Inland Counties Emergency Medical Agency

1425 South D Street, 2nd Floor ▪ San Bernardino, CA 92415-0060 ▪ (909) 388-5823 ▪ Fax (909) 388-5825 ▪ www.icema.net

Serving San Bernardino, Inyo, and Mono Counties
Tom Lynch, EMS Administrator
Reza Vaezazizi, MD, Medical Director

DATE: November 17, 2017

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: **30-DAY NOTIFICATION FOR PUBLIC COMMENT**

Public comment for the policies/protocols listed below will occur at the next Medical Advisory Committee meeting on December 19, 2017, 1:00 pm, at the ICEMA office. Please review and bring suggestions for modification to the meeting.

<u>ICEMA Reference Number and Name</u>

6040	AED Service Provider - Lay Rescuer (DELETE)
7010	BLS/LALS/ALS Standard Drug and Equipment List
7020	EMS Aircraft Standard Drug and Equipment List
7040	Medication - Standard Orders
8050	Transport of Patients (BLS)
10190	Procedure - Standard Orders
11010	Respiratory Emergencies - Adult
11080	Altered Level of Consciousness/Seizures - Adult
13010	Poisonings
13040	Nerve Agent Antidote Kit - (Training, Storage and Administration) (NEW)
14010	Respiratory Emergencies - Pediatric
14020	Airway Obstruction - Pediatric
14040	Cardiac Arrest - Pediatric
14050	Altered Level of Consciousness - Pediatric
14060	Seizure - Pediatric
14070	Burns - Pediatric
14090	Newborn Care

BOARD OF DIRECTORS

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16010	Allergic Reaction and Anaphylaxis (Authorized Public Safety Personnel) (NEW)
16020	Nerve Agent Exposure (Authorized Public Safety Personnel) (NEW)
16030	Opioid Overdose (Authorized Public Safety Personnel) (NEW)
16040	Respiratory Distress (Authorized Public Safety Personnel) (NEW)

TL/RV/jlm

Enclosures

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30-DAY NOTIFICATION FOR PUBLIC COMMENT
NOVEMBER 17, 2017

Reference #	Name	Changes
NEW		
13040	Nerve Agent Antidote Kit - (Training, Storage and Administration)	New policy for the training, storage and use of nerve agent antidote kits - DuoDote/Mark I for those agencies carrying them and for use when ChemPack is deployed.
16010	Allergic Reaction and Anaphylaxis (Authorized Public Safety Personnel)	New protocol for the administration of epinephrine related to anaphylaxis for public safety personnel.
16020	Nerve Agent Exposure (Authorized Public Safety Personnel)	New protocol for the administration of Atropine/2 Pam using Mark I and/or DuoDote auto-injectors for nerve agent and organophosphate exposure for public safety personnel.
16030	Opioid Overdose (Authorized Public Safety Personnel)	New protocol to administer Naloxone nasal spray for public safety personnel.
16040	Respiratory Distress (Authorized Public Safety Personnel)	New protocol for the administration of oxygen using BVM, nasal cannula and non-rebreather mask for public safety personnel.
1000 ACCREDITATION AND CERTIFICATION		
None		
2000 DATA COLLECTION		
None		
3000 EDUCATION		
None		
4000 QUALITY IMPROVEMENT		
None		
5000 MISCELLANEOUS SYSTEM POLICIES		
None		
6000 SPECIALTY PROGRAM/ PROVIDER POLICIES		
None		
7000 STANDARD DRUG & EQUIPMENT LISTS		
7010	BLS/LALS/ALS Standard Drug and Equipment List	Addition of HemCon as an approved Hemostatic Dressing, limitation of automatic ventilators to specialty programs only.
7020	EMS Aircraft Standard Drug and Equipment List	Addition of HemCon as an approved Hemostatic Dressing, limitation of automatic ventilators to specialty programs only.
7040	Medication - Standard Orders	Verbiage changes for clarity, clarity for use of lidocaine in VT and refractory VT, addition of EPI and Naloxone for EMTs.

30-DAY NOTIFICATION FOR PUBLIC COMMENT
NOVEMBER 17, 2017

Reference #	Name	Changes
8000 TRANSPORT/TRANSFERS AND DESTINATION POLICIES		
8050	Transport of Patients (BLS)	Verbiage changes to comply with State regulations.
9000 GENERAL PATIENT CARE POLICIES		
None		
10000 SKILLS		
10190	Procedure - Standard Orders	Addition of Blood Glucose Check; clarification of Nasotracheal Intubation - Adult, addition of Broselow length based tape criteria.
11000 ADULT EMERGENCIES		
11010	Respiratory Emergencies - Adult	Addition of Epinephrine for BLS in Severe Asthma and/or Anaphylaxis, changes due to duplication between BLS, LALS and ALS levels.
11080	Altered Level of Consciousness/Seizures - Adult	Added BLS Blood Glucose assessment and treatment for EMTs; added Naloxone for suspected narcotic overdose, changes due to duplication between BLS, LALS and ALS levels.
12000 END OF LIFE CARE		
None		
13000 ENVIRONMENTAL EMERGENCIES		
13010	Poisonings	Clarification of use of Atropine for known organophosphate poisoning.
14000 PEDIATRIC EMERGENCIES		
14010	Respiratory Emergencies - Pediatric	Changes due to duplication between BLS, LALS and ALS levels.
14020	Airway Obstruction - Pediatric	Reference to 10190 for patients that are taller than the maximum length of a pediatric emergency tape.
14040	Cardiac Arrest - Pediatric	Reference to 10190 for patients that are taller than the maximum length of a pediatric emergency tape. Clarification regarding purpose of capnography; removal of references to intubation.
14050	Altered Level of Consciousness - Pediatric	Addition of blood glucose BLS skill.
14060	Seizure - Pediatric	Reference to 10190 for patients that are taller than the maximum length of a pediatric emergency tape.
14070	Burns - Pediatric	Reference to 10190 for patients that are taller than the maximum length of a pediatric emergency tape.
14090	Newborn Care	Removal of advanced airway references.

