipment carried by TEMS BLS or TEMS ALS medical personnel must be reviewed and approved by ICEMA prior to issue or use by EMT or EMT-P personnel.

### TACTICAL MEDICINE OPERATIONAL EQUIPMENT RECOMMENDATIONS

Medications	BLS	ALS
Albuterol 2.5mg with Atrovent 0.5mg MDI		1
Aspirin 81mg		1 bottle
Atropine Sulfate 1mg preload		1
Dextrose 50% 25gm preload		1
Diphenhydramine 50mg		2
Epinephrine (1:1000) 1mg		2
Epinephrine (1:10,000)1mg preload		2
Glucagon 1mg		1
Naloxone 2mg preload		2
Nerve Agent Antidote (DuoDote)		1
Nitroglycerine 0.4 metered dose or tablets (tablets to be discarded 90 days after opening)		1
Normal Saline 500ml		2
Ondansetron 4mg IV/IM/oral tabs		4

### CONTROLLED SUBSTANCE MEDICATIONS

Controlled Substance Medications MUST BE DOUBLED LOCKED	BLS	ALS
Midazolam		20 mgs
Fentanyl		200 - 400 mcg

### AIRWAY EQUIPMENT

Airway Equipment	BLS	ALS
Chest seal and Flutter Valve		1
End Tidal CO2 (device may be integrated into bag)		1
Endotracheal Tubes - 6.0 and/or 6.5, 7.0 and/or 7.5, and 8.0 and/or 8.5 with stylet		1 each
ET Tube holder		1
King LTS-D Size 4 and 5	1 each if approved	1 each
Laryngoscope Kit		1
Nasopharyngeal Airways Adult	1set	1set
Needle Cricothyrotomy Device		1
Needle Thoracostomy Kit		1

<b>Airway Equipment</b>	<b>BLS</b>	<b>ALS</b>
Suction (hand held)	1	1
Ventilation Bag collapsible (BVM)	1	1

#### IV/MONITORING EQUIPMENT

<b>IV/Needle/Syringes</b>	<b>BLS</b>	<b>ALS</b>
AED (with waveform monitoring preferred)	1	1
AED Pads	1	1
Blood Pressure Cuff	1	1
IO Device and Needles		1
IV Needles 14-20 Gauge		1 of each
IV Start Kit		1
IV Tubing		1
Pulse Oximeter (optional)		1
Saline Flush		2
Saline Lock		2
Stethoscope	1	1
Syringes 3cc,5cc,10cc		1 each

#### DRESSING AND SPLINTING

<b>Dressing/Splints</b>	<b>BLS</b>	<b>ALS</b>
CoTCCC - Recommended Tourniquet system	1	1
Elastic compression dressing	1	1
Latex free gloves	1	1
N95 Mask	1	1
Occlusive dressing	1	1
Roller bandage	1	1
Splint - semi-ridged moldable	1	1
Sterile gauze pads	1	1
Tape	1	1
Trauma dressing	1	1
Trauma shears	1	1
Triangle bandage	1	1
Hemostatic impregnated gauze non-exothermic, i.e., Combat Gauze (optional)	2	2

#### MISCELLANEOUS EQUIPMENT

<b>Miscellaneous Equipment</b>	<b>BLS</b>	<b>ALS</b>
Litter	1	1
Patient care record	1	1
Personal protection equipment (PPE)	1	1
Triage tags	10	10

Miscellaneous Equipment	BLS	ALS
Tactical light	1	1
Eyewear	1	1
Rescue blanket	1	1
Self-heating blanket	1	1



## BLS/LALS/ALS STANDARD DRUG & EQUIPMENT LIST

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
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
Albuterol MDI with spacer		1 SPECIALTY PROGRAMS ONLY	1 SPECIALTY PROGRAMS ONLY	1 SPECIALTY PROGRAMS ONLY
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			1	1
Dopamine 400 mg			1	1
Epinephrine 1:1000 1 mg		2	2	2
Epinephrine 1:10,000 1 mg preload			3	3
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 100 mg			3	3
Lidocaine 1 gm or 1 bag pre-mixed 1 gm/250 cc D5W			1	1
Lidocaine 2% Intravenous solution			1	1
Lidocaine 2% (Viscous) dose			1	1
Magnesium Sulfate 10 gm			1	1
Naloxone (Narcan) 2 mg preload		2	2	2
Nitroglycerine - Spray 0.4 mg metered dose and/or tablets (tablets to be discarded 90 days after opening)		2	1	2
Normal Saline for Injection (10 cc)		2	2	2

Exchanged Medications/Solutions	BLS	LALS	ALS Non-Transport	ALS Transport
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
Phenylephrine HCL - 0.5 mg per metered dose			1 bottle	1 bottle
Procainamide 1 gm			1	2
Sodium Bicarbonate 50 mEq preload			2	2
Verapamil 5 mg			3	3

### CONTROLLED SUBSTANCE MEDICATIONS

Non-Exchange Controlled Substance Medications MUST BE DOUBLE LOCKED	BLS	LALS	ALS Non-Transport	ALS Transport
Fentanyl			200-400 mcg	200-400 mcg
Midazolam			20-40mg	20-40mg

### AIRWAY/SUCTION EQUIPMENT

Exchanged Airway/Suction Equipment	BLS	LALS	ALS Non-Transport	ALS Transport
BAAM Device			1	2
CPAP circuits - all manufacture's available sizes			1 each	2 each
End Title 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
Endotracheal Tubes, uncuffed - 2.5, 3.0, 3.5 with stylet			2 each	2 each
Endotracheal Tubes, uncuffed - 4.0 or 4.5, 5.0 or 5.5 with stylet			2 each	2 each
ET Tube holders - pediatric and adult		1 each	1 each	2 each
King LTS-D Adult: Size 3 (yellow) Size 4 (red) Size 5 (purple)	2 each SPECIALTY PROGRAMS ONLY	1 each	1 each	2 each
King Ped: 12-25 kg: Size 2 (green) 25-35 kg: Size 2.5 (orange)	2 each SPECIALTY PROGRAMS ONLY	1 each	1 each	2 each
Mask - Adult & Pediatric non-rebreather oxygen mask	2 each	2 each	2 each	2 each
Mask - Infant 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

<b>Exchanged Airway/Suction Equipment</b>	<b>BLS</b>	<b>LALS</b>	<b>ALS Non-Transport</b>	<b>ALS Transport</b>
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
One way flutter valve with adapter or equivalent			1	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

<b>Non-Exchange Airway/Suction Equipment</b>	<b>BLS</b>	<b>LALS</b>	<b>ALS Non-Transport</b>	<b>ALS Transport</b>
Ambulance oxygen source -10 L /min for 20 minutes	1			1
Flashlight/penlight	1	1	1	1
Laryngeal 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

<b>Exchanged IV/Needles/Syringes/Monitor Equipment</b>	<b>BLS</b>	<b>LALS</b>	<b>ALS Non-Transport</b>	<b>ALS Transport</b>
Conductive medium or Pacer/Defibrillation pads			2 each	2 each
Disposable Tourniquets		2	2	2
ECG electrodes			20	20

<b>Exchanged IV/Needles/Syringes/Monitor Equipment</b>	<b>BLS</b>	<b>LALS</b>	<b>ALS Non- Transport</b>	<b>ALS Transport</b>
EZ-IO Needles and Driver 15 mm, 25 mm, and 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
3-way stopcock with extension tubing			2	2
IV Catheters - sizes 14, 16, 18, 20, 22, 24		2 each	2 each	2 each
Macro drip Administration Set		3	3	3
Micro drip Administration Set (60 drops /cc)		1	1	2
Mucosal Atomizer Device (MAD) for nasal administration of medication		2	2	4
Pressure Infusion Bag (disposable)		1	1	1
Razors		1	2	2
Safety Needles - 20 or 21 gauge and 23 or 25 gauge		2 each	2 each	2 each
Saline Lock Large Bore Tubing Needless		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

<b>Non-Exchange IV/Needles/Syringes/Monitor Equipment</b>	<b>BLS</b>	<b>LALS</b>	<b>ALS Non- Transport</b>	<b>ALS Transport</b>
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
Thermometer - Mercury Free with covers	1	1	1	1

### OPTIONAL EQUIPMENT/MEDICATIONS

<b>Non-Exchange Optional Equipment/Medications</b>	<b>BLS</b>	<b>LALS</b>	<b>ALS Non- Transport</b>	<b>ALS Transport</b>
AED/defib pads - Adult (1), Pediatric (1)	1 each	1 each		
Ammonia Inhalants			2	2
Automatic CPR device (FDA approved)	1	1	1	1
Automatic ventilator (ICEMA approved)			1	1
Backboard padding	1	1	1	1
Buretrol			1	1
Chemistry profile tubes			3	3
CyanoKit (Specialty Program Only)			1	1
EMS Tourniquet	1		1	1

Non-Exchange Optional Equipment/Medications	BLS	LALS	ALS Non-Transport	ALS Transport
Endotracheal Tubes, cuffed - 2.5, 3.0, 3.5 with stylet			SPECIALTY PROGRAMS ONLY	SPECIALTY PROGRAMS ONLY
Endotracheal Tubes, cuffed - 4.0 or 4.5, 5.0 or 5.5 with stylet			SPECIALTY PROGRAMS ONLY	SPECIALTY PROGRAMS ONLY
Gum Elastic intubation stylet			2	2
Hemostatic Dressings *	1	1	1	1
IO Needles - Manual, Adult and Pediatric, Optional		Pediatric sizes only or EZ-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
Pitocin			20 units	20 units
Pulse Oximetry device	1			
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

**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**

<b>Exchanged Dressing Materials/Other Equipment/Supplies</b>	<b>BLS</b>	<b>LALS</b>	<b>ALS Non-Transport</b>	<b>ALS Transport</b>
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
Bedpan or fracture pan	1(BLS TRANSPORT UNITS ONLY			1
Urinal	1(BLS TRANSPORT UNITS ONLY			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

<b>Non-Exchange Dressing Materials/Other Equipment/Supplies</b>	<b>BLS</b>	<b>LALS</b>	<b>ALS Non-Transport</b>	<b>ALS Transport</b>
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
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

<b>Non-Exchange Dressing Materials/Other Equipment/Supplies</b>	<b>BLS</b>	<b>LALS</b>	<b>ALS Non-Transport</b>	<b>ALS Transport</b>
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 - CAL Chiefs or ICEMA approved	20	20	20	20



## EMS AIRCRAFT STANDARD DRUG & EQUIPMENT LIST

Each Aircraft shall be equipped with the following functional equipment and supplies. This list represents mandatory items with minimum quantities, to exclude 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.

MEDICATIONS/SOLUTIONS	AMOUNT
Adenosine (Adenocard) 6 mg	1
Adenosine (Adenocard) 12 mg	2
Albuterol Aerosolized Solution (Proventil) - unit dose 2.5 mg	3 doses
Aspirin, chewable - 81 mg tablet	1 bottle
Atropine 1 mg preload	2
Calcium Chloride 1 gm preload	1
Dextrose 10% in 250 ml Water (D10W) *	2
Diphenhydramine (Benadryl) 50 mg	1
Dopamine 400 mg	1
Epinephrine 1:1,000	2
Epinephrine 1:10,000	2
Glucagon 1 mg	1
Glucopaste	1 tube
Ipratropium Bromide Inhalation Solution (Atrovent) unit dose 0.5 mg	3
Lidocaine 100 mg	3
Lidocaine 1 gm or 1 bag pre-mixed 1 gm/250 cc D5W	1 gm
Lidocaine 2% Intravenous solution	1
Lidocaine 2% (Viscous)	1 dose
Magnesium Sulfate 10 gms	1
Naloxone (Narcan) 2 mg preload	2
Nitroglycerin - Spray 0.4 mg metered dose and/or tablets (tablets to be discarded 90 days after opening.)	1
Normal Saline for Injection (10 cc)	2
Normal Saline 250 ml	1
Normal Saline 500 ml and/or 1000 ml	2000 ml
Ondansetron (Zofran) 4 mg Oral Disintegrating Tablets (ODT)	4
Ondansetron (Zofran) 4 mg IM/ IV	4
Phenylephrine HCL - 0.5 mg per metered dose	1 bottle
Procainamide 1 gm	1
Sodium Bicarbonate 50 mEq preload	2
Verapamil 5 mg	3

<b>CONTROLLED SUBSTANCE MEDICATIONS-MUST BE DOUBLE LOCKED</b>	<b>AMOUNT</b>
Fentanyl	200-400 mcg
Midazolam	20-40 mg
<b>AIRWAY/SUCTION EQUIPMENT</b>	
Aircraft Oxygen source -10 L /min for 20 minutes	1
BAAM Device	1
C-PAP circuits - all manufacture's available sizes	1 each
End-tittle CO2 device - pediatric and adult (may be integrated into bag)	1 each
Endotracheal tubes, uncuffed - 2.5, 3.0, 3.5 with stylet	2 each
Endotracheal Tubes, uncuffed - 4.0 or 4.5, 5.0 or 5.5 with stylet	2 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
ET Tube holders - pediatric and adult	1 each
Flashlight/penlight	1
King LTS-D Adult: Size 3 (yellow) Size 4 (red) Size 5 (purple)	1 each
King Ped: 12-25 kg: Size 2 (green) 25-35 kg: Size 2.5 (orange)	1 each
Laryngoscope handle with batteries - or 2 disposable handles	1
Laryngeal blades - #0, #1, #2, #3, #4 curved and/or straight	1 each
Magill Forceps - Pediatric and Adult	1 each
Nasal Cannulas - infant, pediatric and adult	2 each
Naso/Orogastric tubes - 10fr or 12fr, 14fr, 16fr or 18fr	1 each
Naso/Orogastric feeding tubes - 5fr or 6fr, and 8fr	1 each
Nasopharyngeal Airways - infant, child, and adult	1 each
Needle Cricothyrotomy Device (Approved) - Pediatric and adult <i>or</i>	1 each
Needles for procedure 10, 12, 14 and/or 16 gauge	2 each
Non Re-Breather O <sub>2</sub> Mask - Pediatric and Adult, Infant Simple Mask	2 each
One way flutter valve with adapter or equivalent	1
Oropharyngeal Airways - infant, child, and adult	1 each
Portable Oxygen with regulator - 10 L /min for 20 minutes	1
Portable suction device (battery operated) <i>and/or</i> Wall mount suction device	1 each
Pulse Oximetry device	1
Small volume nebulizer with universal cuff adaptor	1
Stethoscope	1
Suction catheters - 6fr, 8fr or 10fr, 12fr or 14fr	1 each
Ventilation Bags - Infant 250 ml, Pediatric 500 ml and Adult 1 L	1 each
Water soluble lubricating jelly	1
Ridged tonsil tip suction	1

<b>IV/NEEDLES/SYRINGES/MONITORING EQUIPMENT</b>	<b>AMOUNT</b>
12-Lead ECG Monitor and Defibrillator with TCP and printout	1
800 MHz Radio	1
Blood pressure cuff - large adult or thigh cuff, adult, child and infant	1 set
Capnography monitor and supplies, may be integrated in the cardiac monitor	1
Conductive medium <i>or</i> Adult and Pediatric Pacer/Defibrillation pads	2 each
ECG - Pediatric and Adult	20 patches
EZ IO Needles and Driver 15 mm, 25 mm, and 45 mm	2 each 1 each
3-way stopcock with extension tubing	2
IO Needles - Manual, Adult and Pediatric, <u>Optional</u>	1 each
IV Catheters - sizes 14, 16, 18, 20, 22, 24	2 each
Glucose monitoring device	1
Macro drip Administration Set	3
Micro drip Administration Set (60 drops/ml)	1
Mucosal Atomizer Device (MAD) for nasal administration of medication	4
Needle disposal system (OSHA approved)	1
Pressure infusion bag	1
Safety Needles - 20 or 21 gauge and 23 or 25 gauge	2 each
Saline Lock	2
Syringes w/wo safety needles - 1 ml, 3 ml, 10 ml, 20 ml	2 each
Syringe - 60 ml catheter tip	2
Thermometer - Mercury free with covers	1

<b>DRESSING MATERIALS/OTHER EQUIPMENT SUPPLIES</b>	<b>AMOUNT</b>
Adhesive tape - 1 inch	2
Air occlusive dressing	1
Aircraft stretcher or litter system with approved FAA straps that allows for Axial Spinal Immobilization	1
Ankle and wrist restraints, soft ties acceptable	1
Antiseptic swabs/wipes	
Bandage shears	1
Blanket or sheet	2
Blood Borne Pathogen Protective Equipment - (nonporous gloves, goggles face masks and gowns meeting OSHA Standards)	2
Cervical Collars - Rigid Pediatric & Adult all sizes <i>or</i>	1 each
Cervical Collars - Adjustable Adult and Pediatric	1 each
Emesis basin or disposable bags and covered waste container	1
Head immobilization device	1
OB Kit	1
Pneumatic or rigid splints capable of splinting all extremities	4
Providence/Iodine swabs/wipes or antiseptic equivalent	
Roller bandages - 4 inch	3
Sterile bandage compress or equivalent	6
Sterile gauze pads - 4x4 inch	4

<b>DRESSING MATERIALS/OTHER EQUIPMENT SUPPLIES</b>	<b>AMOUNT</b>
Sterile Sheet for Burns	2
Traction splint	1
Universal Dressing 10x30 inches	2

<b>OPTIONAL EQUIPMENT/MEDICATIONS</b>	<b>Amount</b>
Ammonia Inhalants	2
Automatic ventilator (Approved)	1
Backboard padding	1
BLS AED/defib pads	1
Chemistry profile tubes	3
CyanoKit (Specialty Program Only)	SPECIALTY PROGRAMS ONLY
D5W in bag	1
Endotracheal tubes, cuffed - 2.5, 3.0, 3.5 with stylet	SPECIALTY PROGRAMS ONLY
Endotracheal Tubes, cuffed - 4.0 or 4.5, 5.0 or 5.5 with stylet	SPECIALTY PROGRAMS ONLY
Hemostatic Dressing *	1
IV infusion pump	1
IV warming device	1
Manual powered suction device	1
Medical Tourniquet	1
Needle Thoracostomy Kit (prepackaged)	2
Pediatric immobilization board	1
Pitocin	2
Translaryngeal Jet Ventilation Device	1
Vacutainer	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

**Note:**

- The above products are “packaged” in various forms (i.e., Z-fold, rolled gauze, trauma pads, and 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.



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## CONTROLLED SUBSTANCE POLICY

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### I. PURPOSE

To establish minimum requirements and accountability for ICEMA approved ALS providers to procure, stock, transport, and use controlled substances in compliance with the Federal Controlled Substances Act.

### II. POLICY

All ICEMA approved ALS providers shall have a formal agreement with a qualified Medical Director or a drug authorizing physician who agrees to purchase controlled substances using the appropriate DEA registration number and forms. This physician will retain ownership, accountability and responsibility for these controlled substances at all times.

**All ALS providers shall develop policies compliant with The Controlled Substances Act Title 21, United States Code (USC) and California Code of Regulations Title 22, Division 9, Chapter 4, Article 7, Section 100168.** These policies must ensure that security mechanisms and procedures are established for controlled substances, including, but not limited to:

- Controlled substance ordering and order tracking
- Controlled substance receipt and accountability
- Controlled substance master supply storage, security and documentation
- Controlled substance labeling and tracking
- Vehicle storage and security
- Usage procedures and documentation
- Reverse distribution
- Disposal
- Re-stocking

Additionally, the policies must ensure that mechanisms for investigation and mitigation of suspected tampering or diversion are established, including, but not limited to:

- Controlled substance testing
- Discrepancy reporting

- Tampering, theft and diversion prevention and detection
- Usage audits

The ALS provider's medical director or drug authorizing physician must be a physician licensed to practice medicine in the State of California and must apply and obtain a valid DEA registration number for the ALS provider they propose to purchase controlled substances for. If a physician has agreements with multiple ALS providers, separate DEA registration numbers are required for each individual EMS provider. Physicians should not use their personal DEA registration number that they use for their clinical practice.

### **III. PROCEDURE**

All controlled substances shall:

1. Be purchased and stored in tamper evident containers.
2. Be stored in a secure and accountable manner.
3. Be kept under a "double lock" system at all times.
4. Be reconciled at a minimum every 24 hours or at any change of shift or change in personnel.