30-DAY NOTIFICATION FOR PUBLIC COMMENT
NOVEMBER 17, 2017

Reference #	Name	Changes
15000 TRAUMA		
None		
DELETIONS		
6040	AED Service Provider - Lay Rescuer	Chapter 1.8 deleted. AED service provider only notifies ICEMA of installation.

AED SERVICE PROVIDER - LAY RESCUER

I. PURPOSE

To assist businesses and organizations implement Lay Rescuer automated external defibrillator (AED) service provider programs within the ICEMA region. Using (AEDs) for out-of-hospital cardiac arrests has been proven to increase survival rates. ICEMA supports the use of Lay Rescuer (non-licensed or non-certified personnel person) access AEDs within the ICEMA region, and this policy is intended to facilitate the proliferation of AED programs.

II. REQUIREMENTS OF BUSINESS/ORGANIZATION/INDIVIDUAL

- Become familiar and comply with California Code of Regulation, Title 22, Division 1.8.

- Complete an AED Site Notification form, which is found on the ICEMA website at ICEMA.net, listing each AED unit being deployed in the ICEMA region. Submit the form to:

  ICEMA
  1425 South "D" Street
  San Bernardino, CA 92415-0060

- If any of the information becomes outdated, re-submit an AED Site Notification form (i.e., the AED is moved to a different location, a new AED is purchased, etc.), which is found on the ICEMA website at ICEMA.net.

- Every time an AED is used, complete the AED Use Notification form, which is found on the ICEMA website at ICEMA.net, and submit via fax to ICEMA at (909) 388-5825, within 24 hours of use.

DELETE

III. IMPLEMENTATION CHECKLIST

Listed below are key elements taken from the California Code of Regulation, Title 22, Division 1.8. Each element must be satisfied to implement Lay Rescuer AED programs within the ICEMA region.

☐	Notify ICEMA of the existence, location, and type of every AED within the ICEMA region. The business or organization responsible for the device must, at the time the device is acquired and placed, notify ICEMA. Complete an AED Site Notification form.
☐	Expected AED users/rescuers must complete a training course in cardiopulmonary resuscitation (CPR) and in use of the AED device. The training curriculum must comply with regulations adopted by the California Emergency Medical Services Authority, the standards of the American Heart Association, or the American Red Cross. The training shall include a written and skills examination.
☐	Any AED training course for non-licensed or non-certified personnel (Lay Rescuers) shall have a physician medical director.
☐	A California licensed physician and/or surgeon must be involved in developing an internal emergency response plan for the site of the AED. The physician/surgeon is responsible for ensuring the businesses or organization's AED program complies with State regulations and requirements for training, notification, and maintenance. The internal emergency response plan shall include, but not be limited to, the provisions for immediate notification of 9-1-1 and AED-trained on-site personnel, upon discovery of the emergency. As well as procedures to be followed in the event of an emergency that may involve the use of an AED.
☐	The business/organization/lay rescuer in possession of the AED must comply with all regulations governing the training, use, and placement of the device.
☐	The AED must be maintained and regularly tested according to the manufacturer's operation and maintenance guidelines, the American Red Cross, and American Heart Association. Maintenance and testing must also comply with any applicable rules and regulations set forth by the US Food and Drug Administration and any other applicable authority.
☐	The AED must be checked for readiness at least once every thirty (30) days and after each use. Records of these periodic checks shall be maintained by the business/organization in possession of the device.
☐	A mechanism shall exist to ensure that any person rendering emergency care or using the AED activate the emergency medical services system (9-1-1) immediately. Further, the business/organization in possession of the AED is responsible for reporting any use of the AED to the physician medical director and to ICEMA. Complete an AED Use Notification form.
☐	A mechanism shall exist that assures the continued competency of the expected AED users/ rescuers employed by the business/organization in possession of the AED. Such mechanism shall include periodic training and skills proficiency demonstrations sufficient to maintain competency.
☐	For every AED unit acquired up to five (5) units, no less than one (1) employee per AED unit shall complete a training course in CPR and AED. After the first five (5) AED units are acquired, for each additional five (5) AED units acquired, one (1) additional employee shall be trained beginning with the first additional AED unit acquired. The business/organization in possession of the AED shall have trained employees available to respond to a cardiac emergency during normal operating hours.

DELETE

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~~mL Water (D10W) *		2	2	2
Diphenhydramine (Benadryl) 50 mg			1	1
Dopamine 400 mg			1	1
Epinephrine ~~1:1000~~ 1 mg/mL 1 mg		2	2	2
Epinephrine ~~1:10,000~~ 0.1 mg/mL 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	2
Nitroglycerine (NTG) - Spray 0.4 mg metered dose and/or tablets (tablets to be discarded 90 days after opening)		2	1	2

Exchanged Medications/Solutions	BLS	LALS	ALS Non-Transport	ALS Transport
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~~mL and/or 1000 ~~ml~~mL		2000 ~~ml~~mL	3000 ~~ml~~mL	6000 ~~ml~~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
Sodium Bicarbonate 50 mEq preload			2	2

Non-Exchanged Medications/Solutions	BLS	LALS	ALS Non-Transport	ALS Transport
Epinephrine (EpiPen Jr) Auto-Injector 0.15 mg	1			
Epinephrine (EpiPen) Auto-Injector 0.3 mg	1			

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 (if CPAP is carried)	1 (if CPAP is carried)	1 each	2 each
End-tidal CO2 device - Pediatric and Adult (may be integrated into bag)			1 each	1 each
Endotracheal Tubes cuffed - 6.0 and/or 6.5, 7.0 and/or 7.5 and 8.0 and/or 8.5 with stylet			2 each	2 each
ET Tube holders - adult		1 each	1 each	2 each
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

Exchanged Airway/Suction Equipment	BLS	LALS	ALS Non-Transport	ALS Transport
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~~mL Pediatric 500 ~~ml~~mL (or equivalent) Adult	 1 1 1	 1 1 1	 1 1 1	 1 1 1
Water soluble lubricating jelly		1	1	1

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

IV/NEEDLES/SYRINGES/MONITORING EQUIPMENT

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

Exchanged IV/Needles/Syringes/Monitor Equipment	BLS	LALS	ALS Non-Transport	ALS Transport
EZ-IO Driver			1 each	1 each
EZ-IO Needles: 25 mm 45 mm			 2 each 1 each	 2 each 1 each
Glucose monitoring device with compatible strips and OSHA approved single use lancets	1	1	1	1
3-way stopcock with extension tubing			2	2
IV Catheters - sizes 14, 16, 18, 20, 22, 24		2 each	2 each	2 each
Macrodrip Administration Set Microdrip Administration Set (60 drops /cc)		3 1	3 1	3 2
Mucosal Atomizer Device (MAD) for nasal administration of medication	2	2	2	4
Pressure Infusion Bag (disposable)		1	1	1
Razors		1	2	2
Safety Needles - 20 or 21gauge and 23 or 25 gauge	2 each	2 each	2 each	2 each
Saline Lock Large Bore Tubing Needleless		2	2	2
Sterile IV dressing		2	2	2
Syringes w/wo safety needles - 1 cc, 3 cc, 10 cc catheter tip		2 each		
Syringes w/wo safety needles - 1 cc, 3 cc, 10 cc, 20 cc, 60 cc catheter tip			2 each	2 each

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

OPTIONAL EQUIPMENT/MEDICATIONS

Non-Exchange Optional Equipment/Medications	BLS	LALS	ALS Non-Transport	ALS Transport
AED/defib pads - Adult (1), Pediatric (1)	1 each	1 each		
Ammonia Inhalants			2	2
Automatic CPR device (FDA approved)	1	1	1	1
Automatic transport ventilator (Specialty Program Only - ICEMA approved device)			1	1
Backboard padding	1	1	1	1

Non-Exchange Optional Equipment/Medications	BLS	LALS	ALS Non-Transport	ALS Transport
Buretrol			1	1
Chemistry profile tubes			3	3
CPAP - (must be capable of titrating pressure between 2 and 15 cm H_2O)	1 (optional)	1 (optional)	1	1
CyanoKit (Specialty Program Only)			1	1
Nerve Agent Antidote Kit (NAAK) - DuoDote or Mark I	3	3	3	3
EMS Tourniquet	1		1	1
Gum Elastic intubation stylet			2	2
Hemostatic Dressings *	1	1	1	1
IO Needles - Manual, Adult and Pediatric, Optional		Pediatric sizes only 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
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
- HemCon ChitoFlex Pro Dressing

Note:

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

DRESSING MATERIALS/OTHER EQUIPMENT/SUPPLIES

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

Non-Exchange **Dressing Materials/Other Equipment/Supplies**	**BLS**	**LALS**	**ALS Non-Transport**	**ALS Transport**
800 MHz Radio		1	1	1
Ambulance gurney	1 (BLS TRANSPORT UNITS ONLY			1
Bandage shears	1	1	1	1
Blood Borne Pathogen Protective Equipment - (nonporous gloves, goggles face masks and gowns meeting OSHA Standards)	2	1	2	2
Pediatric Emergency Measuring Tape (Broselow, etc.)		1	1	1
Drinkable water in secured plastic container or equivalent	1 gallon			1 gallon
Long board with restraint straps	1	1	1	1
Pediatric immobilization board	1	1	1	1

Non-Exchange Dressing Materials/Other Equipment/Supplies	BLS	LALS	ALS Non-Transport	ALS Transport
Pillow, pillow case, sheets and blanket	1 set (BLS TRANSPORT UNITS ONLY			1 set
Short extrication device	1	1	1	1
Straps to secure patient to gurney	1 set (BLS TRANSPORT UNITS ONLY			1 set
Traction splint	1	1	1	1
Triage Tags - 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~~ mL Water (D10W) *	2
Diphenhydramine (Benadryl) 50 mg	1
Dopamine 400 mg	1
Epinephrine ~~1:1,000~~1 mg/mL 1 mg	2
Epinephrine ~~1:10,000~~0.1 mg/mL 1mg preload	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 (NTG) - 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~~mL	1
Normal Saline 500 ~~ml~~ mL and/or 1000 ~~ml~~mL	2000 ~~ml~~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
Sodium Bicarbonate 50 mEq preload	2

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

AIRWAY/SUCTION EQUIPMENT	AMOUNT
Aircraft Oxygen source -10 L /min for 20 minutes	1
BAAM Device	1
C-PAP circuits - all manufacture's available sizes	1 each
End-tidal CO2 device - pediatric and adult (may be integrated into bag)	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
ET Tube holders - 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
Laryngoscope 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 *or* Needles for procedure 10, 12, 14 and/or16 gauge	1 each 2 each
Non Re-Breather O_2 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) *and/or* 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~~mL, Pediatric 500 ~~ml~~ mL and Adult 1 L	1 each
Water soluble lubricating jelly	1
Ridged tonsil tip suction	1