### **IV. REQUIRED DOCUMENTATION**

1. ALS providers must maintain a log of all purchased controlled substances for a period of no less than two (2) years.
2. All controlled substance usage will be documented on all patient care records (PCR) or electronic patient care reports (ePCR).
3. EMS Provider's medical director must determine the manner by which unused and expired controlled substances are discarded. The practice must be in compliance with all applicable local, state, and federal regulations and the process should be clearly stated in the EMS provider's controlled substances policy.
4. In the event of breakage of a narcotic container an incident report will be completed and the damage reported to the appropriate supervisor.
5. Discrepancies in the narcotic count will be reported immediately to the appropriate supervisor and a written report must be submitted.

# SAMPLE DAILY LOG

Agency: \_\_\_\_\_

Month: \_\_\_\_\_ Year: \_\_\_\_\_

Double Lock

Shift Change Medic

Date

In Place

Midazolam 5mg

On

	DATE	DOUBLE LOCK IN PLACE?	MIDAZOLAM 5MG	FENTANYL	DRUG ADMINISTERED - AMOUNT GIVEN/WASTED O1A # PATIENT NAME DATE/TIME MEDIC NAME	DUTY MEDIC	CAPTAIN OR SUPERVISOR
1		Yes / No	Amount _____	Amount_____		Can Not Be Same Signature	Can Not Be Same Signature
2		Yes / No	Amount _____	Amount_____		Can Not Be Same Signature	Can Not Be Same Signature
3		Yes / No	Amount _____	Amount_____		Can Not Be Same Signature	Can Not Be Same Signature
4		Yes / No	Amount _____	Amount_____		Can Not Be Same Signature	Can Not Be Same Signature
5		Yes / No	Amount _____	Amount_____		Can Not Be Same Signature	Can Not Be Same Signature
6		Yes / No	Amount _____	Amount_____		Can Not Be Same Signature	Can Not Be Same Signature
7		Yes / No	Amount _____	Amount_____		Can Not Be Same Signature	Can Not Be Same Signature
8		Yes / No	Amount _____	Amount_____		Can Not Be Same Signature	Can Not Be Same Signature





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## MEDICATION - STANDARD ORDERS

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### **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, 11050*

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

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

*Reference #s 6090, 7010, 7020, 11010, 11100, 14030*

### **Albuterol Metered-Dose Inhaler (MDI) (Proventil) - Specialty Programs Only Adult (LALS, ALS)**

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

*Reference #s 6090, 6110, Sheriff's Search and Rescue*

### **Albuterol - Pediatric (LALS, ALS)**

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

*Reference #s 7010, 7020, 14010, 14030, and 14070*

### **Aspirin, chewable (LALS, ALS)**

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

*Reference #s 2020, 6090, 6110, 7010, 7020, 11060*

**Atropine (ALS)**

Atropine, 0.5 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 6090, 6110, 7010, 7020, 11040, 12020, 13010*

**Calcium Chloride (ALS)***Calcium Channel Blocker Poisonings:*

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

*Reference #s 2020, 7010, 7020, 13010*

**Dextrose - Adult (LALS, ALS)**

Dextrose 10%/250 ml (D10W 25 gm) IV/IO Bolus

*Reference #s 2020, 6090, 6110, 7010, 7020, 8010, 11050, 11070, 11080, 13020, 13030*

**Dextrose - Pediatric (LALS, ALS)**

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

Dextrose 10%/250 ml (D10W 25 gm) 0.5 gm/kg (5 ml/kg) IV/IO

*Reference #s 2020, 7010, 7020, 13020, 13030, 14040, 14050, 14060*

**Diphenhydramine - Adult (ALS)**

Diphenhydramine, 25 mg IV/IO

Diphenhydramine, 50 mg IM

*Reference #s 6090, 6110, 7010, 7020, 11010, 13010*

**Diphenhydramine - Pediatric (ALS)**

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, 14030*

**Dopamine - Adult (ALS)**

Dopamine, infusion of 400 mg in 250 ml of NS IV/IO, titrated between 5 - 20 mcg/kg/min to maintain signs of adequate tissue perfusion.

*Reference #s 7010, 7020, 8010, 8040, 10140, 11070, 11090, 14080*

**Dopamine - Pediatric (ALS)**

*Post resuscitation continued signs of inadequate tissue perfusion:*

9 to 14 years                      Dopamine, 400 mg in 250 ml of NS to infuse at 5 - 20 mcg/kg/min IV/IO titrated to maintain signs of adequate tissue perfusion.

*Reference #s 7010, 7020, 14040*

**Epinephrine (1:1000) - Adult (LALS, ALS)**

*Severe Bronchospasm, Asthma Attack, Pending Respiratory Failure, Anaphylactic Shock/Severe Allergic Reactions:*

Epinephrine, 0.3 mg IM

**Epinephrine (1:10,000) - Adult (ALS)**

*For Persistent severe anaphylactic shock:*

Epinephrine (1:10,000), 0.1 mg slow IVP/IO. May repeat every five (5) minutes as needed to total dosage of 0.5 mg.

*Cardiac Arrest, Asystole, PEA:*

Epinephrine, 1 mg IV/IO

*Reference #s 2020, 6090, 6110, 7010, 7020, 11010, 11070, 12020*

**Epinephrine (1:1000) - Pediatric (LALS, ALS)**

*Severe Bronchospasm, Asthma Attack, Pending Respiratory Failure, Anaphylactic Shock/Severe Allergic Reactions:*

Epinephrine, 0.01 mg/kg IM not to exceed adult dosage of 0.3 mg.

*Reference #s 2020, 6090, 7010, 7020, 11010, 14010, 14030*

**Epinephrine (1:10,000) - Pediatric (ALS)**

*Anaphylactic Shock (no palpable radial pulse and depressed level of consciousness):*

Epinephrine (1:10,000), 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 (1:10,000), 0.01 mg/kg IV/IO (do not exceed adult dosage)  
9 to 14 years      Epinephrine (1:10,000), 1.0 mg IV/IO

*Newborn Care:*

Epinephrine (1: 10,000), 0.01mg/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 (1:10,000), 0.005 mg/kg IV/IO every ten (10) minutes for persistent hypotension as a base hospital order or in radio communication failure.

*Post resuscitation continued signs of inadequate tissue perfusion:*

1 day to 8 years      Epinephrine (1:10,000), 0.5 mcg/kg/min IV/IO drip

*Reference #s 2020, 7010, 7020, 14030, 14040, 14090*

**Fentanyl - Adult (ALS)**

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 ten (10) minutes titrated to pain, not to exceed 200 mcg.

*Isolated Extremity Trauma, Burns:*

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 ten (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 ten (10) minutes titrated to pain, not to exceed 200 mcg.

*Reference #s 2020, 6090, 6110, 7010, 7020, 7030, 11060, 11100, 13030, 15010*

**Fentanyl - Pediatric (ALS)**

Fentanyl, 0.5 mcg/kg slow IV/IO over one (1) minute. May repeat in five minutes titrated to pain, not to exceed 100 mcg.

Fentanyl, 1 mcg/kg IM/IN, may repeat every ten (10) minutes titrated to pain not to exceed 200 mcg.

*Reference #s 2020, 6110, 7010, 7020, 7030, 11060, 13030, 14070, 15020*

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

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

*Reference #s 7010, 7020, 11080, 11090, 11110, 13020*

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

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

*Reference #s 7010, 7020, 14050, 14060*

**Glucagon - Adult (LALS, ALS)**

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

***Betablocker Poisoning:***

Glucagon, 1 mg IV/IO (base hospital order only)

*Reference #s 6090, 6110, 7010, 7020, 11080, 13010, 13030*

**Glucagon - Pediatric (LALS, ALS)**

Glucagon, 0.025 mg/kg IM/IN, if unable to start an IV. May be repeated one (1) time after twenty (20) minutes for a combined maximum dose of 1 mg.

*Reference #s 7010, 7020, 13030, 14050, 14060*

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

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

*Reference #s 7010, 7020, 11010, 11100*

**Ipratropium Bromide Metered-Dose Inhaler (MDI) (Atrovent) - Specialty Programs Only Adult (ALS) use with Albuterol**

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

*Reference #s 6090, 6110, 7010, 7020*

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

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

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

*Reference #s 7010, 7020, 14010, 14030, 14070*

**Lidocaine - Adult (ALS)**

*Intubation, King Airway, NG/OG, for suspected increased intracranial pressure (ICP):*

Lidocaine, 1.5 mg/kg IV/IO

*VT/VF:*

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

May administer an additional 0.75 mg/kg IV/IO, repeat once in five (5) to ten (10) minutes for refractory VF.

*VT/VF Infusion:*

Lidocaine, 2 mg/min IV/IO drip

*V-Tach, Wide Complex Tachycardia – with Pulses:*

Lidocaine, 1.5 mg/kg slow IV/IO

May administer an additional 0.75 mg/kg IV/IO, repeat once in five (5) to ten (10) minutes for refractory VF

Initiate infusion of Lidocaine 2 mg/min IV/IO drip.

*Reference #s 2020, 6090, 7010, 7020, 8010, 8040, 10030, 10080, 11050, 11070, 15010*

**Lidocaine - Pediatric (ALS)**

*Intubation, King Airway, NG/OG, for suspected increased intracranial pressure (ICP):*

Lidocaine, 1.5 mg/kg IV/IO

*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 up to total of 3.0 mg/kg.

*Reference #s 2020, 7010, 7020, 14040*

**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 2020, 7010, 7020, 10140*

**Magnesium Sulfate (ALS)***Polymorphic Ventricular Tachycardia:*

Magnesium Sulfate, 2 gm in 100 ml of NS IV/IO 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 diluted with 20 ml NS, IV/IO slow IV push over three (3) to four (4) minutes.

Magnesium Sulfate, 2 gm in 100 cc of NS at 30 cc per hour IV/IO to prevent continued seizures.

*Reference #s 2020, 7010, 7020, 8010, 14080*

**Midazolam - Adult (ALS)***Seizure:*

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

Midazolam, 5 mg IM. May repeat in ten (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 IM/IN/IV/IO may be administered for continued seizure activity. Contact base hospital for additional orders and to discuss further treatment options.

*Pacing, synchronized cardioversion:*

Midazolam, 2 mg slow IV/IO push or IN

*Reference #s 6090, 6110, 7010, 7020, 10110, 10120, 11080, 13020, 14080*

**Midazolam - 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 ten (10) minutes for continued seizure. IN dosage of Midazolam is doubled due to decreased surface area of nasal mucosa resulting in decreased absorption of medication.

Assess patient for medication related reduced respiratory rate or hypotension.

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

*Reference #s 7010, 7020, 14060*

**Naloxone (Narcan) - Adult (LALS, ALS)***Resolution of respiratory depression related to suspected narcotic 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.

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

*Reference #s 6110, 7010, 7020, 11070, 11080*

**Naloxone (Narcan) - Pediatric (LALS, ALS)***Resolution of respiratory depression related to suspected narcotic overdose:*

1 day to 8 years	Naloxone, 0.1 mg/kg IV/IO
9 to 14 years	Naloxone, 0.5 mg IV/IO

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

*Reference #s 7010, 7020, 14040, 14050*

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

*Reference #s 6090, 6110, 7010, 7020, 11010, 11060*

**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 and may repeat twice, at ten (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 6110, 7010, 7020, 9120, 10100, 15010, 15020*

**Phenylephrine HCL (ALS)**

Phenylephrine, 0.5 mg metered dose may be repeated once prior to additional attempt

*Reference #s 7010, 7020, 10050*

**Procainamide (ALS)**

*SVT, V-Tach or Wide Complex Tachycardias:*

Procainamide, 20 mg/min IV/IO; may repeat until arrhythmia suppressed, symptomatic hypotension, QRS widens by more than 50% or maximum dose of 17 mg/kg administered. If arrhythmia suppressed, begin infusion of 2 mg/min.

*Reference #s 7010, 7020, 8010, 8040, 11050*

**Sodium Bicarbonate (ALS)**

*Tricyclic Poisoning:*

Sodium Bicarbonate, 1 mEq/kg IV/IO

*Reference #s 2020, 7010, 7020, 13010*

**Verapamil (ALS)**

*SVT if adenosine is ineffective:*

Verapamil, 5 mg slow IV/IO over three (3) minutes, may repeat every fifteen (15) minutes to a total dose of 20 mg.

*Reference #s 7010, 7020, 11050*



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## SUSPECTED ACUTE MYOCARDIAL INFARCTION (AMI)

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### I. FIELD ASSESSMENT/TREATMENT INDICATORS

- Chest pain (typical or atypical).
- Syncopal episode.
- History of previous AMI, Angina, heart disease, or other associated risk factors.

### II. BLS INTERVENTIONS

- Recognition of signs/symptoms of suspected AMI.
- Reduce anxiety, allow patient to assume position of comfort.
- Oxygen as clinically indicated.
- Obtain O<sub>2</sub> saturation.
- May assist patient with self-administration of Nitroglycerin and/or Aspirin.

### III. LIMITED ALS (LALS) INTERVENTIONS

- Aspirin per ICEMA Reference #7040 - Medication - Standard Orders.
- Consider early vascular access.
- For patients with chest pain, signs of inadequate tissue perfusion and clear breath sounds, administer 300 ml NS bolus, may repeat.
- Nitroglycerin per ICEMA Reference #7040 - Medication - Standard Orders.
- Consider establishing a saline lock enroute on same side as initial IV.
- Complete thrombolytic checklist, if time permits.
- Contact base hospital.

#### IV. ALS INTERVENTIONS

- Aspirin per ICEMA Reference #7040 - Medication - Standard Orders.
- Consider early vascular access.
- For patients with chest pain, signs of inadequate tissue perfusion and clear breath sounds, administer 300 ml NS bolus, may repeat.
- 12-Lead Technology:
  - Obtain 12-lead ECG. Do not disconnect 12-lead cables until necessary for transport.
  - If signs of inadequate tissue perfusion or if inferior wall infarct is suspected, obtain a right-sided 12-lead (V4R).
  - If right ventricular infarct (RVI) is suspected with signs of inadequate tissue perfusion, consider 300 ml NS bolus, may repeat. Early consultation with base hospital or receiving hospital in rural areas is recommended. (Nitrates are contraindicated in the presence of RVI or hypotension.)
  - With documented ST segment elevation in two (2) or more contiguous leads, contact STEMI base hospital for destination decision while preparing patient for expeditious transport, refer to ICEMA Reference #6070 - Cardiovascular “STEMI” Receiving Centers. In Inyo and Mono Counties, the assigned base hospital should be contacted for STEMI consultation.
  - Repeat 12-lead at regular intervals, but do not delay transport of patient. If patient is placed on a different cardiac monitor for transport, transporting provider should obtain an initial 12-lead on their cardiac monitor and leave 12-lead cables in place throughout transport.
  - EMS field personnel shall ensure that a copy of the 12-lead ECG is scanned or attached as a permanent part of the patient’s ePCR or OIA and submit to ICEMA if patient is going to a SRC as a suspected STEMI.
- Nitroglycerin per ICEMA Reference #7040 - Medication - Standard Orders. Utilize Fentanyl for pain control when Nitroglycerin is contraindicated.

- Fentanyl per ICEMA Reference #7040 - Medication - Standard Orders. Consider concurrent administration of Nitroglycerin with Fentanyl if there is no pain relief from the initial Nitroglycerin administration. Contact base hospital for further Fentanyl orders.
- Consider establishing a saline lock as a secondary IV site.
- Make early STEMI notification to the STEMI Receiving Center.
- In Radio Communication Failure (RCF), may administer up to an additional 100 mcg of Fentanyl in 50 mcg increments with signs of adequate tissue perfusion.

**V. REFERENCES**

<u>Number</u>	<u>Name</u>
6070	Cardiovascular “STEMI” Receiving Centers
7040	Medication - Standard Orders



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## BURNS - ADULT (15 years of age and older)

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Burn patient requires effective communication and rapid transportation to the closest receiving hospital.

In Inyo and Mono Counties, the assigned base hospital should be contacted for determination of appropriate destination.

### I. FIELD ASSESSMENT/TREATMENT INDICATORS

Refer to ICEMA Reference #8130 - Destination Policy.

### II. BLS INTERVENTIONS

- Break contact with causative agent (stop the burning process).
- Remove clothing and jewelry quickly, if indicated.
- Keep patient warm.
- Estimate % TBSA burned and depth using the “Rule of Nines”.
  - An individual’s palm represents 1% of TBSA and can be used to estimate scattered, irregular burns.
- Transport to ALS intercept or to the closest receiving hospital.

#### A. Manage Special Considerations

- **Thermal Burns:** Stop the burning process. Do not break blisters. Cover the affected body surface with dry, sterile dressing or sheet.
- **Chemical Burns:** Brush off dry powder, if present. Remove any contaminated or wet clothing. Irrigate with copious amounts of saline or water.
- **Tar Burns:** Cool with water, do not remove tar.
- **Electrical Burns:** Remove from electrical source (without endangering self) with a nonconductive material. Cover the affected body surface with dry, sterile dressing or sheet.

- **Eye Involvement:** Continuous flushing with NS during transport. Allow patient to remove contact lenses if possible.
- **Determination of Death on Scene:** Refer to ICEMA Reference #12010 - Determination of Death On Scene.

### III. LIMITED ALS (LALS) INTERVENTIONS

- Advanced airway as indicated.
- King Airway contraindicated in airway burns.
- Airway Stabilization:

Burn patients with respiratory compromise or potential for such, will be transported to the closest most appropriate receiving hospital for airway stabilization.

- IV access (warm IV fluids when available).
  - *Unstable:* BP <90mmHG and/or signs of inadequate tissue perfusion, start 2<sup>nd</sup> IV access.  
*IV NS 250 ml boluses, may repeat to a maximum of 1000 ml.*
  - *Stable:* BP >90mmHG and/or signs of adequate tissue perfusion.  
*IV NS 500 ml/hour.*
  - Transport to appropriate facility.
    - *Minor Burn Classification:* Transport to the closest most appropriate receiving hospital.
    - *Moderate Burn Classification:* Transport to the closest most appropriate receiving hospital.
    - *Major Burn Classification:* Transport to the closest most appropriate Burn Center (San Bernardino County contact ARMC).
    - *Critical Trauma Patient (CTP) with Associated Burns:* Transport to the most appropriate Trauma Center.
- Burn patients with associated trauma, should be transported to the closest Trauma Center. Trauma base hospital contacted shall be made.

A. **Manage Special Considerations**

- **Electrical Burns:** Place AED on patient.
  - Electrical injuries that result in cardiac arrest shall be treated as medical arrests.
- **Respiratory Distress:** Use BVM as needed and transport to the nearest facility for airway control. Contact receiving hospital ASAP. Nebulized Albuterol with Atrovent per ICEMA Reference #7040 - Medication - Standard Orders.
- **Deteriorating Vital Signs:** Transport to the closest most appropriate receiving hospital. Contact base hospital.
- **Pulseness and Apneic:** Transport to the closest most appropriate receiving hospital and treat according to ICEMA policies. Contact base hospital.
- **Determination of Death on Scene:** Refer to ICEMA Reference #12010 - Determination of Death on Scene.
- **Precautions and Comments:**
  - High flow oxygen is essential with known or potential respiratory injury. Beware of possible smoke inhalation.
  - Contact with appropriate advisory agency may be necessary for hazardous materials, before decontamination or patient contact.
  - Do not apply ice or ice water directly to skin surfaces, as additional injury will result.
- **Base Hospital Orders:** May order additional fluid boluses.

IV. **ALS INTERVENTIONS**

- Advanced airway (as indicated).
- Airway Stabilization:

Burn patients with respiratory compromise or potential for such, will be transported to the closest most appropriate receiving hospital for airway stabilization.

- Monitor ECG.
- IV/IO Access (Warm IV fluids when available).
  - *Unstable:* BP <90mmHG and/or signs of inadequate tissue perfusion, start 2<sup>nd</sup> IV access.  
  
IV/IO NS 250 ml boluses, may repeat to a maximum of 1000 ml.
  - *Stable:* BP >90mmHG and/or signs of adequate tissue perfusion.  
  
IV/IO NS 500 ml/hour.
- Treat pain as indicated.  
  