IV/NEEDLES/SYRINGES/MONITORING EQUIPMENT	AMOUNT
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 *or* Adult and Pediatric Pacer/Defibrillation pads	2 each
ECG - Pediatric and Adult	20 patches
EZ IO Needles and Driver 25 mm and 45 mm	2 each 1 each
3-way stopcock with extension tubing	2
IO Needles - Manual, Adult and Pediatric, Optional	1 each
IV Catheters - sizes 14, 16, 18, 20, 22, 24	2 each
Glucose monitoring device	1
Macrodrip Administration Set Microdrip Administration Set (60 drops/~~ml~~mL)	3 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~~mL, 3 ~~ml~~mL, 10 mL~~l~~, 20 ~~ml~~ mL	2 each
Syringe - 60 mL~~l~~ catheter tip	2
Thermometer - Mercury free with covers	1

DRESSING MATERIALS/OTHER EQUIPMENT SUPPLIES	AMOUNT
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 *or* Cervical Collars - Adjustable Adult and Pediatric	1 each 1 each
Emesis basin or disposable bags and covered waste container	1
Head immobilization device	1
OB Kit	1
Pediatric Emergency Measuring Tape (Broselow, etc.)	1
Pneumatic or rigid splints capable of splinting all extremities	4
Provodine/Iodine swabs/wipes or antiseptic equivalent	
Roller bandages - 4 inch	3
Sterile bandage compress or equivalent	6

DRESSING MATERIALS/OTHER EQUIPMENT SUPPLIES	AMOUNT
Sterile gauze pads - 4x4 inch	4
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
Nerve Agent Antidote Kit (NAAK) - DuoDote or Mark I	3
D5W in bag	1
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
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
- HemCon ChitoFlex Pro Dressing

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.

MEDICATION - STANDARD ORDERS

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

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

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

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

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

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

Reference #s 6090, 6110, 7010, 7020, 14010, 14030, 14070

Albuterol (Proventil) - Pediatric (LALS, ALS)

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

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

Albuterol (Proventil) Metered-Dose Inhaler (MDI) - Pediatric (LALS, ALS - Specialty Programs Only)

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

Reference #s 6090, 6110, 7010, 7020, 14010, 14030, 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)

Hypoglycemia - Adult with blood glucose < 80 mg/dL:

Dextrose 10% /250 mL~~l~~ (D10W 25 gm) IV/IO Bolus

Reference #s 2020, 6090, 6110, 7010, 7020, 8010, 11050, 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~~l~~ (D10W 25 gm) 0.5 gm/kg (5 mL~~l~~/kg) IV/IO

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

Diazepam (Valium) - Adult (ALS)

Diazepam for seizures associated with nerve gas/organophosphate exposure ONLY with the deployment of the ChemPack:

Diazepam 5 mg/mL auto-injector IM (if IV is unavailable)
Diazepam 5 mg IV

Reference #s 6090, 6110, 7010, 7020, 11010, 13010, 13040

Diazepam (Valium) - Pediatric (ALS)

Diazepam for seizures associated with nerve gas/organophosphate exposure ONLY with the deployment of the ChemPack:

Diazepam 5 mg/mL auto-injector (if IV is unavailable)
Diazepam 0.1 mg IV

Reference #s 6090, 6110, 7010, 7020, 11010, 13010, 13040

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 (EpiPen) Auto-Injector - Adult (BLS)

Severe Asthma and/or Anaphylaxis ONLY:

Epinephrine 0.3 mg IM. May repeat after 15 minutes one (1) time if symptoms do not improve.

Reference #s 8050, 11010

Epinephrine (EpiPen Jr) Auto Injector - Pediatric (BLS)

Severe Asthma and/or Anaphylaxis ONLY:

Epinephrine 0.15 mg IM. May repeat after 15 minutes one (1) time if symptoms do not improve.

Reference #s 8050, 14010, 14030

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

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

Epinephrine, 0.3 mg IM. May repeat after 15 minutes one (1) time if symptoms do not improve.

Reference # 11010

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

For Persistent severe anaphylactic shock:

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

Cardiac Arrest, Asystole, PEA:

Epinephrine (0.1 mg/mL), 1 mg IV/IO. Repeat after every two (2) minute cycle of CPR.

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

Epinephrine (1 mg/mL) - 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 (0.1 mg/mL~~1:10,000~~) - Pediatric (ALS)

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

Epinephrine (0.1 mg/mL~~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 (0.1 mg/mL~~1:10,000~~), 0.01 mg/kg IV/IO (do not exceed adult dosage)
9 to 14 years	Epinephrine (0.1mg/mL~~1:10,000~~), 1.0 mg IV/IO

Newborn Care:

Epinephrine (0.1 mg/mL~~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 (0.1 mg/mL~~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 (0.1 mg/mL~~1:10,000~~), 0.5 mcg/kg/min IV/IO drip

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

Fentanyl - Adult (ALS)

Chest Pain (Presumed Ischemic Origin):

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

Fentanyl, 100 mcg IM/IN. May repeat 50 mcg every 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, 10190, 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)

Adult with blood glucose < 80 mg/dL:

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)

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

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

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

Reference #s 7010, 7020, 11010, 11100

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

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

Reference #s 6090, 6110, 7010, 7020, 11010, 11100

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

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

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

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

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

Reference #s 6090, 6110, 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 (pulseless)/VF:
Initial Dose: Lidocaine, 1.5 mg/kg IV/IO

For refractory *VT (pulseless)/VF,* ~~M~~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 slow 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,~~ 10190, 11050, 11070, 15010

Lidocaine - Pediatric (ALS)

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, 10190

Lidocaine 2% Gel (Viscous) - Pediatric and Adult (ALS)

Pain associated with Nasogastric/Orogastric Tube insertion.