**Pain Relief:** Fentanyl per ICEMA Reference #7040 - Medication - Standard Orders. Document BP and pain scale every five (5) minutes while medicating for pain and reassess the patient.
- Transport to appropriate facility:
  - *CTP with associated burns,* transport to the closest Trauma Center.
  - Burn patients with associated trauma, should be transported to the closest Trauma Center. Trauma base hospital contacted shall be made.
- Insert nasogastric/orogastric tube as indicated.
- Refer to Section V - Burn Classifications below.

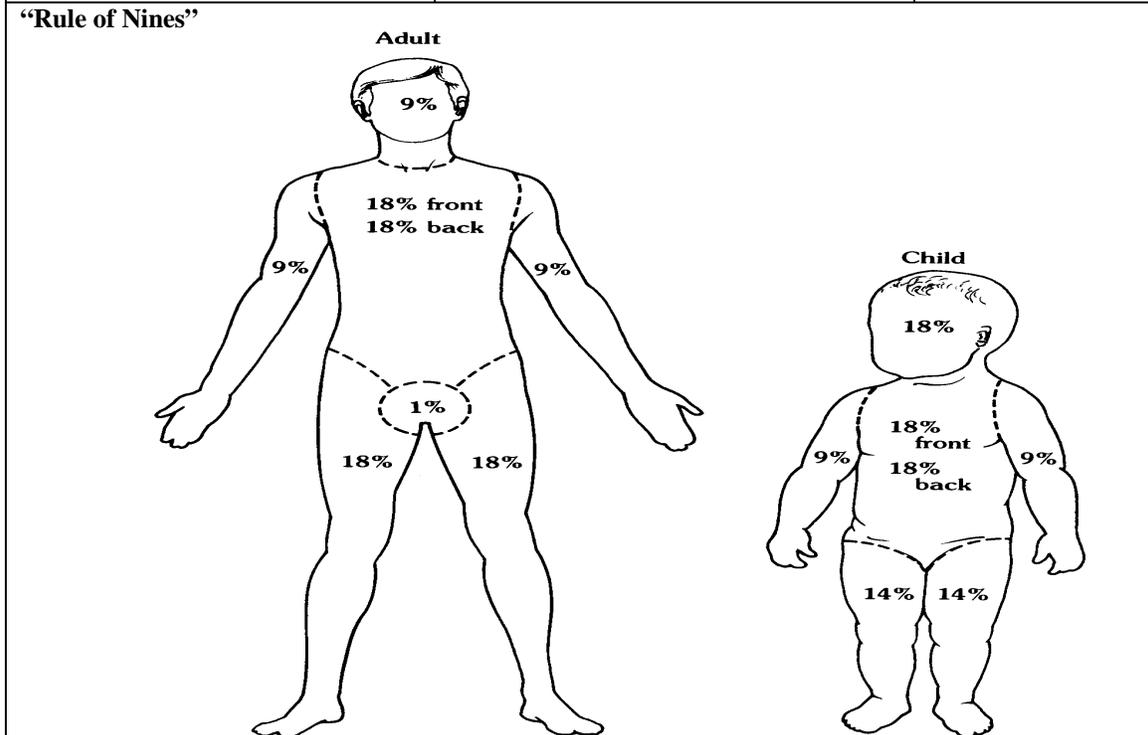
**A. Manage Special Considerations**

- **Electrical Burns:** Monitor for dysrhythmias, treat according to ICEMA protocols.
  - Electrical injuries that result in cardiac arrest shall be treated as medical arrests.
- **Respiratory Distress:** Intubate patient if facial/oral swelling are present or if respiratory depression or distress develops due to inhalation injury.
  - Albuterol with Atrovent per ICEMA Reference #7040 - Medication - Standard Orders.
  - Administer humidified oxygen, if available.

- Apply capnography.
- Awake and breathing patients with potential for facial/inhalation burns are not candidates for nasal tracheal intubation. CPAP may be considered, if indicated, after consultation with base hospital.
- **Deteriorating Vital Signs:** Transport to the closest receiving hospital. Contact base hospital.
- **Pulseness and Apneic:** Transport to the closest receiving hospital and treat according to ICEMA policies. Contact base hospital.
- **Determination of Death on Scene:** Refer to ICEMA Reference #12010 - Determination of Death on Scene.
- **Precautions and Comments:**
  - Contact with appropriate advisory agency may be necessary for hazardous materials, before decontamination or patient contact.
  - Do not apply ice or ice water directly to skin surfaces, as additional injury will result.
- **Base Hospital Orders:** May order additional medications, fluid boluses and CPAP.

**V. BURN CLASSIFICATIONS**

ADULT BURN CLASSIFICATION CHART	DESTINATION	
<p><b><u>MINOR</u> - ADULT</b></p> <ul style="list-style-type: none"> <li>• &lt; 10% TBSA</li> <li>• &lt; 2% Full Thickness</li> </ul>	<p><b>CLOSEST MOST APPROPRIATE RECEIVING HOSPITAL</b></p>	
<p><b><u>MODERATE</u> - ADULT</b></p> <ul style="list-style-type: none"> <li>• 10 - 20% TBSA</li> <li>• 2 - 5% Full Thickness</li> <li>• High Voltage Injury</li> <li>• Suspected Inhalation Injury</li> <li>• Circumferential Burn</li> <li>• Medical problem predisposing to infection (e.g., diabetes mellitus, sickle cell disease)</li> </ul>	<p><b>CLOSEST MOST APPROPRIATE RECEIVING HOSPITAL</b></p>	
<p><b><u>MAJOR</u> - ADULT</b></p> <ul style="list-style-type: none"> <li>• &gt;20% TBSA burn in adults</li> <li>• &gt; 5% Full Thickness</li> <li>• High Voltage Burn</li> <li>• Known Inhalation Injury</li> <li>• Any significant burn to face, eyes, ears, genitalia, or joints</li> </ul>	<p><b>CLOSEST MOST APPROPRIATE BURN CENTER</b></p> <p>In San Bernardino County, contact: Arrowhead Regional Medical Center (ARMC)</p>	



**VI. REFERENCES**

<u>Number</u>	<u>Name</u>
7040	Medication - Standard Orders
9010	General Patient Care Guidelines
10190	ICEMA Approved Skills
11070	Adult Cardiac Arrest
12010	Determination of Death on Scene
15030	Trauma Triage Criteria and Destination Policy



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## COLD RELATED EMERGENCIES

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### I. FIELD ASSESSMENT/TREATMENT INDICATORS

#### MILD HYPOTHERMIA

- Decreased core temperature.
- Cold, pale extremities.
- Shivering, reduction in fine motor skills.
- Loss of judgment and/or altered level of consciousness or simple problem solving skills.

#### SEVERE HYPOTHERMIA

- Severe cold exposure or any prolonged exposure to ambient temperatures below 36 degrees with the following indications:
  - Altered LOC with associated behavior changes.
  - Unconscious.
  - Lethargic.
- Shivering is generally absent.
- Blood pressure and heart sounds may be unobtainable.

#### SUSPECTED FROSTBITE

- Areas of skin that is cold, white, and hard to touch.
- Capillary refill greater than two (2) seconds.
- Pain and/or numbness to affected extremity.

### II. BLS INTERVENTIONS

- Remove from cold/wet environment; remove wet clothing and dry patient.
- Begin passive warming.

- Insulate and apply wrapped heat packs, if available, to groin, axilla and neck. This process should be continuous.
- Maintain appropriate airway with oxygen as clinically indicated (warm, humidified if possible).
- Assess carotid pulse for a minimum of one (1) to two (2) minutes. If no pulse palpable, place patient on AED. If no shock advised, begin CPR.
- Insulate to prevent further heat loss.
- Elevate extremity if frostbite is suspected.
- Do not massage affected extremity.
- Wrap affected body part in dry sterile gauze to prevent further exposure and handle with extreme care.

### III. LIMITED ALS INTERVENTIONS

- Advanced airway as clinically indicated.
- Obtain vascular access.
- Obtain blood glucose level, if indicated administer:
  - ADULT/PEDIATRIC
    - Dextrose per ICEMA Reference #7040 - Medication - Standard Orders.
    - May repeat blood glucose level. Repeat Dextrose per ICEMA Reference #7040 - Medication - Standard Orders.
    - Glucagon per ICEMA Reference #7040 - Medication - Standard Orders if unable to establish IV.
- Obtain vascular access and administer fluid bolus.
  - Nine (9) years and older: 300 ml warmed NS, may repeat.
  - Birth to eight (8) years: 20 ml/kg warmed NS, may repeat.
- Contact base hospital.

### IV. ALS INTERVENTIONS

- Obtain vascular access.

- Cardiac monitor.
- If clinically indicated, obtain blood glucose. If hypoglycemic administer:
  - ADULT/PEDIATRIC
    - Dextrose per ICEMA Reference #7040 - Medication - Standard Orders.
    - Glucagon per ICEMA Reference #7040 - Medication - Standard Orders, if unable to establish IV.
- For complaints of pain in affected body part:
  - ADULT/PEDIATRIC
    - Fentanyl per ICEMA Reference #7040 - Medication - Standard Orders.
- In Radio Communication Failure, may repeat above dosage of Fentanyl.
- Advanced airway as clinically indicated.
- Obtain vascular access and administer fluid bolus.
  - Nine (9) years and older: 500 ml warmed NS, may repeat.
  - Birth to eight (8) years: 20 ml/kg warmed NS, may repeat.
- Obtain rhythm strip for documentation.
- For documented VF, Pulseless V-Tach:
  - Defibrillate one (1) time at manufacturer recommended dose. Do not defibrillate again until patient has begun to warm.
- For documented asystole:
  - Begin CPR.
  - May give additional fluid bolus.
- Contact base hospital.

## V. REFERENCE

<u>Number</u>	<u>Name</u>
7040	Medication - Standard Orders



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## BURNS - PEDIATRIC (Less Than 15 Years of Age)

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Any burn patient requires effective communication and rapid transportation to the closest receiving hospital.

In Inyo and Mono Counties, the assigned base hospital should be contacted for determination of appropriate destination.

### I. FIELD ASSESSMENT/TREATMENT INDICATORS

Refer to ICEMA Reference #8130 - Destination Policy.

### II. BLS INTERVENTIONS

- Break contact with causative agent (stop the burning process).
- Remove clothing and jewelry quickly, if indicated.
- Keep patient warm.
- Estimate percentage of total body surface area (TBSA) burned and depth using the "Rule of Nines". An individual's palm represents 1% of TBSA and can be used to estimate scattered, irregular burns.
- Transport to ALS intercept or to the closest receiving hospital.

#### A. Manage Special Considerations

- **Thermal Burns:** Stop the burning process. Do not break blisters. Cover the affected body surface with dry, sterile dressing or sheet.
- **Chemical Burns:** Brush off dry powder, if present. Remove any contaminated or wet clothing. Irrigate with copious amounts of saline or water.
- **Tar Burns:** Cool with water, do not remove tar.
- **Electrical Burns:** Remove from electrical source (without endangering self) with a nonconductive material. Cover the affected body surface with dry, sterile dressing or sheet.

- **Eye Involvement:** Continuous flushing with NS during transport. Allow patient to remove contact lenses if possible.
- **Determination of Death on Scene:** Refer to ICEMA Reference #12010 - Determination of Death on Scene.

### III. LIMITED ALS (LALS) INTERVENTIONS

- Airway Stabilization (as indicated). Burn patients with respiratory compromise or potential for such, will be transported to the closest receiving hospital for airway stabilization.
- IV/IO Access (warm IV fluids when available).
  - *Unstable:* Vital signs (age appropriate) and/or signs of inadequate tissue perfusion consider starting a second IV or saline lock. Administer 20 ml/kg NS bolus IV/IO, may repeat one (1) time.
  - *Stable:* Vital signs (age appropriate) and/or signs of adequate tissue perfusion.
  - < 5 years of age: IV NS 150 ml/hour
  - > 5 years of age - < 15 years of age: IV NS 250 ml/hour
- Transport to appropriate facility:
  - Critical trauma patients with associated burns or burn patients sustaining critical trauma, should be transported to the closest Trauma Center. Trauma base hospital contacted shall be made.
- Refer to Section V - Burn Classifications below.

#### A. Manage Special Considerations

- **Respiratory Distress:**
  - Albuterol per ICEMA Reference #7040 - Medication - Standard Orders.
  - Administer humidified oxygen, if available.
- **Deteriorating Vital Signs:** Transport to the closest receiving hospital. Contact base hospital.

- **Pulseness and Apneic:** Transport to the closest receiving hospital and treat according to ICEMA protocols. Contact base hospital.
- **Determination of Death on Scene:** Refer to ICEMA Reference #12010 - Determination of Death on Scene.
- **Precautions and Comments:**
  - Contact with appropriate advisory agency may be necessary for hazardous materials, before decontamination or patient contact.
  - Do not apply ice or ice water directly to skin surfaces as additional injury will result.
  - Do not apply cool dressings or allow environmental exposure, since hypothermia will result in a young child.

#### IV. ALS INTERVENTIONS

- Advanced airway (as indicated).
  - **Airway Stabilization:** Burn patients with respiratory compromise or potential for such, will be transported to the closest receiving hospital for airway stabilization.
- Monitor ECG.
- IV/IO Access (Warm IV fluids when available).
  - *Unstable:* Vital signs (age appropriate) and/or signs of inadequate tissue perfusion consider starting a second IV or saline lock. Administer 20 ml/kg NS bolus IV/IO, may repeat one (1) time.
  - *Stable:* Vital signs (age appropriate) and/or signs of adequate tissue perfusion.
  - < 5 years of age: IV NS 150 ml/hour
  - > 5 years of age - < 15 years of age: IV NS 250 ml/hour
- Treat pain as indicated.
  - Fentanyl per ICEMA Reference #7040 - Medication - Standard Orders.

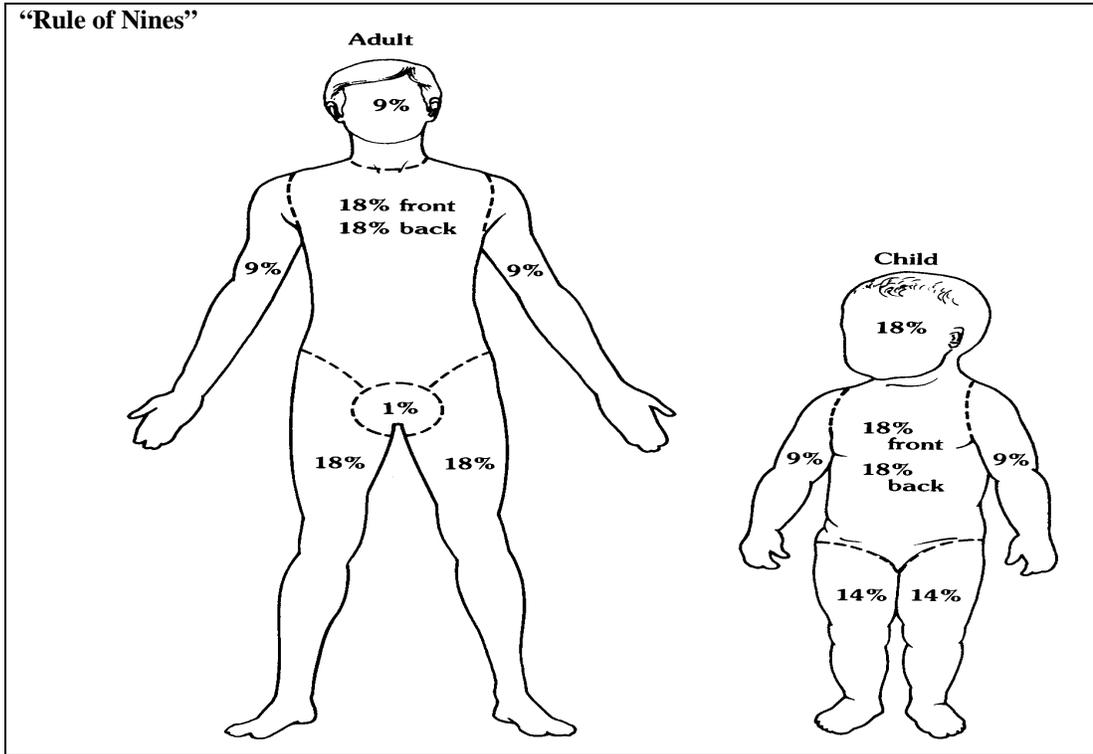
- Document vital signs every five (5) minutes while medicating for pain, and reassess the patient.
- Transport to appropriate facility:
  - Critical trauma patients with associated burns or burn patients sustaining critical trauma, should be transported to the closest Trauma Center. Trauma base hospital contacted shall be made.
  - Insert nasogastric/orogastric tube as indicated.
- Refer to Section V - Burn Classifications below.

**A. Manage Special Considerations**

- **Respiratory Distress:** Intubate patient if facial/oral swelling are present or if respiratory depression or distress develops due to inhalation injury.
  - Albuterol per ICEMA Reference #7040 - Medication - Standard Orders.
  - Administer humidified oxygen, if available.
- **Deteriorating Vital Signs:** Transport to the closest receiving hospital. Contact base hospital.
- **Pulseness and Apneic:** Transport to the closest receiving hospital and treat according to ICEMA protocols. Contact base hospital.
- **Determination of Death on Scene:** Refer to ICEMA Reference #12010 - Determination of Death on Scene.
- **Precautions and Comments:**
  - Contact with appropriate advisory agency may be necessary for hazardous materials, before decontamination or patient contact.
  - Do not apply ice or ice water directly to skin surfaces as additional injury will result.
  - Do not apply cool dressings or allow environmental exposure, since hypothermia will result in a young child.

V. BURN CLASSIFICATIONS

PEDIATRIC BURN CLASSIFICATION CHART	DESTINATION
<p><b>MINOR - PEDIATRIC</b></p> <ul style="list-style-type: none"> <li>• &lt; 5% TBSA</li> <li>• &lt; 2% Full Thickness</li> </ul>	<p><b>CLOSEST MOST APPROPRIATE RECEIVING HOSPITAL</b></p>
<p><b>MODERATE - PEDIATRIC</b></p> <ul style="list-style-type: none"> <li>• 5 - 10% TBSA</li> <li>• 2 - 5% Full Thickness</li> <li>• High Voltage Injury</li> <li>• Suspected Inhalation Injury</li> <li>• Circumferential Burn</li> <li>• Medical problem predisposing to infection (e.g., diabetes mellitus, sickle cell disease)</li> </ul>	<p><b>CLOSEST MOST APPROPRIATE RECEIVING HOSPITAL</b></p>
<p><b>MAJOR - PEDIATRIC</b></p> <ul style="list-style-type: none"> <li>• &gt; 10% TBSA</li> <li>• &gt; 5% Full Thickness</li> <li>• High Voltage Burn</li> <li>• Known Inhalation Injury</li> <li>• Any significant burn to face, eyes, ears, genitalia, or joints</li> </ul>	<p><b>CLOSEST MOST APPROPRIATE BURN CENTER</b></p> <p>In San Bernardino County, contact: Arrowhead Regional Medical Center (ARMC)</p>



**VI. REFERENCES**

<u>Number</u>	<u>Name</u>
7040	Medication - Standard Orders
8130	Destination Policy
12010	Determination of Death on Scene



## TRAUMA - ADULT (15 years of age and older)

Any critical trauma patient (CTP) requires effective communication and rapid transportation to the closest trauma center. If not contacted at scene, the receiving trauma center must be notified as soon as possible in order to activate the trauma team.

In Inyo and Mono Counties, the assigned base hospital should be contacted for determination of appropriate destination.

### I. FIELD ASSESSMENT/TREATMENT INDICATORS

Refer to ICEMA Reference #15030 - Trauma Triage Criteria and Destination Policy.

### II. BLS INTERVENTIONS

- Ensure thorough initial assessment.
- Ensure patent airway, protecting cervical spine.
- Oxygen and/or ventilate as needed, O<sub>2</sub> saturation (if BLS equipped).
- Keep patient warm.
- For a traumatic full arrest, an AED may be utilized, if indicated.
- Transport to ALS intercept or to the closest receiving hospital.