Reference #s 10190

Magnesium Sulfate (ALS)

Polymorphic Ventricular Tachycardia:

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

Eclampsia (Seizure/Tonic/Clonic Activity):

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

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

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

Midazolam (Versed) - Adult (ALS)

Seizure:

Midazolam, 2.5 mg IV/IO/IN. 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 IV/IO/IM/IN may be administered for continued seizure activity. Contact base hospital for additional orders and to discuss further treatment options.

Pacing, synchronized cardioversion:

Midazolam, 2 mg slow IV/IO push or IN

Reference #s 6090, 6110, 7010, 7020, 10110, 10120, 10190, 11080, 13020, 14080

Midazolam (Versed) - Pediatric (ALS)

Seizures:

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

Midazolam, 0.2 mg/kg IM/IN with maximum dose of 5 mg. May repeat Midazolam in 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 IV/IO/IM/IN 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 (BLS)

Resolution of respiratory depression related to suspected narcotic overdose:

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

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

Reference #s 6110, 7010, 7020, 8050 11080

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, 11080

Naloxone (Narcan) - Pediatric (BLS)

Resolution of respiratory depression related to suspected narcotic overdose:

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

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

Reference #s 7010, 7020, 8050, 14040, 14050

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

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

Reference #s 7010, 7020, 14040, 14050

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

Nerve agent exposure with associated symptoms:

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

Nitroglycerin (NTG) (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

Oxygen (non-intubated patient per appropriate delivery device)

General Administration (Hypoxia):

Titrate Oxygen at lowest rate required to maintain SPO_2 at 94%.
Do not administer supplemental oxygen for SPO_2 > 95%

Chronic Obstructive Pulmonary Disease (COPD):

Titrate Oxygen at lowest rate required to maintain SPO_2 at 90%
Do not administer supplemental oxygen for SPO_2 > 91%

Reference #s 6140, 9010, 9120, 11010, 11020, 11040, 11050, 11060, 11080, 11090, 11100, 13010, 13020, 13030, 14010, 14020, 14030, 14050, 14060, 14070, 14080, 14090, 15010, 15020

Phenylephrine HCL (ALS)

Phenylephrine, 0.5 mg metered dose may be repeated once prior to additional attempt of nasotracheal intubation.

Reference #s 7010, 7020, ~~10050,~~ 10190

Sodium Bicarbonate (ALS) (base hospital order only)

Tricyclic Poisoning:

Sodium Bicarbonate, 1 mEq/kg IV/IO

Reference #s 2020, 7010, 7020, 13010

TRANSPORT OF PATIENTS (BLS)

I. PURPOSE

In the prehospital setting or during interfacility transport, a certified Emergency Medical Technician (EMT) ~~I~~ working in the ICEMA region or supervised EMT ~~I trainee~~ student ~~who has received appropriate training~~ may monitor peripheral lines delivering intravenous fluids, Foley catheters, heparin locks, nasogastric tubes, ~~and~~ gastrostomy tubes, perform finger stick blood glucose testing, administer naloxone for suspected narcotic overdose, and administer epinephrine by auto-injector for suspected anaphylaxis and/or severe asthma under Section ~~10015~~100063(b), Title 22 of the California ~~Health and Safety Code~~Code of Regulations provided the following conditions are met.~~:~~

II. FIELD ASSESSMENT/TREATMENT INDICATORS

~~1.~~ ● An EMT ~~I~~ may monitor, maintain and adjust as necessary in order to maintain a preset rate of flow and turn off peripheral lines delivering ~~intravenous fluids~~ glucose solutions or isotonic solutions including Ringers lactate for volume replacement ~~during interfacility transport and in the prehospital setting~~ provided ~~with~~ the following restrictions are met:

- ~~a.~~ Interfacility transfers: The patient is not critical and deemed stable by the transferring physician and that physician authorizes transport.
- ~~b.~~ Scene transport: The patient is not critical and the base station physician approves transport by an EMT ~~I~~.
- ~~c.~~ No additional medications have been added to the intravenous fluids.
- ~~d.~~ In the prehospital setting, no other advanced life support procedures have been initiated.

~~2.~~ ● The EMT ~~I~~ shall:

- ~~a.~~ Monitor and maintain the IV at a preset rate.
- ~~b.~~ Check the tubing for kinks and reposition the arm if necessary when loss of flow occurs.
- ~~c.~~ Control the bleeding at the IV site.

- d. Turn off the flow of intravenous fluid if infiltration or alteration of flow occurs. Vital signs should then be monitored frequently.

e. Transfer patient with any combination/concentration of:

i. D5/water with or without:

1.) Normal Saline

2.) Lactated Ringers

3.) Isolyte or Isolyte M

ii. Normal Saline

iii. Lactated Ringers

3. • An EMT-I may transport a patient with a heparin lock provided:

- a. The patient is not critical and deemed stable by the transferring Physician or Base Station physician and the transferring physician approves transport by an EMT-I.

- b. The EMT-I shall:

  - i. Monitor the heparin lock only as placed at time of transfer.

  - ii. Control any bleeding at insertion site.

4. • An EMT-I may transport a patient with a Foley catheter provided:

- a. The patient is noncritical and deemed stable by the transferring Physician or Base station Physician and the transferring physician approves transport by an EMT-I.

- b. The catheter is able to drain freely to gravity.

- c. No action is taken to impede flow or disrupt contents of drainage collection bag.

5. • An EMT-I may transport a patient with a nasogastric tube or gastrostomy tube provided:

- ~~a.~~ The patient is not critical and deemed stable by the transferring physician or Base Station Physician and the physician approves transport by an EMT-I.
- ~~b.~~ Nasogastric and gastrostomy tubes are clamped.
- ~~c.~~ All patients who have received fluids prior to transport are transferred in semi-fowlers position to prevent aspiration unless contraindicated.