#### A. Manage Special Considerations

- **Axial Spinal Immobilization:** 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 axial immobilization 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 immobilization using long board.
- **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.
  - To control life-threatening bleeding of a severely injured extremity, consider application of tourniquet when direct pressure or pressure dressing fails.
- **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.
- **Pregnancy:** Where axial spinal stabilization precaution is indicated, the board should be elevated at least 4 inches on the right side for those patients who have a large pregnant uterus, usually applies to pregnant females  $\geq 24$  weeks of gestation.
- **Traumatic Arrest:** CPR if indicated. May utilize an AED if indicated.
- **Determination of Death on Scene:** Refer to ICEMA Reference #12010 - Determination of Death on Scene.

### III. LIMITED ALS (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.
- Apply AED.
- IV Access (warm IV fluids when available).
  - **Unstable:** BP<90mmHG and/or signs of inadequate perfusion, start 2<sup>nd</sup> IV access.
  - **Stable:** BP>90mmHG and/or signs of adequate tissue perfusion.

**Blunt Trauma:**

- *Unstable:* IV NS open until stable or 2000 ml maximum is infused.
- *Stable:* IV NS TKO

**Penetrating Trauma:**

- *Unstable:* IV NS 500 ml bolus one (1) time.
- *Stable:* IV NS TKO

**Isolated Closed Head Injury:**

- *Unstable:* IV NS 250 ml bolus, may repeat to a maximum of 500 ml.
- *Stable:* IV NS TKO

- Transport to appropriate hospital.

**A. Manage Special Considerations**

- **Axial Spinal Immobilization:** LALS personnel should remove axial spinal immobilization devices from patients placed in full axial spinal immobilization 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?

- Consider maintaining spinal alignment on the gurney, or using spinal axial immobilization 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 immobilization using long board.

- **Fractures:**

- **Isolated Extremity Trauma:** Trauma without multisystem mechanism. Extremity trauma is defined as those cases of injury where the limb itself and/or the appendicular skeleton (shoulder or pelvic girdle) may be injured, e.g., dislocated shoulder, hip fracture or dislocation.

- Administer IV NS 250 ml bolus one (1) time.
  - **Impaled Object:** Remove object upon Trauma base hospital physician order, if indicated.
  - **Traumatic Arrest:** Continue CPR as appropriate.
  - Apply AED and follow the voice prompts.
- B. Determination of Death on Scene:** Refer to ICEMA Reference #12010 - 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.
  - If the patient does not meet the “Obvious Death Criteria” in ICEMA Reference #12010 - 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.**
    - Whenever possible, consider minimal disturbance of a potential crime scene.

- **Base Hospital Orders:** May order additional fluid boluses.

#### IV. 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 perform a successful needle cricothyrotomy (if indicated), **then** transport to the closest receiving hospital and follow ICEMA Reference #8120 - Continuation of Care.
- Monitor ECG.
- IV/IO Access (Warm IV fluids when available).
  - *Unstable:* BP <90mmHG and/or signs of inadequate perfusion, start 2<sup>nd</sup> IV access.
  - *Stable:* BP >90mmHG and/or signs of adequate tissue perfusion.

#### **Blunt Trauma:**

- *Unstable:* IV NS open until stable or 2000 ml maximum is infused.
- *Stable:* IV NS TKO

#### **Penetrating Trauma:**

- *Unstable:* IV NS 500 ml bolus one (1) time.
- *Stable:* IV NS TKO

#### **Isolated Closed Head Injury:**

- *Unstable:* IV NS 250 ml bolus, may repeat to a maximum of 500 ml
- *Stable:* IV NS TKO
- Transport to appropriate hospital.
- Insert nasogastric/orogastric tube as indicated.

A. **Manage Special Considerations**

- **Axial Spinal Immobilization:** ALS personnel should remove axial spinal immobilization devices from patients placed in full axial spinal immobilization 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?

Distracting Injury?

- Consider maintaining spinal alignment on the gurney, or using spinal axial immobilization 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 immobilization using long board.
- **Chest Trauma:** Perform needle thoracostomy for chest trauma with symptomatic respiratory distress.
- **Fractures:**
  - **Isolated Extremity Trauma:** Trauma without multisystem mechanism. Extremity trauma is defined as those cases of injury where the limb itself and/or the appendicular skeleton (shoulder or pelvic girdle) may be injured, e.g., dislocated shoulder, hip fracture or dislocation.
  - **Pain Relief:**
    - Fentanyl per ICEMA Reference #7040 - Medication - Standard Orders.
    - Consider Ondansetron per ICEMA Reference #7040 - Medication - Standard Orders.
    - Patients in high altitudes should be hydrated with IV NS prior to IV pain relief to reduce the incidents of nausea, vomiting, and transient hypotension, which are side effects associated with administering IV Fentanyl. Administer IV NS 250 ml bolus one (1) time.
- **Head and Neck Trauma:** Immediately prior to intubation, consider prophylactic Lidocaine per ICEMA Reference #7040 - Medication - Standard Orders.

- **Base Hospital Orders:** When considering Nasotracheal intubation ( $\geq$  15 years of age) and significant facial trauma, trauma to the face or nose and/or possible basilar skull fracture are present, Trauma base hospital contact is required.
- **Impaled Object:** Remove object upon Trauma base hospital physician order, if indicated.
- **Traumatic Arrest:** Continue CPR as appropriate.
  - Treat per ICEMA Reference #11070 - Cardiac Arrest - Adult.

**B. Determination of Death on Scene:** Refer to ICEMA Reference #12010 - 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 #12010 - 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.
- 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.
  - **Unsafe scene may warrant transport despite low potential for survival.**
  - Whenever possible, consider minimal disturbance of a potential crime scene.

- **Base Hospital Orders:** May order additional medications and/or fluid boluses.

**V. REFERENCES**

<u>Number</u>	<u>Name</u>
7040	Medication - Standard Orders
8120	Continuation of Care
11070	Cardiac Arrest - Adult
12010	Determination of Death on Scene



## TRAUMA - PEDIATRIC (Less than 15 years of age)

Any critical trauma patient (CTP) requires effective communication and rapid transportation to the closest trauma center. If not contacted at scene, the receiving trauma center must be notified as soon as possible in order to activate the trauma team.

Inyo and Mono Counties do not have trauma center designations and the assigned base hospital should be contacted for determination of appropriate destination.

### I. FIELD ASSESSMENT/TREATMENT INDICATORS

Refer to ICEMA Reference #15030 - Trauma Triage Criteria and Destination Policy.

### II. BLS INTERVENTIONS

- Ensure thorough initial assessment.
- Ensure patient airway, protecting cervical spine.
- Oxygen and/or ventilate as needed, O<sub>2</sub> saturation (if BLS equipped).
- Keep patient warm and reassure.
- For a traumatic full arrest, an AED may be utilized, if indicated.
- Transport to ALS intercept or to the closest receiving hospital.

#### A. Manage Special Considerations

- **Axial Spinal Immobilization:** Using age appropriate assessments, 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 axial immobilization 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 immobilization using spine board.
- **Axial Spinal Immobilization with use of a Rigid Spine Board:** If the use of a rigid, spine board is indicated, and the level of the patient's head is greater than that of the torso, use approved pediatric spine board with a head drop or arrange padding on the board so that the ears line up with the shoulders and keep the entire lower spine and pelvis in line with the cervical spine and parallel to the board.
- **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.
- **Blunt 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 re-evaluate 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.
- **Traumatic Arrest:** CPR if indicated. May utilize an AED if indicated.
- **Determination of Death on Scene:** Refer to ICEMA Reference #12010 - Determination of Death on Scene.

### III. LIMITED ALS (LALS) INTERVENTIONS

- Advanced airway (as indicated).
  - **Unmanageable Airway:** Transport to the closest most appropriate receiving hospital when the patient requires an advance airway. An adequate airway cannot be maintained with a BVM device.
- Apply AED.
- IV Access (warm IV fluids when available).
  - **Unstable:** Vital signs (age appropriate) and/or signs of inadequate tissue perfusion, start 2<sup>nd</sup> IV access.  
  
Administer 20 ml/kg NS bolus IV. May repeat once.
  - **Stable:** Vital signs (age appropriate) and/or signs of adequate tissue perfusion.  
  
Maintain IV NS rate at TKO.
- Transport to appropriate hospital. Pediatric patients identified as CTP will be transported to a pediatric trauma hospital when there is less than a 20 minute difference in transport time to the pediatric trauma hospital versus the closes trauma hospital.

A. **Manage Special Considerations**

- **Axial Spinal Immobilization:** LALS personnel should remove axial spinal immobilization devices from patients placed in full axial spinal immobilization precautions by first responders and BLS personnel if the patient does not meet any of the following indicators while considering age-appropriate assessments when 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 axial immobilization 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 immobilization using long board.
- **Axial Spinal Immobilization with use of a Rigid Spine Board:** If the use of a rigid, spine board is indicated, and the level of the patient's head is greater than that of the torso, use approved pediatric spine board with a head drop or arrange padding on the board so that the ears line up with the shoulders and keep the entire lower spine and pelvis in line with the cervical spine and parallel to the board.
- **Fractures**
  - **Isolated Extremity Trauma:** Trauma without multisystem mechanism. Extremity trauma is defined as those cases of injury where the limb itself and/or the appendicular skeleton (shoulder or pelvic girdle) may be injured, e.g., dislocated shoulder, hip fracture or dislocation.
  - Administer IV NS 250 ml bolus one (1) time.
- **Impaled Object:** Remove object upon trauma base hospital physician order, if indicated.
- **Traumatic Arrest:** Continue CPR as appropriate.
  - Apply AED and follow the instructions.

- **Determination of Death on Scene:** Refer to ICEMA Reference #12010 - 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.
- If the patient does not meet the “Obvious Death Criteria” in ICEMA Reference #12010 - 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.
  - Confirm low blood sugar in children and treat as indicated with altered level of consciousness.
  - Suspect child maltreatment when physical findings are inconsistent with the history. Remember reporting requirements for suspected child maltreatment.
  - **Unsafe scene may warrant transport despite low potential for survival.**
  - Whenever possible, consider minimal disturbance of a potential crime scene.
- **Base Hospital Orders:** May order additional fluid boluses.

#### IV. 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 perform a successful needle cricothyrotomy (if indicated), **then**

transport to the closest receiving hospital and follow ICEMA Reference #8100 - Continuation of Trauma Care.

- Monitor ECG.
- IV/IO Access (Warm IV fluids when available).
  - *Unstable:* Vital signs (age appropriate) and/or signs of inadequate tissue perfusion, start 2<sup>nd</sup> IV access.  
  
Administer 20 ml/kg NS bolus IV/IO, may repeat once.
  - *Stable:* Vital signs (age appropriate) and/or signs of adequate tissue perfusion.  
  
Maintain IV NS rate at TKO.
- Transport to Trauma Center: Pediatric patients identified as CTP will be transported to a pediatric trauma hospital when there is less than a 20 minute difference in transport time to the pediatric trauma hospital versus the closest trauma hospital.
- Insert nasogastric/orogastric tube as indicated

**A. Manage Special Considerations**

- **Axial Spinal Immobilization:** ALS personnel should remove axial spinal immobilization devices from patients placed in full axial spinal immobilization precautions by first responders and BLS personnel if the patient does not meet any of the following indicators while considering age-appropriate assessments when 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 axial immobilization 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 immobilization using long board.

- **Axial Spinal Immobilization with use of a Rigid Spine Board:** If the use of a rigid, spine board is indicated, and the level of the patient's head is greater than that of the torso, use approved pediatric spine board with a head drop or arrange padding on the board so that the ears line up with the shoulders and keep the entire lower spine and pelvis in line with the cervical spine and parallel to the board.
- **Blunt Chest Trauma:** Perform needle thoracostomy for chest trauma with symptomatic respiratory distress.
- **Fractures**
  - **Isolated Extremity Trauma:** Trauma without multisystem mechanism. Extremity trauma is defined as those cases of injury where the limb itself and/or the appendicular skeleton (shoulder or pelvic girdle) may be injured - e.g. dislocated shoulder, hip fracture or dislocation.
  - **Pain Relief:**
    - Fentanyl per ICEMA Reference #7040 - Medication - Standard Orders.
    - For patients four (4) years old and older, consider Ondansetron per ICEMA Reference #7040 - Medication - Standard Orders.
    - Patients in high altitudes should be hydrated with IV NS prior to IV pain relief to reduce the incidents of nausea, vomiting, and transient hypotension, which are side effects associated with administering IV Fentanyl. Administer 20 ml/kg NS bolus IV/IO one time.
- **Head and Neck Trauma:** Immediately prior to intubation, consider prophylactic Lidocaine per ICEMA Reference #7040 - Medication - Standard Orders for suspected head/brain injury.
- **Base Hospital Orders:** When considering Nasotracheal intubation ( $\geq 15$  years of age) and significant facial trauma, trauma to the face or nose and/or possible basilar skull fracture are present, Trauma base hospital contact is required.
- **Impaled Object:** Remove object upon Trauma base hospital physician order, if indicated.
- **Traumatic Arrest:** Continue CPR as appropriate.
  - Treat per ICEMA Reference #14040 - Cardiac Arrest - Pediatric.

- **Determination of Death on Scene:** Refer to ICEMA Reference #12010 - 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.
- If the patient does not meet the “Obvious Death Criteria” in ICEMA Reference #12010 - 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.
- 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.
  - Confirm low blood sugar in children and treat as indicated with altered level of consciousness.
  - Suspect child maltreatment when physical findings are inconsistent with the history. Remember reporting requirements for suspected child maltreatment.
  - **Unsafe scene may warrant transport despite low potential for survival.**
  - Whenever possible, consider minimal disturbance of a potential crime scene.
- **Base Hospital Orders:** May order additional medications and/or fluid boluses.

## V. REFERENCES

<u>Number</u>	<u>Name</u>
7040	Medication - Standard Orders
12010	Determination of Death on Scene
14040	Cardiac Arrest - Pediatric
15030	Trauma Triage Criteria and Destination Policy



## FIRELINE PARAMEDIC

### I. PURPOSE

To provide guidance and medical oversight for an ICEMA paramedic (EMT-P) deployed to function as a fireline paramedic (FEMP).

This protocol is for use by authorized FEMPs during fire suppression activities and treatment of fire suppression personnel only.

### **AUTHORITY**

~~California Health and Safety Code, Division 2.5, Sections 1797.204, 1797.220  
California Code of Regulations, Title 22, Division 9, Sections 100165 and 100167  
California Fire Service and Rescue Emergency Mutual Aid System, Mutual Aid Plan, (3-2002).  
California Code of Regulations Title 22, Division 9, Section 100165 (1) states: "During a mutual aid response into another jurisdiction, a paramedic may utilize the scope of practice for which s/he is trained and accredited according to the policies and procedures established by his/her accrediting local EMS agency."~~

### **DEFINITIONS**

~~Fireline Emergency Medical Technician-P (FEMP): A paramedic who meets all prerequisites established by FIRESCOPE and is authorized by the paramedic's department to provide ALS treatment on the fireline to ill or injured fire suppression personnel.~~

### II. REQUIREMENTS

1. Must be a currently licensed paramedic in California.
2. Must be currently accredited paramedic in the ICEMA region.
3. Must be currently employed by an ICEMA approved ALS provider.
4. The FEMP will follow FIRESCOPE FEMP ICS 223-11 Position Manual and all other ICS protocols.
5. The FEMP will check in and obtain briefing from the Logistics Section Chief or the Medical Unit Leader, if established. Briefing will include

current incident situation, anticipated medical needs, and local emergency medical system orientation.

6. The FEMP will provide emergency medical treatment to personnel operating on the fireline.
7. The FEMP will follow ICEMA prior to contact protocols if unable to contact the assigned base station.
8. The FEMP may not perform skills outside of the ICEMA scope of practice.

### **III. PROCEDURE**

1. The EMS provider will notify ICEMA of the deployment of the FEMP to an incident.
2. The FEMP will carry inventory in the advanced life support (ALS) pack as per the attached inventory list. Inventory will be supplied and maintained by the employing provider agency. Additional items for restock should also be maintained and secured in a vehicle or in the Medical Unit trailer.
3. Incident Medical Units may not have the capability of resupplying controlled substances (narcotics). Providers should stock sufficient quantities of medical supplies and medications, especially controlled substance medications, to assure adequate supplies and medications.
4. Narcotics must be under double lock and maintained on the FEMP person or secured in his/her vehicle at all times as per the ICEMA Drug and Equipment List.
5. FEMP may carry an inventory of controlled substances (i.e., ~~Morphine~~Fentanyl and Midazolam) if authorized by the employing agency's Medical Director. The authorizing Medical Director is responsible to assure full compliance with all federal and state laws relating to purchase, storage and transportation of controlled substances. Only controlled substances approved for use in the ICEMA region may be carried and their use must be in accordance with current ICEMA patient care protocols.
6. Radio communication failure protocols will not be used. Prior to base contact protocols will be followed. If further treatment is needed, radio contact with the base hospital should be established as soon as possible.
7. Documentation of patient care must follow ICEMA protocol utilizing the ePCR, if available, or a paper OIA form. All patient care records will be reviewed by the provider agency and ICEMA for QI purposes.

8. A FEMP will be paired with a fireline EMT (FEMT) or another FEMP who will assist with basic life support (BLS) treatment and supplies.

**IV. FIRELINE EMT-P (ALS) PACK INVENTORY**

*Minimum Requirements. The weight of the pack will dictate if the EMT-P chooses to carry additional ALS supplies.*

**MEDICATIONS/SOLUTIONS**

Medications/Solutions	ALS
Albuterol Solution 2.5 mg Handheld Nebulizer or Multidose Inhaler	4
Atropine Sulfate 1 mg	2
Ipratropium Bromide Solution 0.5 mg Handheld Nebulizer or Multidose Inhaler	4
Lidocaine 100 mg IV pre-load	2
Aspirin 80 mg chewable	1 bottle
<del>Dextrose 50% 25 gm pre-load (1) Dextrose</del> <del>10%/250 ml (D10W 25 gm) IV/IO Bolus</del>	1
Diphenhydramine 50 mg	4
Epinephrine 1: 10,000 1 mg	2
Epinephrine 1: 1000 1 mg	4
Glucagon 1 mg	1
Nitroglycerin spray 0.4 metered dose	1
Saline 0.9% IV 1000 ml may be divided in two 500 ml bags or four 250 ml bags.	

**CONTROLLED SUBSTANCE MEDICATIONS**

Controlled Substance Medications <b>MUST BE DOUBLED LOCKED</b>	ALS
Midazolam <del>20 mg</del>	<u>20 mg</u>
<del>Morphine Sulfate 10 mg/ml Fentanyl</del> (amount determined by the medical director)	<u>200 - 400 mcg</u>

**ALS AIRWAY EQUIPMENT**

Airway Equipment	ALS
Endotracheal Tubes - 6.0, 7.0 and/or 7.5 cuffed with stylet	1 each
Laryngeal blades - #0, #1, #2, #3, #4 curved and/or straight	1 each
Laryngoscope handle with batteries - or 2 disposable handles	1 each

Airway Equipment	ALS
King Airway - Size 3, 4, and 5	1 each
ET Tube holder	1
End Tidal CO2 Detector	1
Needle Cricothyrotomy Kit	1
Needle Thoracostomy Kit	1

**IV/MEDICATION ADMINISTRATION SUPPLIES**

IV/Medication Administration Supplies	ALS
IV administration set macro drip	2
Venaguard	2
Alcohol preps	6
Betadine swabs	4
Tourniquet	2
Razor	1
Tape	1
IV catheters - 14, 16, 18 and 20 gauge	2
10cc syringe	2
1 cc TB syringe	2
18 gauge needle	4
25 gauge needle	2
<del>Lancets</del>	

**MISCELLANEOUS EQUIPMENT**

Miscellaneous	ALS
Sharps container	1
Narcotic storage per protocol	
FEMP pack inventory sheet	1
Patient care record or ePCR (Toughbook)	
AMA forms	3

Equipment	ALS
Compact AED or compact monitor defibrillator combination	
Appropriate cardiac pads	
Pulse oximetry (optional)	
Glucometer, <del>and</del> -test strips <u>and lancets</u>	4

The BLS pack and supplies will be carried by the FEMT or accompanying FEMP. Personal items and supplies cannot be carried in either the ALS pack or the BLS pack.



## TACTICAL MEDICINE PROGRAM

### I. PURPOSE

To provide medical oversight and continuous quality improvement and establish policies and procedures for EMS personnel assigned to Tactical Medicine Programs within the ICEMA region.

### ~~DEFINITION~~

~~Tactical medicine, for the purpose of this policy, is defined as the delivery of emergency medical care during law enforcement special operations.~~

### ~~AUTHORITY~~

~~California Penal Code, Section 13514.1; California Health and Safety Code, Sections 1797.218, 1797.220, 1797.222, and 1798-1798.6; California Code of Regulations, Title 22, Division 9, Chapter 4, Sections 10145, 100169, and 100170; Tactical Medicine: Operational Programs and Standardized Training Recommendations (POST, 2010)~~

### II. POLICY

1. Tactical Medicine Programs shall be developed and utilized in accordance with the “California POST/EMSA Tactical Medicine Operational Programs and Standardized Training Recommendations” document that can be located on the EMSA website at: <http://www.emsa.ca.gov/personnel/files/TacticalMedicine.pdf>.
2. Tactical Medicine Programs and their medical personnel (Emergency Medical Technicians (EMTs), Advanced EMT (AEMTs), Paramedics (EMT-Ps), and Registered Nurses (RNs)) shall be integrated into the local EMS system, in coordination with ICEMA, the local Emergency Medical Services (EMS) Agency (POST, 2010).
3. Tactical medicine programs shall be reviewed and approved by ICEMA.
4. Administration of this policy applies to EMTs, AEMTs, EMT-Ps, and RNs providing medical services within an established EMS Agency and as part of a recognized Tactical Medical Program.
  - a. The medical scope of practice for EMTs, AEMTs and EMT-Ps is consistent with Title 22, Division 9 and all ICEMA protocols.

5. Tactical Medicine Programs should designate a Tactical Medicine Program Director as defined within POST and EMSA guidelines.
6. Tactical Medicine Programs should designate a physician as a Tactical Medicine Medical Director “to provide medical direction, continuous quality improvement, medical oversight, and act as a resource for medical contingency planning” (POST, 2010).
7. Tactical Medicine Operational Programs should have components pertaining to planning, medical oversight, quality improvement and training as defined in *Tactical Medicine Operational Programs and Standardized Training Recommendations* (POST, 2010; Section 2.2.1-7).
8. Tactical Medicine Programs should include tactical medical personnel in mission planning and risk assessment to ensure appropriate assets are available for the identified mission as defined in *Tactical Medicine Operational Programs and Standardized Training Recommendations* (POST, 2010; Section 2.2.2).

### **III. PROCEDURE**

1. All agencies that intend to provide a Tactical Medicine Program will:
  - a. Submit an ICEMA approved application for a Specialty Program for review by ICEMA.
  - b. Submit a copy of the proposed program to include all information as listed on the application.
  - c. Provide a list of all RNs, EMTs and EMT-Ps assigned to the Tactical Medicine Program.
  - d. Tactical medical personnel must be:
    - 1) EMT-Ps must be California licensed and accredited by ICEMA.
    - 2) EMTs and AEMTs must be California certified.
    - 3) RNs must be licensed as a Registered Nurse in California and an approved Flight Nurse, MICN, or EMT-P within the ICEMA region.
  - e. Participate in ICEMA approved Continuous Quality Improvement process.

**IV. TRAINING**

Designated Tactical Emergency Medical Support (TEMS) personnel shall successfully complete all initial and ongoing recommended training provided by an approved tactical medicine training program as listed in the “California POST/EMSA *Tactical Medicine Operational Programs and Standardized Training Recommendations* - March 2010 document.

**V. DRUG AND EQUIPMENT LISTS**

Equipment and supplies carried and utilized by Tactical Emergency Medical Support (TEMS) personnel shall be consistent with the items listed in the California POST / EMSA *Tactical Medicine Operational Programs and Standardized Training Recommendations* document. Equipment and supplies shall be based on the appropriate level of personnel utilized for the particular Tactical Medicine Program (TEMS BLS or TEMS ALS).

The Tactical Medicine Program standard list of drugs and equipment carried by TEMS BLS or TEMS ALS medical personnel must be reviewed and approved by ICEMA prior to issue or use by EMT or EMT-P personnel.

**TACTICAL MEDICINE OPERATIONAL EQUIPMENT RECOMMENDATIONS**

Medications	BLS	ALS
Albuterol 2.5mg with Atrovent 0.5mg MDI		1
Aspirin 81mg		1 bottle
Atropine Sulfate 1mg preload		1
Dextrose 50% 25gm preload		1
Diphenhydramine 50mg		2
Epinephrine (1:1000) 1mg		2
Epinephrine (1:10,000)1mg preload		2
Glucagon 1mg		1
Naloxone 2mg preload		2
Nerve Agent Antidote (DuoDote)		1
Nitroglycerine 0.4 metered dose or tablets (tablets to be discarded 90 days after opening)		1
Normal Saline 500ml		2
Ondansetron 4mg IV/IM/oral tabs		4

**CONTROLLED SUBSTANCE MEDICATIONS**

Controlled Substance Medications MUST BE DOUBLED LOCKED	BLS	ALS
Midazolam		20 mgs
<del>Morphine Sulfate vials</del> <u>Fentanyl</u>		<del>20 mgs</del> <u>200 - 400 mcg</u>

**AIRWAY EQUIPMENT**

<b>Airway Equipment</b>	<b>BLS</b>	<b>ALS</b>
Chest seal and Flutter Valve		1
End Tidal CO2 (device may be integrated into bag)		1
Endotracheal Tubes - 6.0 and/or 6.5, 7.0 and/or 7.5, and 8.0 and/or 8.5 with stylet		1 each
ET Tube holder		1
King LTS-D Size 4 and 5	1 each if approved	1 each
Laryngoscope Kit		1
Nasopharyngeal Airways Adult	1set	1set
Needle Cricothyrotomy Device		1
Needle Thoracostomy Kit		1
Suction (hand held)	1	1
Ventilation Bag collapsible (BVM)	1	1

**IV/MONITORING EQUIPMENT**

<b>IV/Needle/Syringes</b>	<b>BLS</b>	<b>ALS</b>
AED (with waveform monitoring preferred)	1	1
AED Pads	1	1
Blood Pressure Cuff	1	1
IO Device and Needles		1
IV Needles 14-20 Gauge		1 of each
IV Start Kit		1
IV Tubing		1
Pulse Oximeter (optional)		1
Saline Flush		2
Saline Lock		2
Stethoscope	1	1
Syringes 3cc,5cc,10cc		1 each

**DRESSING AND SPLINTING**

<b>Dressing/Splints</b>	<b>BLS</b>	<b>ALS</b>
CoTCCC - Recommended Tourniquet system	1	1
Elastic compression dressing	1	1
Latex free gloves	1	1
N95 Mask	1	1
Occlusive dressing	1	1
Roller bandage	1	1
Splint - semi-ridged moldable	1	1
Sterile gauze pads	1	1
Tape	1	1

Trauma dressing	1	1
Trauma shears	1	1
Triangle bandage	1	1
Hemostatic impregnated gauze non-exothermic, i.e., Combat Gauze (optional)	2	2

### MISCELLANEOUS EQUIPMENT

Miscellaneous Equipment	BLS	ALS
Litter	1	1
Patient care record	1	1
Personal protection equipment (PPE)	1	1
Triage tags	10	10
Tactical light	1	1
Eyewear	1	1
Rescue blanket	1	1
Self-heating blanket	1	1



## BLS/LALS/ALS STANDARD DRUG & EQUIPMENT LIST

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
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
Albuterol MDI with spacer		1 SPECIALTY PROGRAMS ONLY	1 SPECIALTY PROGRAMS ONLY	1 SPECIALTY PROGRAMS ONLY
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
<del>Dextrose 25% 2.5 gm preload *</del>			<del>2</del>	<del>2</del>
<del>Dextrose 50% 25 gm preload *</del>		<del>2</del>	<del>2</del>	<del>2</del>
Diphenhydramine (Benadryl) 50 mg			1	1
Dopamine 400 mg			1	1
Epinephrine 1:1000 1 mg		2	2	2
Epinephrine 1:10,000 1 mg preload			3	3
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 100 mg			3	3
Lidocaine 1 gm or 1 bag pre-mixed 1 gm/250 cc D5W			1	1
Lidocaine 2% Intravenous solution			1	1
Lidocaine 2% (Viscous) dose			1	1
Magnesium Sulfate 10 gm			1	1
Naloxone (Narcan) 2 mg preload		2	2	2

Exchanged Medications/Solutions	BLS	LALS	ALS Non-Transport	ALS Transport
Nitroglycerine - Spray 0.4 mg metered dose and/or tablets (tablets to be discarded 90 days after opening)		2	1	2
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
Phenylephrine HCL - 0.5 mg per metered dose			1 bottle	1 bottle
Procainamide 1 gm			1	2
Sodium Bicarbonate 50 mEq preload			2	2
Verapamil 5 mg			3	3

~~\* All EMS providers must transition to Dextrose 10% (D10W) by June 1, 2015. Between December 1, 2014 and June 1, 2015, EMS providers may carry reduced quantities of D50 and D25 provided a minimum of 50 gm is available in combination of all concentrations.~~

### CONTROLLED SUBSTANCE MEDICATIONS

Non-Exchange Controlled Substance Medications MUST BE DOUBLE LOCKED	BLS	LALS	ALS Non-Transport	ALS Transport
Fentanyl **			200-400 mcg	200-400 mcg
Midazolam			20-40mg	20-40mg
<del>Morphine Sulfate vials of 10 mg **</del>			<del>20-60mg</del>	<del>30-60mg</del>

~~\*\* All EMS providers must transition to Fentanyl by June 1, 2015. Between December 1, 2014 and June 1, 2015, EMS providers must stock either Fentanyl or Morphine but not both.~~

### AIRWAY/SUCTION EQUIPMENT

Exchanged Airway/Suction Equipment	BLS	LALS	ALS Non-Transport	ALS Transport
BAAM Device			1	2
CPAP circuits - all manufacture's available sizes			1 each	2 each
End Title 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
Endotracheal Tubes, uncuffed - 2.5, 3.0, 3.5 with stylet			2 each	2 each
Endotracheal Tubes, uncuffed - 4.0 or 4.5, 5.0 or 5.5 with stylet			2 each	2 each
ET Tube holders - pediatric and adult		1 each	1 each	2 each
King LTS-D Adult: Size 3 (yellow) Size 4 (red) Size 5 (purple)	2 each SPECIALTY PROGRAMS ONLY	1 each	1 each	2 each

<b>Exchanged Airway/Suction Equipment</b>	<b>BLS</b>	<b>LALS</b>	<b>ALS Non-Transport</b>	<b>ALS Transport</b>
King Ped: 12-25 kg: Size 2 (green) 25-35 kg: Size 2.5 (orange)	2 each SPECIALTY PROGRAMS ONLY	1 each	1 each	2 each
Mask - Adult & Pediatric non-rebreather oxygen mask	2 each	2 each	2 each	2 each
Mask - Infant 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
One way flutter valve with adapter or equivalent			1	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

<b>Non-Exchange Airway/Suction Equipment</b>	<b>BLS</b>	<b>LALS</b>	<b>ALS Non-Transport</b>	<b>ALS Transport</b>
Ambulance oxygen source -10 L /min for 20 minutes	1			1
Flashlight/penlight	1	1	1	1
Laryngeal 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**

<b>Exchanged IV/Needles/Syringes/Monitor Equipment</b>	<b>BLS</b>	<b>LALS</b>	<b>ALS Non- Transport</b>	<b>ALS Transport</b>
Conductive medium or Pacer/Defibrillation pads			2 each	2 each
Disposable Tourniquets		2	2	2
ECG electrodes			20	20
EZ-IO Needles and Driver 15 mm, 25 mm, and 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
3-way stopcock with extension tubing			2	2
IV Catheters - sizes 14, 16, 18, 20, 22, 24		2 each	2 each	2 each
Macro drip Administration Set		3	3	3
Micro drip Administration Set (60 drops /cc)		1	1	2
Mucosal Atomizer Device (MAD) for nasal administration of medication		2	2	4
Pressure Infusion Bag (disposable)		1	1	1
Razors		1	2	2
Safety Needles - 20 or 21 gauge and 23 or 25 gauge		2 each	2 each	2 each
Saline Lock Large Bore Tubing Needless		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

<b>Non-Exchange IV/Needles/Syringes/Monitor Equipment</b>	<b>BLS</b>	<b>LALS</b>	<b>ALS Non- Transport</b>	<b>ALS Transport</b>
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
Thermometer - Mercury Free with covers	1	1	1	1

**OPTIONAL EQUIPMENT/MEDICATIONS**

<b>Non-Exchange Optional Equipment/Medications</b>	<b>BLS</b>	<b>LALS</b>	<b>ALS Non- Transport</b>	<b>ALS Transport</b>
AED/defib pads - Adult (1), Pediatric (1)	1 each	1 each		
Ammonia Inhalants			2	2
Automatic CPR device (FDA approved)	1	1	1	1

Non-Exchange Optional Equipment/Medications	BLS	LALS	ALS Non-Transport	ALS Transport
Automatic ventilator (ICEMA approved)			1	1
Backboard padding	1	1	1	1
Buretrol			1	1
Chemistry profile tubes			3	3
CyanoKit (Specialty Program Only)			1	1
EMS Tourniquet	1		1	1
Endotracheal Tubes, cuffed - 2.5, 3.0, 3.5 with stylet			SPECIALTY PROGRAMS ONLY	SPECIALTY PROGRAMS ONLY
Endotracheal Tubes, cuffed - 4.0 or 4.5, 5.0 or 5.5 with stylet			SPECIALTY PROGRAMS ONLY	SPECIALTY PROGRAMS ONLY
Gum Elastic intubation stylet			2	2
Hemostatic Dressings *	1	1	1	1
IO Needles - Manual, Adult and Pediatric, Optional		Pediatric sizes only or EZ-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
Pitocin			20 units	20 units
Pulse Oximetry device	1			
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

**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**

<b>Exchanged Dressing Materials/Other Equipment/Supplies</b>	<b>BLS</b>	<b>LALS</b>	<b>ALS Non-Transport</b>	<b>ALS Transport</b>
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
Bedpan or fracture pan	1(BLS TRANSPORT UNITS ONLY			1
Urinal	1(BLS TRANSPORT UNITS ONLY			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

<b>Non-Exchange Dressing Materials/Other Equipment/Supplies</b>	<b>BLS</b>	<b>LALS</b>	<b>ALS Non-Transport</b>	<b>ALS Transport</b>
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
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

<b>Non-Exchange Dressing Materials/Other Equipment/Supplies</b>	<b>BLS</b>	<b>LALS</b>	<b>ALS Non-Transport</b>	<b>ALS Transport</b>
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 - CAL Chiefs or ICEMA approved	20	20	20	20



## EMS AIRCRAFT STANDARD DRUG & EQUIPMENT LIST

Each Aircraft shall be equipped with the following functional equipment and supplies. This list represents mandatory items with minimum quantities, to exclude 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.

MEDICATIONS/SOLUTIONS	AMOUNT
Adenosine (Adenocard) 6 mg	1
Adenosine (Adenocard ) 12 mg	2
Albuterol Aerosolized Solution (Proventil) - unit dose 2.5 mg	3 doses
Aspirin, chewable - 81 mg tablet	1 bottle
Atropine 1 mg preload	2
Calcium Chloride 1 gm preload	1
Dextrose 10% in 250 ml Water (D10W) *	2
<del>Dextrose 25% 2.5 gm preload *</del>	<del>2</del>
<del>Dextrose 50% 25 gm preload *</del>	<del>2</del>
Diphenhydramine (Benadryl) 50 mg	1
Dopamine 400 mg	1
Epinephrine 1:1,000	2
Epinephrine 1:10,000	2
Glucagon 1 mg	1
Glucopaste	1 tube
Ipratropium Bromide Inhalation Solution (Atrovent) unit dose 0.5 mg	3
Lidocaine 100 mg	3
Lidocaine 1 gm or 1 bag pre-mixed 1 gm/250 cc D5W	1 gm
Lidocaine 2% Intravenous solution	1
Lidocaine 2% (Viscous)	1 dose
Magnesium Sulfate 10 gms	1
Naloxone (Narcan) 2 mg preload	2
Nitroglycerin - Spray 0.4 mg metered dose and/or tablets (tablets to be discarded 90 days after opening.)	1
Normal Saline for Injection (10 cc)	2
Normal Saline 250 ml	1
Normal Saline 500 ml and/or 1000 ml	2000 ml
Ondansetron (Zofran) 4 mg Oral Disintegrating Tablets (ODT)	4
Ondansetron (Zofran) 4 mg IM/ IV	4
Phenylephrine HCL - 0.5 mg per metered dose	1 bottle
Procainamide 1 gm	1
Sodium Bicarbonate 50 mEq preload	2
Verapamil 5 mg	3

\*—All EMS providers must transition to Dextrose 10% (D10W) by June 1, 2015. Between December 1, 2014 and June 1, 2015, EMS providers may carry reduced quantities of D50 and D25 provided a minimum of 50 gm is available in combination of all concentrations.

<b>CONTROLLED SUBSTANCE MEDICATIONS-MUST BE DOUBLE LOCKED</b>	<b>AMOUNT</b>
Fentanyl	200-400 mcg
Midazolam	20-40 mg

<b>AIRWAY/SUCTION EQUIPMENT</b>	<b>AMOUNT</b>
Aircraft Oxygen source -10 L /min for 20 minutes	1
BAAM Device	1
C-PAP circuits - all manufacture's available sizes	1 each
End-tittle CO2 device - pediatric and adult (may be integrated into bag)	1 each
Endotracheal tubes, uncuffed - 2.5, 3.0, 3.5 with stylet	2 each
Endotracheal Tubes, uncuffed - 4.0 or 4.5, 5.0 or 5.5 with stylet	2 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
ET Tube holders - pediatric and adult	1 each
Flashlight/penlight	1
King LTS-D Adult: Size 3 (yellow) Size 4 (red) Size 5 (purple)	1 each
King Ped: 12-25 kg: Size 2 (green) 25-35 kg: Size 2.5 (orange)	1 each
Laryngoscope handle with batteries - or 2 disposable handles	1
Laryngeal blades - #0, #1, #2, #3, #4 curved and/or straight	1 each
Magill Forceps - Pediatric and Adult	1 each
Nasal Cannulas - infant, pediatric and adult	2 each
Naso/Orogastric tubes - 10fr or 12fr, 14fr, 16fr or 18fr	1 each
Naso/Orogastric feeding tubes - 5fr or 6fr, and 8fr	1 each
Nasopharyngeal Airways - infant, child, and adult	1 each
Needle Cricothyrotomy Device (Approved) - Pediatric and adult <i>or</i>	1 each
Needles for procedure 10, 12, 14 and/or 16 gauge	2 each
Non Re-Breather O <sub>2</sub> Mask - Pediatric and Adult, Infant Simple Mask	2 each
One way flutter valve with adapter or equivalent	1
Oropharyngeal Airways - infant, child, and adult	1 each
Portable Oxygen with regulator - 10 L /min for 20 minutes	1
Portable suction device (battery operated) <i>and/or</i> Wall mount suction device	1 each
Pulse Oximetry device	1
Small volume nebulizer with universal cuff adaptor	1
Stethoscope	1
Suction catheters - 6fr, 8fr or 10fr, 12fr or 14fr	1 each
Ventilation Bags - Infant 250 ml, Pediatric 500 ml and Adult 1 L	1 each
Water soluble lubricating jelly	1
Ridged tonsil tip suction	1

<b>IV/NEEDLES/SYRINGES/MONITORING EQUIPMENT</b>	<b>AMOUNT</b>
12-Lead ECG Monitor and Defibrillator with TCP and printout	1
800 MHz Radio	1
Blood pressure cuff - large adult or thigh cuff, adult, child and infant	1 set
Capnography monitor and supplies, may be integrated in the cardiac monitor	1
Conductive medium <i>or</i> Adult and Pediatric Pacer/Defibrillation pads	2 each
ECG - Pediatric and Adult	20 patches
EZ IO Needles and Driver 15 mm, 25 mm, and 45 mm	2 each 1 each
3-way stopcock with extension tubing	2
IO Needles - Manual, Adult and Pediatric, <u>Optional</u>	1 each
IV Catheters - sizes 14, 16, 18, 20, 22, 24	2 each
Glucose monitoring device	1
Macro drip Administration Set	3
Micro drip Administration Set (60 drops/ml)	1
Mucosal Atomizer Device (MAD) for nasal administration of medication	4
Needle disposal system (OSHA approved)	1
Pressure infusion bag	1
Safety Needles - 20 or 21 gauge and 23 or 25 gauge	2 each
Saline Lock	2
Syringes w/wo safety needles - 1 ml, 3 ml, 10 ml, 20 ml	2 each
Syringe - 60 ml catheter tip	2
Thermometer - Mercury free with covers	1

<b>DRESSING MATERIALS/OTHER EQUIPMENT SUPPLIES</b>	<b>AMOUNT</b>
Adhesive tape - 1 inch	2
Air occlusive dressing	1
Aircraft stretcher or litter system with approved FAA straps that allows for Axial Spinal Immobilization	1
Ankle and wrist restraints, soft ties acceptable	1
Antiseptic swabs/wipes	
Bandage shears	1
Blanket or sheet	2
Blood Borne Pathogen Protective Equipment - (nonporous gloves, goggles face masks and gowns meeting OSHA Standards)	2
Cervical Collars - Rigid Pediatric & Adult all sizes <i>or</i>	1 each
Cervical Collars - Adjustable Adult and Pediatric	1 each
Emesis basin or disposable bags and covered waste container	1
Head immobilization device	1
OB Kit	1
Pneumatic or rigid splints capable of splinting all extremities	4
Providence/Iodine swabs/wipes or antiseptic equivalent	
Roller bandages - 4 inch	3
Sterile bandage compress or equivalent	6
Sterile gauze pads - 4x4 inch	4

DRESSING MATERIALS/OTHER EQUIPMENT SUPPLIES	AMOUNT
Sterile Sheet for Burns	2
Traction splint	1
Universal Dressing 10x30 inches	2

OPTIONAL EQUIPMENT/MEDICATIONS	Amount
Ammonia Inhalants	2
Automatic ventilator (Approved)	1
Backboard padding	1
BLS AED/defib pads	1
Chemistry profile tubes	3
CyanoKit (Specialty Program Only)	SPECIALTY PROGRAMS ONLY
D5W in bag	1
Endotracheal tubes, cuffed - 2.5, 3.0, 3.5 with stylet	SPECIALTY PROGRAMS ONLY
Endotracheal Tubes, cuffed - 4.0 or 4.5, 5.0 or 5.5 with stylet	SPECIALTY PROGRAMS ONLY
Hemostatic Dressing *	1
IV infusion pump	1
IV warming device	1
Manual powered suction device	1
Medical Tourniquet	1
Needle Thoracostomy Kit (prepackaged)	2
Pediatric immobilization board	1
Pitocin	2
Translaryngeal Jet Ventilation Device	1
Vacutainer	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

**Note:**

- The above products are “packaged” in various forms (i.e., Z-fold, rolled gauze, trauma pads, and 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.