- An EMT may perform finger stick blood glucose testing if patient meets field assessment/treatment indicators, as outlined in ICEMA Reference #11080 - Altered Level of Consciousness/Seizures – Adult, ICEMA Reference #14040 – Cardiac Arrest – Pediatric, and –ICEMA Reference #14060 – Seizure – Pediatric

- An EMT may administer Naloxone by intranasal and/or intramuscular routes for suspected narcotic overdose, as outlined in ICEMA Reference #11080 - Altered Level of Consciousness/Seizures - Adult, ICEMA Reference #14040 – Cardiac Arrest – Pediatric and ICEMA Reference #14050 - Altered Level of Consciousness/Seizures - Pediatric.

- An EMT may administer Epinephrine by auto-injector for suspected anaphylaxis and/or severe asthma, as outlined in ICEMA Reference #11010 - Respiratory Emergencies - Adult, and ICEMA Reference #14010 - Respiratory Emergencies - Pediatric.

~~6.~~
- If at any time the patient's condition deteriorates, the patient should be transported to the closest Receiving Hospital.

III. REFERENCES

Name	Number
11010	Respiratory Emergencies - Adult
11080	Altered Level of Consciousness/Seizures - Adult
14010	Respiratory Emergencies - Pediatric
14050	Altered Level of Consciousness/Seizures - Pediatric

PROCEDURE - STANDARD ORDERS

12-lead Electrocardiography (EMT-P)

- ECG should be performed prior to medication administration.
- ECG should be performed on any patient whose medical history and/or presenting symptoms are consistent with acute coronary syndrome including typical or atypical chest pain, syncopal episode, prior AMI, heart disease, or other associated risk factors.

Axial Spinal Immobilization (EMT, AEMT and EMT-P)

- Should be placed if patient meets the indicators , per ICEMA Reference #15010 - Trauma - Adult (Neuro Deficits present, Spinal Tenderness present, Altered Mental status, Intoxication, or Distracting Injury).
- An AEMT and/or EMT-P may remove if placed by BLS crew and it does not meet indicators.

Continuous Positive Airway Pressure Device (CPAP) - Adult (EMT, AEMT and EMT-P)

- Start at lowest setting and increase slowly until patient experiences relief or until a maximum of 15 cm H_2O is reached.

External Jugular Vein Access (AEMT and EMT-P)

- Not indicated for patients eight (8) years of age and younger.
- Patient condition requires IV access and other peripheral venous access attempts are unsuccessful.

Blood Glucose Check (EMT, AEMT, and EMT-P)

- Should be assessed if the patient meets key indicators consistent with high or low blood sugar.

Intraosseous Insertion (AEMT pediatric patients only and EMT-P)

- EMT-Ps may administer Lidocaine slowly per ICEMA Reference #7040 - Medication - Standard Orders, to control infusion pain.

- Approved insertion sites:
  - Eight (8) years of age or younger (LALS and ALS):
    - Proximal Tibia - Anterior medial surface of tibia, 2 cm below tibial tuberosity.
  - Nine (9) years of age and older (ALS only):
    - Proximal Tibia - Anterior medial surface of tibia, 2 cm below tibial tuberosity.
    - Distal Tibia - Lower end of tibia, 2 cm above the medial malleolus.
    - Humeral Head (EZ IO only).
    - Anterior distal femur, 2 cm above the patella - Base hospital contact only.
- Leave site visible and monitor for extravasation.

King Airway Device (Perilaryngeal) - Adult (EMT Specialty Program, AEMT, and EMT-P)

- Use of King Airway adjunct may be performed only on those patients who meet **all** of the following criteria:
  - Unresponsive, agonal respirations (less than six (6) breaths per minute) or apneic.
  - Patients 15 years or older.
  - Anyone over four (4) feet in height.
- Additional considerations:
  - Medications may **not** be given via the King Airway.
  - King Airway adjunct should not be removed unless it becomes ineffective.

King Airway Device (Perilaryngeal) - Pediatric (less than 15 years of age) (EMT Specialty Program, AEMT, and EMT-P)

- Use of King Airway adjunct may be performed only on those patients who meet **all** of the following criteria:
  - Unresponsive, agonal respirations (less than six (6) breaths per minute) or apneic.
  - No gag reflex.

- Pediatric patients meeting the following criteria:
  - 35 - 45 inches or 12 - 25 kg: size 2
  - 41 - 51 inches or 25 - 35 kg: size 2.5

- Additional Considerations:
  - Medications may **not** be given via the King Airway.
  - King Airway adjunct should not be removed unless it becomes ineffective.

Nasogastric/Orogastric Tube (EMT-P)

- Use viscous Lidocaine gel per ICEMA Reference #7040 - Medication - Standard Orders, for conscious patients.
- Required for all full arrest patients.

Nasotracheal Intubation - Adult (EMT-P)

- Absolute contraindication: Apnea.
- Base hospital contact required for: Ffacial trauma, anticoagulant therapy, airway burns, failed CPAP.
- For suspected head/brain injury iImmediately prior to intubation, consider Lidocaine prophylactically per ICEMA Reference #7040 - Medication - Standard Orders., for suspected head/brain injury.
- Administer Phenylephrine per ICEMA Reference #7040 - Medication - Standard Orders.
- Monitor end-tidal CO_2 and waveform capnography.
- Monitor pulse oximetry.
- Contact base hospital if unable to place ET after a maximum of three (3) nasotracheal intubation attempts or if unable to adequately ventilate patient via BVM.

Needle Cricothyrotomy (EMT-P)

- Absolute contraindication: Transection of the distal trachea.
- Monitor end-tidal CO_2 and waveform capnography.