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## CONTROLLED SUBSTANCE POLICY

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### I. PURPOSE

To establish minimum requirements and accountability for ICEMA approved ALS providers to procure, stock, transport, and use controlled substances in compliance with the Federal Controlled Substances Act.

### ~~II. AUTHORITY~~

~~California Code of Regulations Title 22, Division 9, Chapter 4, Article 7, Section 100168~~

### III. POLICY

All ICEMA approved ALS providers shall have a formal agreement with a qualified Medical Director or a drug authorizing physician who agrees to purchase controlled substances using the appropriate DEA registration number and forms. This physician will retain ownership, accountability and responsibility for these controlled substances at all times.

**All ALS providers shall develop policies compliant with The Controlled Substances Act Title 21, United States Code (USC) and California Code of Regulations Title 22, Division 9, Chapter 4, Article 7, Section 100168.** These policies must ensure that security mechanisms and procedures are established for controlled substances, including, but not limited to:

- Controlled substance ordering and order tracking
- Controlled substance receipt and accountability
- Controlled substance master supply storage, security and documentation
- Controlled substance labeling and tracking
- Vehicle storage and security
- Usage procedures and documentation
- Reverse distribution
- Disposal
- Re-stocking

Additionally, the policies must ensure that mechanisms for investigation and mitigation of suspected tampering or diversion are established, including, but not limited to:

- Controlled substance testing
- Discrepancy reporting

- Tampering, theft and diversion prevention and detection
- Usage audits

The ALS provider's medical director or drug authorizing physician must be a physician licensed to practice medicine in the State of California and must apply and obtain a valid DEA registration number for the ALS provider they propose to purchase controlled substances for. If a physician has agreements with multiple ALS providers, separate DEA registration numbers are required for each individual EMS provider. Physicians should not use their personal DEA registration number that they use for their clinical practice.

#### **III.V. PROCEDURE**

All controlled substances shall:

1. Be purchased and stored in tamper evident containers.
2. Be stored in a secure and accountable manner.
3. Be kept under a "double lock" system at all times.
4. Be reconciled at a minimum every 24 hours or at any change of shift or change in personnel.

#### **IV. REQUIRED DOCUMENTATION**

1. ALS providers must maintain a log of all purchased controlled substances for a period of no less than two (2) years.
2. All controlled substance usage will be documented on all patient care records (PCR) or electronic patient care reports (ePCR).
3. EMS Provider's medical director must determine the manner by which unused and expired controlled substances are discarded. The practice must be in compliance with all applicable local, state, and federal regulations and the process should be clearly stated in the EMS provider's controlled substances policy.
4. In the event of breakage of a narcotic container an incident report will be completed and the damage reported to the appropriate supervisor.
5. Discrepancies in the narcotic count will be reported immediately to the appropriate supervisor and a written report must be submitted.

# SAMPLE DAILY LOG

Agency: \_\_\_\_\_

Month: \_\_\_\_\_ Year: \_\_\_\_\_

Double Lock

Shift Change Medic

Date

In Place

Midazolam 5mg

On

	DATE	DOUBLE LOCK IN PLACE?	MIDAZOLAM 5MG	<del>MORPHONE</del> 10MG FENTANYL	DRUG ADMINISTERED - AMOUNT GIVEN/WASTED O1A # PATIENT NAME DATE/TIME MEDIC NAME	DUTY MEDIC	CAPTAIN OR SUPERVISOR
1		Yes / No	Amount _____	Amount_____		Can Not Be Same Signature	Can Not Be Same Signature
2		Yes / No	Amount _____	Amount_____		Can Not Be Same Signature	Can Not Be Same Signature
3		Yes / No	Amount _____	Amount_____		Can Not Be Same Signature	Can Not Be Same Signature
4		Yes / No	Amount _____	Amount_____		Can Not Be Same Signature	Can Not Be Same Signature
5		Yes / No	Amount _____	Amount_____		Can Not Be Same Signature	Can Not Be Same Signature
6		Yes / No	Amount _____	Amount_____		Can Not Be Same Signature	Can Not Be Same Signature
7		Yes / No	Amount _____	Amount_____		Can Not Be Same Signature	Can Not Be Same Signature
8		Yes / No	Amount _____	Amount_____		Can Not Be Same Signature	Can Not Be Same Signature





## MEDICATION - STANDARD ORDERS

### **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, 11050*

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

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

*Reference #s 6090, 7010, 7020, 11010, 11100, 14030*

### **Albuterol Metered-Dose Inhaler (MDI) (Proventil) - Specialty Programs Only Adult (LALS, ALS)**

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

*Reference #s 6090, 6110, Sheriff's Search and Rescue*

### **Albuterol - Pediatric (LALS, ALS)**

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

*Reference #s 7010, 7020, 14010, 14030, and 14070*

### **Aspirin, chewable (LALS, ALS)**

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

*Reference #s 2020, 6090, 6110, 7010, 7020, 11060*

### **Atropine (ALS)**

Atropine, 0.5 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 6090, 6110, 7010, 7020, 11040, 12020, 13010*

### **Calcium Chloride (ALS)**

#### *Calcium Channel Blocker Poisonings:*

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

*Reference #s 2020, 7010, 7020, 13010*

### **Dextrose - Adult (LALS, ALS)**

Dextrose 10%/250 ml (D10W 25 gm) IV/IO Bolus

*Reference #s 2020, 6090, 6110, 7010, 7020, 8010, 11050, 11070, 11080, 13020, 13030*

### **Dextrose - Pediatric (LALS, ALS)**

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

Dextrose 10%/250 ml (D10W 25 gm) 0.5 gm/kg (5 ml/kg) IV/IO

*Reference #s 2020, 7010, 7020, 13020, 13030, 14040, 14050, 14060*

### **Diphenhydramine - Adult (ALS)**

Diphenhydramine, 25 mg IV/IO

Diphenhydramine, 50 mg IM

*Reference #s 6090, 6110, 7010, 7020, 11010, 13010*

### **Diphenhydramine - Pediatric (ALS)**

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, 14030*

**Dopamine - Adult (ALS)**

Dopamine, infusion of 400 mg in 250 ml of NS IV/IO, titrated between 5 - 20 mcg/kg/min to maintain signs of adequate tissue perfusion.

*Reference #s 7010, 7020, 8010, 8040, 10140, 11070, 11090, 14080*

**Dopamine - Pediatric (ALS)**

*Post resuscitation continued signs of inadequate tissue perfusion:*

9 to 14 years                      Dopamine, 400 mg in 250 ml of NS to infuse at 5 - 20 mcg/kg/min IV/IO titrated to maintain signs of adequate tissue perfusion.

*Reference #s 7010, 7020, 14040*

**Epinephrine (1:1000) - Adult (LALS, ALS)**

*Severe Bronchospasm, Asthma Attack, Pending Respiratory Failure, Anaphylactic Shock/Severe Allergic Reactions:*

Epinephrine, 0.3 mg IM

**Epinephrine (1:10,000) - Adult (ALS)**

*For Persistent severe anaphylactic shock:*

Epinephrine (1:10,000), 0.1 mg slow IVP/IO. May repeat every five (5) minutes as needed to total dosage of 0.5 mg.

*Cardiac Arrest, Asystole, PEA:*

Epinephrine, 1 mg IV/IO

*Reference #s 2020, 6090, 6110, 7010, 7020, 11010, 11070, 12020*

**Epinephrine (1:1000) - Pediatric (LALS, ALS)**

*Severe Bronchospasm, Asthma Attack, Pending Respiratory Failure, Anaphylactic Shock/Severe Allergic Reactions:*

Epinephrine, 0.01 mg/kg IM not to exceed adult dosage of 0.3 mg.

*Reference #s 2020, 6090, 7010, 7020, 11010, 14010, 14030*

**Epinephrine (1:10,000) - Pediatric (ALS)**

*Anaphylactic Shock (no palpable radial pulse and depressed level of consciousness):*

Epinephrine (1:10,000), 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 (1:10,000), 0.01 mg/kg IV/IO (do not exceed adult dosage)

9 to 14 years      Epinephrine (1:10,000), 1.0 mg IV/IO

*Newborn Care:*

Epinephrine (1: 10,000), 0.01mg/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 (1:10,000), 0.005 mg/kg IV/IO every ten (10) minutes for persistent hypotension as a base hospital order or in radio communication failure.

*Post resuscitation continued signs of inadequate tissue perfusion:*

1 day to 8 years      Epinephrine (1:10,000), 0.5 mcg/kg/min IV/IO drip

*Reference #s 2020, 7010, 7020, 14030, 14040, 14090*

**Fentanyl - Adult (ALS)**

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 ten (10) minutes titrated to pain, not to exceed 200 mcg.

*Isolated Extremity Trauma, Burns:*

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 ten (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 ten (10) minutes titrated to pain, not to exceed 200 mcg.

*Reference #s 2020, 6090, 6110, 7010, 7020, 7030, 11060, 11100, 13030, 15010*

**Fentanyl - Pediatric (ALS)**

Fentanyl, 0.5 mcg/kg slow IV/IO over one (1) minute. May repeat in five minutes titrated to pain, not to exceed 100 mcg.

Fentanyl, 1 mcg/kg IM/IN, may repeat every ten (10) minutes titrated to pain not to exceed 200 mcg.

*Reference #s 2020, ~~6090~~, 6110, 7010, 7020, 7030, 9120, ~~10110~~ ~~10120~~, 11060, ~~11100~~, 13030, 14070, ~~15010~~, 15020*

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

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

*Reference #s 7010, 7020, 11080, 11090, 11110, 13020*

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

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

*Reference #s 7010, 7020, 14050, 14060*

**Glucagon - Adult (LALS, ALS)**

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

*Betablocker Poisoning:*

Glucagon, 1 mg IV/IO (base hospital order only)

*Reference #s 6090, 6110, 7010, 7020, 11080, 13010, 13030*

**Glucagon - Pediatric (LALS, ALS)**

Glucagon, 0.025 mg/kg IM/IN, if unable to start an IV. May be repeated one (1) time after twenty (20) minutes for a combined maximum dose of 1 mg.

*Reference #s 7010, 7020, 13030, 14050, 14060*

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

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

*Reference #s 7010, 7020, 11010, 11100*

**Ipratropium Bromide Metered-Dose Inhaler (MDI) (Atrovent) - Specialty Programs Only Adult (ALS) use with Albuterol**

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

*Reference #s 6090, 6110, 7010, 7020*

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

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

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

*Reference #s 7010, 7020, 14010, 14030, 14070*

**Lidocaine - Adult (ALS)**

*Intubation, King Airway, NG/OG, for suspected increased intracranial pressure (ICP):*

Lidocaine, 1.5 mg/kg IV/IO

*VT/VF:*

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

May administer an additional 0.75 mg/kg IV/IO, repeat once in five (5) to ten (10) minutes for refractory VF.

*VT/VF Infusion:*

Lidocaine, 2 mg/min IV/IO drip

*V-Tach, Wide Complex Tachycardia – with Pulses:*

Lidocaine, 1.5 mg/kg slow IV/IO

May administer an additional 0.75 mg/kg IV/IO, repeat once in five (5) to ten (10) minutes for refractory VF

Initiate infusion of Lidocaine 2 mg/min IV/IO drip.

*Reference #s 2020, 6090, 7010, 7020, 8010, 8040, 10030, 10080, 11050, 11070, 15010*

**Lidocaine - Pediatric (ALS)**

*Intubation, King Airway, NG/OG, for suspected increased intracranial pressure (ICP):*

Lidocaine, 1.5 mg/kg IV/IO

*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 up to total of 3.0 mg/kg.

*Reference #s 2020, 7010, 7020, 14040*

**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 2020, 7010, 7020, 10140*

**Magnesium Sulfate (ALS)***Polymorphic Ventricular Tachycardia:*

Magnesium Sulfate, 2 gm in 100 ml of NS IV/IO 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 diluted with 20 ml NS, IV/IO slow IV push over three (3) to four (4) minutes.

Magnesium Sulfate, 2 gm in 100 cc of NS at 30 cc per hour IV/IO to prevent continued seizures.

*Reference #s 2020, 7010, 7020, 8010, 14080*

**Midazolam - Adult (ALS)***Seizure:*

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

Midazolam, 5 mg IM. May repeat in ten (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 IM/IN/IV/IO may be administered for continued seizure activity. Contact base hospital for additional orders and to discuss further treatment options.

*Pacing, synchronized cardioversion:*

Midazolam, 2 mg slow IV/IO push or IN

*Reference #s 6090, 6110, 7010, 7020, 10110, 10120, 11080, 13020, 14080*

### **Midazolam - 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 ten (10) minutes for continued seizure. IN dosage of Midazolam is doubled due to decreased surface area of nasal mucosa resulting in decreased absorption of medication.

Assess patient for medication related reduced respiratory rate or hypotension.

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

*Reference #s 7010, 7020, 14060*

### **~~Morphine - Adult (ALS)~~**

~~Morphine, 2 mg IV/IO. May repeat in 2 mg increments every three (3) minutes, not to exceed 10 mg IV/IO.~~

~~*Isolated Extremity Trauma, Burns:*~~

~~Morphine, 5 mg IV/IO. May repeat every five (5) minutes to a maximum of 20 mg for adequate tissue perfusion, **or**~~

~~Morphine, 10 mg IM.~~

~~*Pacing, synchronized cardioversion:*~~

~~Morphine, 2 mg IV/IO. May repeat in 2 mg increments every three (3) minutes, titrated to pain, not to exceed 10 mg IV/IO.~~

~~*Reference #s 2020, 6090, 6110, 7010, 7020, 7030, 9120, 10110, 10120, 11060, 11100, 13030, 15010*~~

### **~~Morphine - Pediatric (ALS)~~**

~~Morphine, 0.1 mg/kg IV/IO not to exceed 2 mg increments, for a total of 5 mg, **or**~~

~~Morphine, 0.2 mg/kg IM for a total of 10 mg IM, titrated for pain relief~~

*Burns:*

~~Morphine, 0.1 mg/kg IV/IO not to exceed 5 mg increments, for a total of 20 mg, or~~

~~Morphine, 0.2 mg/kg IM for a total of 10 mg IM, titrated for pain relief~~

~~Reference #s 2020, 7010, 7020, 7030, 14070, 15020~~

**Naloxone (Narcan) - Adult (LALS, ALS)**

*Resolution of respiratory depression related to suspected narcotic 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.

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

*Reference #s 6110, 7010, 7020, 11070, 11080*

**Naloxone (Narcan) - Pediatric (LALS, ALS)**

*Resolution of respiratory depression related to suspected narcotic overdose:*

1 day to 8 years      Naloxone, 0.1 mg/kg IV/IO

9 to 14 years      Naloxone, 0.5 mg IV/IO

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

*Reference #s 7010, 7020, 14040, 14050*

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

*Reference #s 6090, 6110, 7010, 7020, 11010, 11060*

**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 and may repeat twice, at ten (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 6110, 7010, 7020, 9120, 10100, 15010, 15020*

**Phenylephrine HCL (ALS)**

Phenylephrine, 0.5 mg metered dose may be repeated once prior to additional attempt

*Reference #s 7010, 7020, 10050*

**Procainamide (ALS)***SVT, V-Tach or Wide Complex Tachycardias:*

Procainamide, 20 mg/min IV/IO; may repeat until arrhythmia suppressed, symptomatic hypotension, QRS widens by more than 50% or maximum dose of 17 mg/kg administered. If arrhythmia suppressed, begin infusion of 2 mg/min.

*Reference #s 7010, 7020, 8010, 8040, 11050*

**Sodium Bicarbonate (ALS)***Tricyclic Poisoning:*

Sodium Bicarbonate, 1 mEq/kg IV/IO

*Reference #s 2020, 7010, 7020, 13010*

**Verapamil (ALS)***SVT if adenosine is ineffective:*

Verapamil, 5 mg slow IV/IO over three (3) minutes, may repeat every fifteen (15) minutes to a total dose of 20 mg.

*Reference #s 7010, 7020, 11050*



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## SUSPECTED ACUTE MYOCARDIAL INFARCTION (AMI)

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### I. FIELD ASSESSMENT/TREATMENT INDICATORS

- Chest pain (typical or atypical).
- Syncopal episode.
- History of previous AMI, Angina, heart disease, or other associated risk factors.

### II. BLS INTERVENTIONS

- Recognition of signs/symptoms of suspected AMI.
- Reduce anxiety, allow patient to assume position of comfort.
- Oxygen as clinically indicated.
- Obtain O<sub>2</sub> saturation.
- May assist patient with self-administration of Nitroglycerin and/or Aspirin.

### III. LIMITED ALS (LALS) INTERVENTIONS

- Aspirin per ICEMA Reference #7040 - Medication - Standard Orders.
- Consider early vascular access.
- For patients with chest pain, signs of inadequate tissue perfusion and clear breath sounds, administer 300 ml NS bolus, may repeat.
- Nitroglycerin per ICEMA Reference #7040 - Medication - Standard Orders.
- Consider establishing a saline lock enroute on same side as initial IV.
- Complete thrombolytic checklist, if time permits.
- Contact base hospital.

#### IV. ALS INTERVENTIONS

- Aspirin per ICEMA Reference #7040 - Medication - Standard Orders.
- Consider early vascular access.
- For patients with chest pain, signs of inadequate tissue perfusion and clear breath sounds, administer 300 ml NS bolus, may repeat.
- 12-Lead Technology:
  - Obtain 12-lead ECG. Do not disconnect 12-lead cables until necessary for transport.
  - If signs of inadequate tissue perfusion or if inferior wall infarct is suspected, obtain a right-sided 12-lead (V4R).
  - If right ventricular infarct (RVI) is suspected with signs of inadequate tissue perfusion, consider 300 ml NS bolus, may repeat. Early consultation with base hospital or receiving hospital in rural areas is recommended. (Nitrates are contraindicated in the presence of RVI or hypotension.)
  - With documented ST segment elevation in two (2) or more contiguous leads, contact STEMI base hospital for destination decision while preparing patient for expeditious transport, refer to ICEMA Reference #6070 - Cardiovascular “STEMI” Receiving Centers. In Inyo and Mono Counties, the assigned base hospital should be contacted for STEMI consultation.
  - Repeat 12-lead at regular intervals, but do not delay transport of patient. If patient is placed on a different cardiac monitor for transport, transporting provider should obtain an initial 12-lead on their cardiac monitor and leave 12-lead cables in place throughout transport.
  - EMS field personnel shall ensure that a copy of the 12-lead ECG is scanned or attached as a permanent part of the patient’s ePCR or OIA and submit to ICEMA if patient is going to a SRC as a suspected STEMI.
- Nitroglycerin per ICEMA Reference #7040 - Medication - Standard Orders. Utilize ~~Morphine~~ or Fentanyl for pain control when Nitroglycerin is contraindicated.

- ~~Morphine or~~Fentanyl per ICEMA Reference #7040 - Medication - Standard Orders. Consider concurrent administration of Nitroglycerin with ~~Morphine or~~Fentanyl if there is no pain relief from the initial Nitroglycerin administration. Contact base hospital for further ~~Morphine or~~Fentanyl orders.
- Consider establishing a saline lock as a secondary IV site.
- Make early STEMI notification to the STEMI Receiving Center.
- In Radio Communication Failure (RCF), may administer up to an additional ~~10 mg Morphine in 2 mg increments with signs of adequate tissue perfusion or administer an additional~~100 mcg of Fentanyl in 50 mcg increments with signs of adequate tissue perfusion.

V. REFERENCES

<u>Number</u>	<u>Name</u>
6070	Cardiovascular “STEMI” Receiving Centers
7040	Medication - Standard Orders



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## BURNS - ADULT (15 years of age and older)

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Burn patient requires effective communication and rapid transportation to the closest receiving hospital.

In Inyo and Mono Counties, the assigned base hospital should be contacted for determination of appropriate destination.

### I. **FIELD ASSESSMENT/TREATMENT INDICATORS**

Refer to ICEMA Reference #8130 - Destination Policy.

### II. **BLS INTERVENTIONS**

- Break contact with causative agent (stop the burning process).
- Remove clothing and jewelry quickly, if indicated.
- Keep patient warm.
- Estimate % TBSA burned and depth using the “Rule of Nines”.
  - An individual’s palm represents 1% of TBSA and can be used to estimate scattered, irregular burns.
- Transport to ALS intercept or to the closest receiving hospital.

#### A. **Manage Special Considerations**

- **Thermal Burns:** Stop the burning process. Do not break blisters. Cover the affected body surface with dry, sterile dressing or sheet.
- **Chemical Burns:** Brush off dry powder, if present. Remove any contaminated or wet clothing. Irrigate with copious amounts of saline or water.
- **Tar Burns:** Cool with water, do not remove tar.
- **Electrical Burns:** Remove from electrical source (without endangering self) with a nonconductive material. Cover the affected body surface with dry, sterile dressing or sheet.

- **Eye Involvement:** Continuous flushing with NS during transport. Allow patient to remove contact lenses if possible.
- **Determination of Death on Scene:** Refer to ICEMA Reference #12010 - Determination of Death On Scene.

### III. LIMITED ALS (LALS) INTERVENTIONS

- Advanced airway as indicated.
- King Airway contraindicated in airway burns.
- Airway Stabilization:

Burn patients with respiratory compromise or potential for such, will be transported to the closest most appropriate receiving hospital for airway stabilization.

- IV access (warm IV fluids when available).
  - *Unstable:* BP <90mmHG and/or signs of inadequate tissue perfusion, start 2<sup>nd</sup> IV access.  
*IV NS 250 ml boluses, may repeat to a maximum of 1000 ml.*
  - *Stable:* BP >90mmHG and/or signs of adequate tissue perfusion.  
*IV NS 500 ml/hour.*
  - Transport to appropriate facility.
    - *Minor Burn Classification:* Transport to the closest most appropriate receiving hospital.
    - *Moderate Burn Classification:* Transport to the closest most appropriate receiving hospital.
    - *Major Burn Classification:* Transport to the closest most appropriate Burn Center (San Bernardino County contact ARMC).
    - *Critical Trauma Patient (CTP) with Associated Burns:* Transport to the most appropriate Trauma Center.
- Burn patients with associated trauma, should be transported to the closest Trauma Center. Trauma base hospital contacted shall be made.

A. **Manage Special Considerations**

- **Electrical Burns:** Place AED on patient.
  - Electrical injuries that result in cardiac arrest shall be treated as medical arrests.
- **Respiratory Distress:** Use BVM as needed and transport to the nearest facility for airway control. Contact receiving hospital ASAP. Nebulized Albuterol with Atrovent per ICEMA Reference #7040 - Medication - Standard Orders.
- **Deteriorating Vital Signs:** Transport to the closest most appropriate receiving hospital. Contact base hospital.
- **Pulseness and Apneic:** Transport to the closest most appropriate receiving hospital and treat according to ICEMA policies. Contact base hospital.
- **Determination of Death on Scene:** Refer to ICEMA Reference #12010 - Determination of Death on Scene.
- **Precautions and Comments:**
  - High flow oxygen is essential with known or potential respiratory injury. Beware of possible smoke inhalation.
  - Contact with appropriate advisory agency may be necessary for hazardous materials, before decontamination or patient contact.
  - Do not apply ice or ice water directly to skin surfaces, as additional injury will result.
- **Base Hospital Orders:** May order additional fluid boluses.

IV. **ALS INTERVENTIONS**

- Advanced airway (as indicated).
- Airway Stabilization:

Burn patients with respiratory compromise or potential for such, will be transported to the closest most appropriate receiving hospital for airway stabilization.

- Monitor ECG.
- IV/IO Access (Warm IV fluids when available).
  - *Unstable:* BP <90mmHG and/or signs of inadequate tissue perfusion, start 2<sup>nd</sup> IV access.  
  
*IV/IO NS* 250 ml boluses, may repeat to a maximum of 1000 ml.
  - *Stable:* BP >90mmHG and/or signs of adequate tissue perfusion.  
  
*IV/IO NS* 500 ml/hour.
- Treat pain as indicated.

**Pain Relief:** ~~Morphine~~ or Fentanyl per ICEMA Reference #7040 - Medication - Standard Orders. Document BPs and pain scale every five (5) minutes while medicating for pain and reassess the patient.

- Transport to appropriate facility:
  - *CTP with associated burns*, transport to the closest Trauma Center.
  - Burn patients with associated trauma, should be transported to the closest Trauma Center. Trauma base hospital contacted shall be made.
- Insert nasogastric/orogastric tube as indicated.
- Refer to Section V - Burn Classifications below.

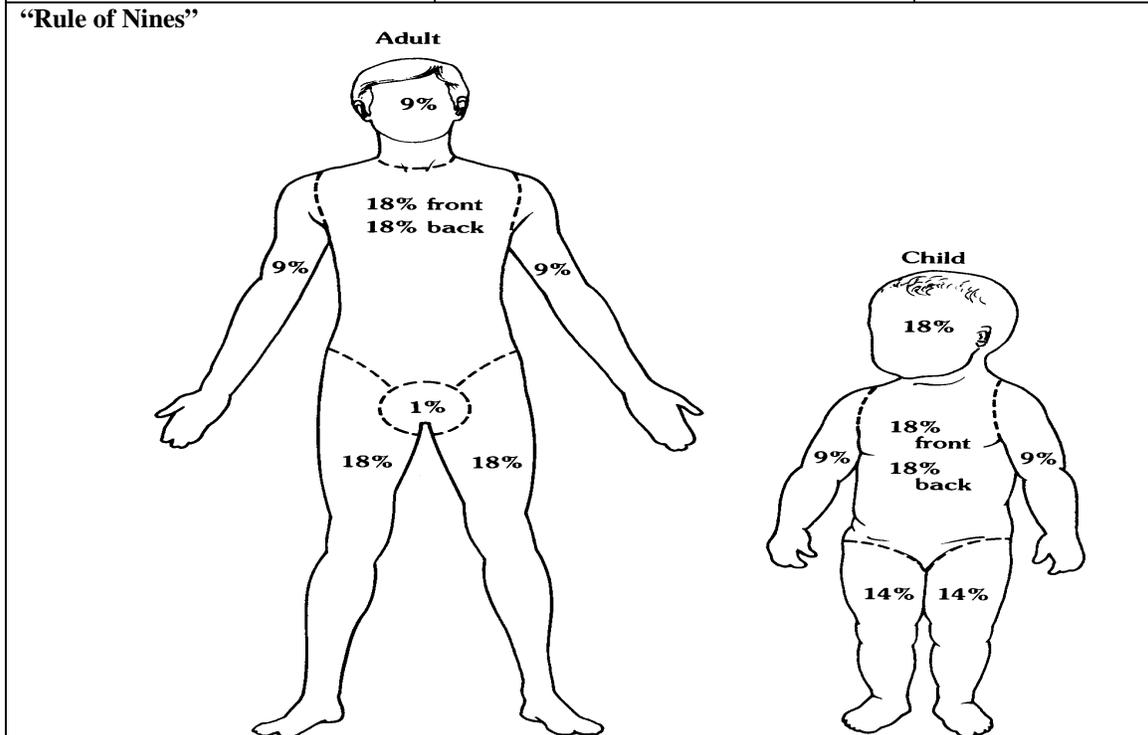
**A. Manage Special Considerations**

- **Electrical Burns:** Monitor for dysrhythmias, treat according to ICEMA protocols.
  - Electrical injuries that result in cardiac arrest shall be treated as medical arrests.
- **Respiratory Distress:** Intubate patient if facial/oral swelling are present or if respiratory depression or distress develops due to inhalation injury.
  - Albuterol with Atrovent per ICEMA Reference #7040 - Medication - Standard Orders.
  - Administer humidified oxygen, if available.

- Apply capnography.
- Awake and breathing patients with potential for facial/inhalation burns are not candidates for nasal tracheal intubation. CPAP may be considered, if indicated, after consultation with base hospital.
- **Deteriorating Vital Signs:** Transport to the closest receiving hospital. Contact base hospital.
- **Pulseness and Apneic:** Transport to the closest receiving hospital and treat according to ICEMA policies. Contact base hospital.
- **Determination of Death on Scene:** Refer to ICEMA Reference #12010 - Determination of Death on Scene.
- **Precautions and Comments:**
  - Contact with appropriate advisory agency may be necessary for hazardous materials, before decontamination or patient contact.
  - Do not apply ice or ice water directly to skin surfaces, as additional injury will result.
- **Base Hospital Orders:** May order additional medications, fluid boluses and CPAP.

**V. BURN CLASSIFICATIONS**

ADULT BURN CLASSIFICATION CHART	DESTINATION	
<p><b><u>MINOR</u> - ADULT</b></p> <ul style="list-style-type: none"> <li>• &lt; 10% TBSA</li> <li>• &lt; 2% Full Thickness</li> </ul>	<p><b>CLOSEST MOST APPROPRIATE RECEIVING HOSPITAL</b></p>	
<p><b><u>MODERATE</u> - ADULT</b></p> <ul style="list-style-type: none"> <li>• 10 - 20% TBSA</li> <li>• 2 - 5% Full Thickness</li> <li>• High Voltage Injury</li> <li>• Suspected Inhalation Injury</li> <li>• Circumferential Burn</li> <li>• Medical problem predisposing to infection (e.g., diabetes mellitus, sickle cell disease)</li> </ul>	<p><b>CLOSEST MOST APPROPRIATE RECEIVING HOSPITAL</b></p>	
<p><b><u>MAJOR</u> - ADULT</b></p> <ul style="list-style-type: none"> <li>• &gt;20% TBSA burn in adults</li> <li>• &gt; 5% Full Thickness</li> <li>• High Voltage Burn</li> <li>• Known Inhalation Injury</li> <li>• Any significant burn to face, eyes, ears, genitalia, or joints</li> </ul>	<p><b>CLOSEST MOST APPROPRIATE BURN CENTER</b></p> <p>In San Bernardino County, contact: Arrowhead Regional Medical Center (ARMC)</p>	



**VI. REFERENCES**

<u>Number</u>	<u>Name</u>
7040	Medication - Standard Orders
9010	General Patient Care Guidelines
10190	ICEMA Approved Skills
11070	Adult Cardiac Arrest
12010	Determination of Death on Scene
15030	Trauma Triage Criteria and Destination Policy



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## COLD RELATED EMERGENCIES

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### I. FIELD ASSESSMENT/TREATMENT INDICATORS

#### MILD HYPOTHERMIA

- Decreased core temperature.
- Cold, pale extremities.
- Shivering, reduction in fine motor skills.
- Loss of judgment and/or altered level of consciousness or simple problem solving skills.

#### SEVERE HYPOTHERMIA

- Severe cold exposure or any prolonged exposure to ambient temperatures below 36 degrees with the following indications:
  - Altered LOC with associated behavior changes.
  - Unconscious.
  - Lethargic.
- Shivering is generally absent.
- Blood pressure and heart sounds may be unobtainable.

#### SUSPECTED FROSTBITE

- Areas of skin that is cold, white, and hard to touch.
- Capillary refill greater than two (2) seconds.
- Pain and/or numbness to affected extremity.

### II. BLS INTERVENTIONS

- Remove from cold/wet environment; remove wet clothing and dry patient.
- Begin passive warming.

- Insulate and apply wrapped heat packs, if available, to groin, axilla and neck. This process should be continuous.
- Maintain appropriate airway with oxygen as clinically indicated (warm, humidified if possible).
- Assess carotid pulse for a minimum of one (1) to two (2) minutes. If no pulse palpable, place patient on AED. If no shock advised, begin CPR.
- Insulate to prevent further heat loss.
- Elevate extremity if frostbite is suspected.
- Do not massage affected extremity.
- Wrap affected body part in dry sterile gauze to prevent further exposure and handle with extreme care.

### III. LIMITED ALS INTERVENTIONS

- Advanced airway as clinically indicated.
- Obtain vascular access.
- Obtain blood glucose level, if indicated administer:
  - ADULT/PEDIATRIC
    - Dextrose per ICEMA Reference #7040 - Medication - Standard Orders.
    - May repeat blood glucose level. Repeat Dextrose per ICEMA Reference #7040 - Medication - Standard Orders.
    - Glucagon per ICEMA Reference #7040 - Medication - Standard Orders if unable to establish IV.
- Obtain vascular access and administer fluid bolus.
  - Nine (9) years and older: 300 ml warmed NS, may repeat.
  - Birth to eight (8) years: 20 ml/kg warmed NS, may repeat.
- Contact base hospital.

### IV. ALS INTERVENTIONS

- Obtain vascular access.

- Cardiac monitor.
- If clinically indicated, obtain blood glucose. If hypoglycemic administer:
  - ADULT/PEDIATRIC
    - Dextrose per ICEMA Reference #7040 - Medication - Standard Orders.
    - Glucagon per ICEMA Reference #7040 - Medication - Standard Orders, if unable to establish IV.
- For complaints of pain in affected body part:
  - ADULT/PEDIATRIC
    - ~~Morphine~~ or Fentanyl per ICEMA Reference #7040 - Medication - Standard Orders.
- In Radio Communication Failure, may repeat above dosage of Fentanyl.
- Advanced airway as clinically indicated.
- Obtain vascular access and administer fluid bolus.
  - Nine (9) years and older: 500 ml warmed NS, may repeat.
  - Birth to eight (8) years: 20 ml/kg warmed NS, may repeat.
- Obtain rhythm strip for documentation.
- For documented VF, Pulseless V-Tach:
  - Defibrillate one (1) time at manufacturer recommended dose. Do not defibrillate again until patient has begun to warm.
- For documented asystole:
  - Begin CPR.
  - May give additional fluid bolus.
- Contact base hospital.

## V. REFERENCE

<u>Number</u>	<u>Name</u>
7040	Medication - Standard Orders



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## BURNS - PEDIATRIC (Less Than 15 Years of Age)

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Any burn patient requires effective communication and rapid transportation to the closest receiving hospital.

In Inyo and Mono Counties, the assigned base hospital should be contacted for determination of appropriate destination.

### I. FIELD ASSESSMENT/TREATMENT INDICATORS

Refer to ICEMA Reference #8130 - Destination Policy.

### II. BLS INTERVENTIONS

- Break contact with causative agent (stop the burning process).
- Remove clothing and jewelry quickly, if indicated.
- Keep patient warm.
- Estimate percentage of total body surface area (TBSA) burned and depth using the “Rule of Nines”. An individual’s palm represents 1% of TBSA and can be used to estimate scattered, irregular burns.
- Transport to ALS intercept or to the closest receiving hospital.

#### A. Manage Special Considerations

- **Thermal Burns:** Stop the burning process. Do not break blisters. Cover the affected body surface with dry, sterile dressing or sheet.
- **Chemical Burns:** Brush off dry powder, if present. Remove any contaminated or wet clothing. Irrigate with copious amounts of saline or water.
- **Tar Burns:** Cool with water, do not remove tar.
- **Electrical Burns:** Remove from electrical source (without endangering self) with a nonconductive material. Cover the affected body surface with dry, sterile dressing or sheet.

- **Eye Involvement:** Continuous flushing with NS during transport. Allow patient to remove contact lenses if possible.
- **Determination of Death on Scene:** Refer to ICEMA Reference #12010 - Determination of Death on Scene.

### III. LIMITED ALS (LALS) INTERVENTIONS

- Airway Stabilization (as indicated). Burn patients with respiratory compromise or potential for such, will be transported to the closest receiving hospital for airway stabilization.
- IV/IO Access (warm IV fluids when available).
  - *Unstable:* Vital signs (age appropriate) and/or signs of inadequate tissue perfusion consider starting a second IV or saline lock. Administer 20 ml/kg NS bolus IV/IO, may repeat one (1) time.
  - *Stable:* Vital signs (age appropriate) and/or signs of adequate tissue perfusion.
  - < 5 years of age: IV NS 150 ml/hour
  - > 5 years of age - < 15 years of age: IV NS 250 ml/hour
- Transport to appropriate facility:
  - Critical trauma patients with associated burns or burn patients sustaining critical trauma, should be transported to the closest Trauma Center. Trauma base hospital contacted shall be made.
- Refer to Section V - Burn Classifications below.

#### A. Manage Special Considerations

- **Respiratory Distress:**
  - Albuterol per ICEMA Reference #7040 - Medication - Standard Orders.
  - Administer humidified oxygen, if available.
- **Deteriorating Vital Signs:** Transport to the closest receiving hospital. Contact base hospital.

- **Pulseness and Apneic:** Transport to the closest receiving hospital and treat according to ICEMA protocols. Contact base hospital.
- **Determination of Death on Scene:** Refer to ICEMA Reference #12010 - Determination of Death on Scene.
- **Precautions and Comments:**
  - Contact with appropriate advisory agency may be necessary for hazardous materials, before decontamination or patient contact.
  - Do not apply ice or ice water directly to skin surfaces as additional injury will result.
  - Do not apply cool dressings or allow environmental exposure, since hypothermia will result in a young child.

#### IV. ALS INTERVENTIONS

- Advanced airway (as indicated).
  - **Airway Stabilization:** Burn patients with respiratory compromise or potential for such, will be transported to the closest receiving hospital for airway stabilization.
- Monitor ECG.
- IV/IO Access (Warm IV fluids when available).
  - *Unstable:* Vital signs (age appropriate) and/or signs of inadequate tissue perfusion consider starting a second IV or saline lock. Administer 20 ml/kg NS bolus IV/IO, may repeat one (1) time.
  - *Stable:* Vital signs (age appropriate) and/or signs of adequate tissue perfusion.
  - < 5 years of age: IV NS 150 ml/hour
  - > 5 years of age - < 15 years of age: IV NS 250 ml/hour
- Treat pain as indicated.
  - ~~Morphine or~~ Fentanyl per ICEMA Reference #7040 - Medication - Standard Orders.