- Monitor pulse oximetry.

- Contact base hospital if unable to ventilate adequately and transport immediately to the closest hospital for airway management.

Needle Thoracostomy (EMT-P)

- In blunt chest trauma consider bilateral tension pneumothorax if pulse oximetry (SpO_2) reading remains low with a patent airway or with poor respiratory compliance.

Oral Endotracheal Intubation - Adult (EMT-P)

- Oral endotracheal intubation is permitted only in patients who are taller than the maximum length of a Broselow Pediatric Emergency Tape or equivalent measuring from the top of the head to the heal of the foot.

- For suspected head/brain injury i~~I~~mmediately prior to intubation, consider Lidocaine prophylactically per ICEMA Reference #7040 - Medication - Standard Orders~~, for head injury~~.

- Monitor end-tidal CO_2 and waveform capnography.

- Monitor pulse oximetry.

- If unable to place ET after a maximum of three (3) intubation attempts ~~(an attempt is considered made when tube passes the gum line~~defined as placement of the laryngoscope in the mouth,~~) and, if all procedures to establish an adequate airway fail, consider Needle Cricothyrotomy~~ continue with BLS airway management and transport to the nearest receiving hospital.

- Document verification of tube placement (auscultation, visualization, capnography)

Synchronized Cardioversion (EMT-P)

- Consider Midazolam for anxiety prior to cardioversion per ICEMA Reference #7040 - Medication - Standard Orders~~, for anxiety~~.

- Consider Fentanyl for pain per ICEMA Reference #7040 - Medication - Standard Orders.~~, for pain.~~

- If rhythm deteriorates to v-fib, turn off the sync button and defibrillate.

- Select initial energy level setting at 100 joules or a clinically equivalent biphasic energy level per manufacture guidelines. Procedure may be repeated at 200, 300

and 360 joules or a clinically equivalent biphasic energy level per manufacture guidelines.

- In Radio Communication Failure or with base hospital order, repeated cardioversion attempts at 360 joules or clinically equivalent biphasic energy level per manufacturer's guidelines may be attempted.

Transcutaneous Cardiac Pacing (EMT-P)

- Start at a rate of sixty (60) and adjust output to the lowest setting to maintain capture. Assess peripheral pulses and confirm correlation with paced rhythm.

- Reassess peripheral pulses. Adjust output to compensate for loss of capture.

- Increase rate **(not to exceed 100)** to maintain adequate tissue perfusion.

- Consider Midazolam for anxiety per ICEMA Reference #7040 - Medication - Standard Orders.~~, for anxiety~~

- Consider Fentanyl for pain per ICEMA Reference #7040 - Medication - Standard Orders.~~, for pain.~~

- Contact the base hospital if rhythm persists or for continued signs of inadequate tissue perfusion.

Vagal Maneuvers (EMT-P)

- Relative contraindications for patients with hypertension, suspected STEMI, or suspected head/brain injury.

- Reassess cardiac and hemodynamic status. Document rhythm before, during and after procedure.

- If rhythm does not covert within ten (10) seconds, follow ICEMA Reference #11050 -Tachycardias - Adult.

RESPIRATORY EMERGENCIES - ADULT

CHRONIC OBSTRUCTIVE PULMONARY DISEASE

I. FIELD ASSESSMENT/TREATMENT INDICATORS

Symptoms of chronic pulmonary disease, wheezing, cough, pursed lip breathing, decreased breath sounds, accessory muscle use, anxiety, ALOC or cyanosis.

II. BLS INTERVENTIONS

- Reduce anxiety, allow patient to assume position of comfort.

- Administer oxygen as clinically indicated, obtain O_2 saturation on room air, or on home oxygen if possible.

III. LIMITED ALS (LALS) INTERVENTIONS

- Perform activities identified in the BLS Interventions.

- Maintain airway with appropriate adjuncts, including advanced airway if indicated. Obtain O_2 saturation on room air or on home oxygen if possible.

- Albuterol per ICEMA Reference #7040 - Medication - Standard Orders.

IV. ALS INTERVENTIONS

- Perform activities identified in the BLS and LALS Interventions.

- ~~Maintain airway with appropriate adjuncts, including advanced airway if indicated. Obtain O_2 saturation on room air or on home oxygen if possible.~~

- Albuterol with Atrovent per ICEMA Reference #7040 - Medication - Standard Orders.

- Place patient on Continuous Positive Airway Pressure (CPAP), refer to ICEMA Reference #10190 - ~~ICEMA Approved Skills~~ Procedure - Standard Orders.

- Consider advanced airway, refer to ICEMA Reference #10190 - ~~ICEMA Approved Skills~~ Procedure - Standard Orders.

- Base hospital physician may order additional medications or interventions as indicated by patient condition.

V. REFERENCES

Number	**Name**
7040	Medication - Standard Orders
10190	~~ICEMA Approved Skills~~Procedure - Standard Orders

ACUTE ASTHMA/BRONCHOSPASM/ALLERGIC REACTION/ANAPHYLAXIS

I. FIELD ASSESSMENT/TREATMENT INDICATORS

History of prior attacks, possible toxic inhalation or allergic reaction, associated with wheezing, diminished breath sounds or cough.