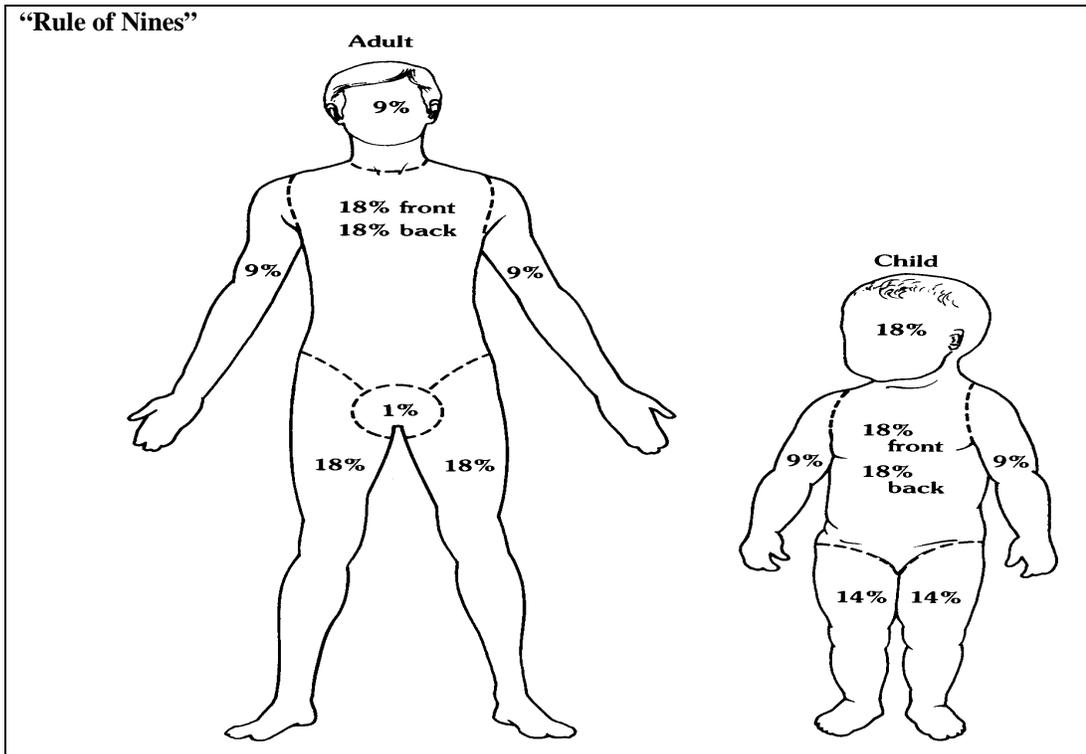
- Document vital signs every five (5) minutes while medicating for pain, and reassess the patient.
- Transport to appropriate facility:
  - Critical trauma patients with associated burns or burn patients sustaining critical trauma, should be transported to the closest Trauma Center. Trauma base hospital contacted shall be made.
  - Insert nasogastric/orogastric tube as indicated.
- Refer to Section V - Burn Classifications below.

**A. Manage Special Considerations**

- **Respiratory Distress:** Intubate patient if facial/oral swelling are present or if respiratory depression or distress develops due to inhalation injury.
  - Albuterol per ICEMA Reference #7040 - Medication - Standard Orders.
  - Administer humidified oxygen, if available.
- **Deteriorating Vital Signs:** Transport to the closest receiving hospital. Contact base hospital.
- **Pulseness and Apneic:** Transport to the closest receiving hospital and treat according to ICEMA protocols. Contact base hospital.
- **Determination of Death on Scene:** Refer to ICEMA Reference #12010 - Determination of Death on Scene.
- **Precautions and Comments:**
  - Contact with appropriate advisory agency may be necessary for hazardous materials, before decontamination or patient contact.
  - Do not apply ice or ice water directly to skin surfaces as additional injury will result.
  - Do not apply cool dressings or allow environmental exposure, since hypothermia will result in a young child.

V. BURN CLASSIFICATIONS

PEDIATRIC BURN CLASSIFICATION CHART	DESTINATION
<p><b>MINOR - PEDIATRIC</b></p> <ul style="list-style-type: none"> <li>• &lt; 5% TBSA</li> <li>• &lt; 2% Full Thickness</li> </ul>	<p><b>CLOSEST MOST APPROPRIATE RECEIVING HOSPITAL</b></p>
<p><b>MODERATE - PEDIATRIC</b></p> <ul style="list-style-type: none"> <li>• 5 - 10% TBSA</li> <li>• 2 - 5% Full Thickness</li> <li>• High Voltage Injury</li> <li>• Suspected Inhalation Injury</li> <li>• Circumferential Burn</li> <li>• Medical problem predisposing to infection (e.g., diabetes mellitus, sickle cell disease)</li> </ul>	<p><b>CLOSEST MOST APPROPRIATE RECEIVING HOSPITAL</b></p>
<p><b>MAJOR - PEDIATRIC</b></p> <ul style="list-style-type: none"> <li>• &gt; 10% TBSA</li> <li>• &gt; 5% Full Thickness</li> <li>• High Voltage Burn</li> <li>• Known Inhalation Injury</li> <li>• Any significant burn to face, eyes, ears, genitalia, or joints</li> </ul>	<p><b>CLOSEST MOST APPROPRIATE BURN CENTER</b></p> <p>In San Bernardino County, contact: Arrowhead Regional Medical Center (ARMC)</p>



**VI. REFERENCES**

<u>Number</u>	<u>Name</u>
7040	Medication - Standard Orders
8130	Destination Policy
12010	Determination of Death on Scene



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## TRAUMA - ADULT (15 years of age and older)

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Any critical trauma patient (CTP) requires effective communication and rapid transportation to the closest trauma center. If not contacted at scene, the receiving trauma center must be notified as soon as possible in order to activate the trauma team.

In Inyo and Mono Counties, the assigned base hospital should be contacted for determination of appropriate destination.

### I. FIELD ASSESSMENT/TREATMENT INDICATORS

Refer to ICEMA Reference #15030 - Trauma Triage Criteria and Destination Policy.

### II. BLS INTERVENTIONS

- Ensure thorough initial assessment.
- Ensure patent airway, protecting cervical spine.
- Oxygen and/or ventilate as needed, O<sub>2</sub> saturation (if BLS equipped).
- Keep patient warm.
- For a traumatic full arrest, an AED may be utilized, if indicated.
- Transport to ALS intercept or to the closest receiving hospital.

#### A. Manage Special Considerations

- **Axial Spinal Immobilization:** 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 axial immobilization 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 immobilization using long board.
- **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.
  - To control life-threatening bleeding of a severely injured extremity, consider application of tourniquet when direct pressure or pressure dressing fails.
- **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.
- **Pregnancy:** Where axial spinal stabilization precaution is indicated, the board should be elevated at least 4 inches on the right side for those patients who have a large pregnant uterus, usually applies to pregnant females  $\geq 24$  weeks of gestation.
- **Traumatic Arrest:** CPR if indicated. May utilize an AED if indicated.
- **Determination of Death on Scene:** Refer to ICEMA Reference #12010 - Determination of Death on Scene.

### III. LIMITED ALS (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.
- Apply AED.
- IV Access (warm IV fluids when available).
  - **Unstable:** BP<90mmHG and/or signs of inadequate perfusion, start 2<sup>nd</sup> IV access.
  - **Stable:** BP>90mmHG and/or signs of adequate tissue perfusion.

**Blunt Trauma:**

- *Unstable:* IV NS open until stable or 2000 ml maximum is infused.
- *Stable:* IV NS TKO

**Penetrating Trauma:**

- *Unstable:* IV NS 500 ml bolus one (1) time.
- *Stable:* IV NS TKO

**Isolated Closed Head Injury:**

- *Unstable:* IV NS 250 ml bolus, may repeat to a maximum of 500 ml.
- *Stable:* IV NS TKO

- Transport to appropriate hospital.

**A. Manage Special Considerations**

- **Axial Spinal Immobilization:** LALS personnel should remove axial spinal immobilization devices from patients placed in full axial spinal immobilization 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?

- Consider maintaining spinal alignment on the gurney, or using spinal axial immobilization 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 immobilization using long board.

- **Fractures:**

- **Isolated Extremity Trauma:** Trauma without multisystem mechanism. Extremity trauma is defined as those cases of injury where the limb itself and/or the appendicular skeleton (shoulder or pelvic girdle) may be injured, e.g., dislocated shoulder, hip fracture or dislocation.

- Administer IV NS 250 ml bolus one (1) time.
- **Impaled Object:** Remove object upon Trauma base hospital physician order, if indicated.
- **Traumatic Arrest:** Continue CPR as appropriate.
  - Apply AED and follow the voice prompts.
- B. Determination of Death on Scene:** Refer to ICEMA Reference #12010 - 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.
  - If the patient does not meet the “Obvious Death Criteria” in ICEMA Reference #12010 - 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.**
    - Whenever possible, consider minimal disturbance of a potential crime scene.

- **Base Hospital Orders:** May order additional fluid boluses.

#### IV. 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 perform a successful needle cricothyrotomy (if indicated), **then** transport to the closest receiving hospital and follow ICEMA Reference #8120 - Continuation of Care.
- Monitor ECG.
- IV/IO Access (Warm IV fluids when available).
  - *Unstable:* BP <90mmHG and/or signs of inadequate perfusion, start 2<sup>nd</sup> IV access.
  - *Stable:* BP >90mmHG and/or signs of adequate tissue perfusion.

#### **Blunt Trauma:**

- *Unstable:* IV NS open until stable or 2000 ml maximum is infused.
- *Stable:* IV NS TKO

#### **Penetrating Trauma:**

- *Unstable:* IV NS 500 ml bolus one (1) time.
- *Stable:* IV NS TKO

#### **Isolated Closed Head Injury:**

- *Unstable:* IV NS 250 ml bolus, may repeat to a maximum of 500 ml
- *Stable:* IV NS TKO
- Transport to appropriate hospital.
- Insert nasogastric/orogastric tube as indicated.

A. **Manage Special Considerations**

- **Axial Spinal Immobilization:** ALS personnel should remove axial spinal immobilization devices from patients placed in full axial spinal immobilization 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?

Distracting Injury?

- Consider maintaining spinal alignment on the gurney, or using spinal axial immobilization 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 immobilization using long board.
- **Chest Trauma:** Perform needle thoracostomy for chest trauma with symptomatic respiratory distress.
- **Fractures:**
  - **Isolated Extremity Trauma:** Trauma without multisystem mechanism. Extremity trauma is defined as those cases of injury where the limb itself and/or the appendicular skeleton (shoulder or pelvic girdle) may be injured, e.g., dislocated shoulder, hip fracture or dislocation.
  - **Pain Relief:**
    - Fentanyl per ICEMA Reference #7040 - Medication - Standard Orders.
    - Consider Ondansetron per ICEMA Reference #7040 - Medication - Standard Orders.
    - Patients in high altitudes should be hydrated with IV NS prior to IV pain relief to reduce the incidents of nausea, vomiting, and transient hypotension, which are side effects associated with administering IV ~~Morphine~~Fentanyl. Administer IV NS 250 ml bolus one (1) time.
- **Head and Neck Trauma:** Immediately prior to intubation, consider prophylactic Lidocaine per ICEMA Reference #7040 - Medication - Standard Orders.

- **Base Hospital Orders:** When considering Nasotracheal intubation ( $\geq$  15 years of age) and significant facial trauma, trauma to the face or nose and/or possible basilar skull fracture are present, Trauma base hospital contact is required.
- **Impaled Object:** Remove object upon Trauma base hospital physician order, if indicated.
- **Traumatic Arrest:** Continue CPR as appropriate.
  - Treat per ICEMA Reference #11070 - Cardiac Arrest - Adult.

**B. Determination of Death on Scene:** Refer to ICEMA Reference #12010 - 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 #12010 - 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.
- 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.
  - **Unsafe scene may warrant transport despite low potential for survival.**
  - Whenever possible, consider minimal disturbance of a potential crime scene.

- **Base Hospital Orders:** May order additional medications and/or fluid boluses.

## V. REFERENCES

<u>Number</u>	<u>Name</u>
7040	Medication - Standard Orders
8120	Continuation of Care
11070	Cardiac Arrest - Adult
12010	Determination of Death on Scene



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## TRAUMA - PEDIATRIC (Less than 15 years of age)

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Any critical trauma patient (CTP) requires effective communication and rapid transportation to the closest trauma center. If not contacted at scene, the receiving trauma center must be notified as soon as possible in order to activate the trauma team.

Inyo and Mono Counties do not have trauma center designations and the assigned base hospital should be contacted for determination of appropriate destination.

### I. FIELD ASSESSMENT/TREATMENT INDICATORS

Refer to ICEMA Reference #15030 - Trauma Triage Criteria and Destination Policy.

### II. BLS INTERVENTIONS

- Ensure thorough initial assessment.
- Ensure patient airway, protecting cervical spine.
- Oxygen and/or ventilate as needed, O<sub>2</sub> saturation (if BLS equipped).
- Keep patient warm and reassure.
- For a traumatic full arrest, an AED may be utilized, if indicated.
- Transport to ALS intercept or to the closest receiving hospital.

#### A. Manage Special Considerations

- **Axial Spinal Immobilization:** Using age appropriate assessments, 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 axial immobilization 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 immobilization using spine board.
- **Axial Spinal Immobilization with use of a Rigid Spine Board:** If the use of a rigid, spine board is indicated, and the level of the patient's head is greater than that of the torso, use approved pediatric spine board with a head drop or arrange padding on the board so that the ears line up with the shoulders and keep the entire lower spine and pelvis in line with the cervical spine and parallel to the board.
- **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.
- **Blunt 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 re-evaluate 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.
- **Traumatic Arrest:** CPR if indicated. May utilize an AED if indicated.
- **Determination of Death on Scene:** Refer to ICEMA Reference #12010 - Determination of Death on Scene.

### III. LIMITED ALS (LALS) INTERVENTIONS

- Advanced airway (as indicated).
  - **Unmanageable Airway:** Transport to the closest most appropriate receiving hospital when the patient requires an advance airway. An adequate airway cannot be maintained with a BVM device.
- Apply AED.
- IV Access (warm IV fluids when available).
  - **Unstable:** Vital signs (age appropriate) and/or signs of inadequate tissue perfusion, start 2<sup>nd</sup> IV access.

Administer 20ml/kg NS bolus IV. May repeat once.
  - **Stable:** Vital signs (age appropriate) and/or signs of adequate tissue perfusion.

Maintain IV NS rate at TKO.
- Transport to appropriate hospital. Pediatric patients identified as CTP will be transported to a pediatric trauma hospital when there is less than a 20 minute difference in transport time to the pediatric trauma hospital versus the closes trauma hospital.

A. **Manage Special Considerations**

- **Axial Spinal Immobilization:** LALS personnel should remove axial spinal immobilization devices from patients placed in full axial spinal immobilization precautions by first responders and BLS personnel if the patient does not meet any of the following indicators while considering age-appropriate assessments when 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 axial immobilization 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 immobilization using long board.
- **Axial Spinal Immobilization with use of a Rigid Spine Board:** If the use of a rigid, spine board is indicated, and the level of the patient's head is greater than that of the torso, use approved pediatric spine board with a head drop or arrange padding on the board so that the ears line up with the shoulders and keep the entire lower spine and pelvis in line with the cervical spine and parallel to the board.
  - **Fractures**
    - **Isolated Extremity Trauma:** Trauma without multisystem mechanism. Extremity trauma is defined as those cases of injury where the limb itself and/or the appendicular skeleton (shoulder or pelvic girdle) may be injured, e.g., dislocated shoulder, hip fracture or dislocation.
    - Administer IV NS 250 ml bolus one (1) time.
  - **Impaled Object:** Remove object upon trauma base hospital physician order, if indicated.
  - **Traumatic Arrest:** Continue CPR as appropriate.
    - Apply AED and follow the instructions.

- **Determination of Death on Scene:** Refer to ICEMA Reference #12010 - 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.
- If the patient does not meet the “Obvious Death Criteria” in ICEMA Reference #12010 - 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.
  - Confirm low blood sugar in children and treat as indicated with altered level of consciousness.
  - Suspect child maltreatment when physical findings are inconsistent with the history. Remember reporting requirements for suspected child maltreatment.
  - **Unsafe scene may warrant transport despite low potential for survival.**
  - Whenever possible, consider minimal disturbance of a potential crime scene.
- **Base Hospital Orders:** May order additional fluid boluses.

#### IV. 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 perform a successful needle cricothyrotomy (if indicated), **then**

transport to the closest receiving hospital and follow ICEMA Reference #8100 - Continuation of Trauma Care.

- Monitor ECG.
- IV/IO Access (Warm IV fluids when available).
  - *Unstable:* Vital signs (age appropriate) and/or signs of inadequate tissue perfusion, start 2<sup>nd</sup> IV access.  
  
Administer 20ml/kg NS bolus IV/IO, may repeat once.
  - *Stable:* Vital signs (age appropriate) and/or signs of adequate tissue perfusion.  
  
Maintain IV NS rate at TKO.
- Transport to Trauma Center: Pediatric patients identified as CTP will be transported to a pediatric trauma hospital when there is less than a 20 minute difference in transport time to the pediatric trauma hospital versus the closest trauma hospital.
- Insert nasogastric/orogastric tube as indicated

**A. Manage Special Considerations**

- **Axial Spinal Immobilization:** ALS personnel should remove axial spinal immobilization devices from patients placed in full axial spinal immobilization precautions by first responders and BLS personnel if the patient does not meet any of the following indicators while considering age-appropriate assessments when 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 axial immobilization 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 immobilization using long board.

- **Axial Spinal Immobilization with use of a Rigid Spine Board:** If the use of a rigid, spine board is indicated, and the level of the patient's head is greater than that of the torso, use approved pediatric spine board with a head drop or arrange padding on the board so that the ears line up with the shoulders and keep the entire lower spine and pelvis in line with the cervical spine and parallel to the board.
- **Blunt Chest Trauma:** Perform needle thoracostomy for chest trauma with symptomatic respiratory distress.
- **Fractures**
  - **Isolated Extremity Trauma:** Trauma without multisystem mechanism. Extremity trauma is defined as those cases of injury where the limb itself and/or the appendicular skeleton (shoulder or pelvic girdle) may be injured - e.g. dislocated shoulder, hip fracture or dislocation.
  - **Pain Relief:**
    - ~~Morphine~~ or Fentanyl per ICEMA Reference #7040 - Medication - Standard Orders.
    - For patients four (4) years old and older, consider Ondansetron per ICEMA Reference #7040 - Medication - Standard Orders.
    - Patients in high altitudes should be hydrated with IV NS prior to IV pain relief to reduce the incidents of nausea, vomiting, and transient hypotension, which are side effects associated with administering IV ~~Morphine~~Fentanyl. Administer 20ml/kg NS bolus IV/IO one time.
- **Head and Neck Trauma:** Immediately prior to intubation, consider prophylactic Lidocaine per ICEMA Reference #7040 - Medication - Standard Orders for suspected head/brain injury.
- **Base Hospital Orders:** When considering Nasotracheal intubation ( $\geq 15$  years of age) and significant facial trauma, trauma to the face or nose and/or possible basilar skull fracture are present, Trauma base hospital contact is required.
- **Impaled Object:** Remove object upon Trauma base hospital physician order, if indicated.
- **Traumatic Arrest:** Continue CPR as appropriate.
  - Treat per ICEMA Reference #14040 - Cardiac Arrest - Pediatric.

- **Determination of Death on Scene:** Refer to ICEMA Reference #12010 - 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.
- If the patient does not meet the “Obvious Death Criteria” in ICEMA Reference #12010 - 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.
- 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.
  - Confirm low blood sugar in children and treat as indicated with altered level of consciousness.
  - Suspect child maltreatment when physical findings are inconsistent with the history. Remember reporting requirements for suspected child maltreatment.
  - **Unsafe scene may warrant transport despite low potential for survival.**
  - Whenever possible, consider minimal disturbance of a potential crime scene.
- **Base Hospital Orders:** May order additional medications and/or fluid boluses.

**V. REFERENCES**

<u>Number</u>	<u>Name</u>
7040	Medication - Standard Orders
12010	Determination of Death on Scene
14040	Cardiac Arrest - Pediatric
15030	Trauma Triage Criteria and Destination Policy