II. BLS INTERVENTIONS (For severe asthma and/or anaphylaxis **only**)

- Reduce anxiety, allow patient to assume position of comfort.
- Administer oxygen as clinically indicated, humidified oxygen preferred.
- Administer Epinephrine via auto-injector per ICEMA Reference #7040 - Medication - Standard Orders. Contact base hospital for patients with a history of coronary artery disease, history of hypertension or over 40 years of age prior to administration of Epinephrine.
- After 15 minutes, may repeat Epinephrine via auto-injector one (1) time if symptoms do not improve per ICEMA Reference #7040 - Medication - Standard Orders. ~~after 15 minutes one (1) time~~

III. LIMITED ALS (LALS) INTERVENTIONS

- Perform activities identified in the BLS Interventions.
- Maintain airway with appropriate adjuncts, obtain O_2 saturation on room air if possible.
- Albuterol per ICEMA Reference #7040 - Medication - Standard Orders.
- For signs of inadequate tissue perfusion, initiate IV bolus of 300 cc NS. If signs of inadequate tissue perfusion persist may repeat fluid bolus one (1) time.
- If no response to Albuterol, administer Epinephrine (1 mg/mL) per ICEMA Reference #7040 - Medication - Standard Orders. Contact base hospital for patients with a history of coronary artery disease, history of hypertension or over 40 years of age prior to administration of Epinephrine.

- May repeat Epinephrine (1 mg/mL), per ICEMA Reference #7040 - Medication - Standard Orders, after 15 minutes one (1) time.

- ~~Base hospital physician may order additional medications or interventions as indicated by patient condition.~~

IV. ALS INTERVENTIONS

- Perform activities identified in the BLS and LALS Interventions.

- ~~Maintain airway with appropriate adjuncts, obtain O_2 saturation on room air if possible.~~

- Albuterol, with Atrovent per ICEMA Reference #7040 - Medication - Standard Orders.

- For suspected allergic reaction, consider Diphenhydramine per ICEMA Reference #7040 - Medication - Standard Orders.

- ~~For signs of inadequate tissue perfusion, initiate IV bolus of 300 cc NS. If signs of inadequate tissue perfusion persist may repeat fluid bolus until signs of improved tissue perfusion.~~

- Place patient on Continuous Positive Airway Pressure (CPAP), refer to ICEMA Reference #10190 - ~~ICEMA Approved Skills~~ Procedure - Standard Orders.

- ~~If no response to Albuterol, administer Epinephrine per ICEMA Reference #7040 - Medication - Standard Orders. Contact base hospital for patients with a history of coronary artery disease, history of hypertension or over 40 years of age prior to administration of Epinephrine.~~

- ~~May repeat Epinephrine per ICEMA Reference #7040 - Medication - Standard Orders after 15 minutes one (1) time.~~

- ~~For suspected allergic reaction, consider Diphenhydramine per ICEMA Reference #7040 - Medication - Standard Orders.~~

- For persistent severe anaphylactic shock, administer Epinephrine (0.1 mg/mL) per ICEMA Reference #7040 - Medication - Standard Orders.

- Consider advanced airway, refer ICEMA Reference #10190 - ~~ICEMA Approved Skills.~~ Procedure - Standard Orders.

- Base hospital physician may order additional medications or interventions as indicated by patient condition.

V. REFERENCES

Number	Name
7040	Medication - Standard Orders
10190	~~ICEMA Approved Skills~~Procedure - Standard Orders

ACUTE PULMONARY EDEMA/CHF

I. FIELD ASSESSMENT/TREATMENT INDICATORS

History of cardiac disease, including CHF, and may present with rales, occasional wheezes, jugular venous distention and/or peripheral edema.

II. BLS INTERVENTIONS

- Reduce anxiety, allow patient to assume position of comfort.

- Administer oxygen as clinically indicated. For pulmonary edema with high altitude as a suspected etiology, descend to a lower altitude and administer high flow oxygen with a non re-breather mask.

- Be prepared to support ventilations as clinically indicated.

III. LIMITED ALS (LALS) INTERVENTIONS

- Perform activities identified in the BLS Interventions.

- Maintain airway with appropriate adjuncts, obtain O_2 saturation on room air if possible.

- Nitroglycerine (NTG) per ICEMA Reference #7040 - Medication - Standard Orders. ~~Do not use or discontinue NTG in presence of hypotension (SBP <100).~~ In the presence of hypotension (SBP < 100), the use of NTG is contraindicated.

- If symptoms do not improve after NTG administration, consider Albuterol per ICEMA Reference #7040 - Medication - Standard Orders.~~, if nitro is not working.~~

IV. ALS INTERVENTIONS

- Perform activities identified in the BLS and LALS Interventions.

- ~~Maintain airway with appropriate adjuncts, obtain O_2 saturation on room air if possible.~~

- ~~Nitroglycerine per ICEMA Reference #7040 - Medication - Standard Orders.~~

- Place patient on Continuous Positive Airway Pressure (CPAP), refer to ICEMA Reference #10190 - ~~ICEMA Approved Skills~~Procedure - Standard Orders.

- Consider advanced airway, refer to ICEMA Reference #10190 ~~-~~ - ~~ICEMA Approved Skills.~~Procedure - Standard Orders.

- Base hospital physician may order additional medications or interventions as indicated by patient condition.

- In radio communication failure (RCF), the following medications may be utilized:

  - Dopamine per ICEMA Reference #7040 - Medication - Standard Orders.

  - After the patient condition has stabilized, consider Albuterol with Atrovent per ICEMA Reference #7040 - Medication - Standard Orders. ~~after patient condition has stabilized.~~

V. REFERENCES

Number	**Name**
7040	Medication - Standard Orders
8050	Transport of Patients (BLS)
10190	~~ICEMA Approved Skills~~Procedure - Standard Orders

ALTERED LEVEL OF CONSCIOUSNESS/SEIZURES - ADULT

I. FIELD ASSESSMENT/TREATMENT INDICATORS

- Patient exhibiting signs/symptoms of a possible altered level of consciousness.
- Suspected narcotic dependence, overdose, hypoglycemia, traumatic injury, shock and alcoholism.
- Tonic/clonic movements followed by a brief period of unconsciousness (post-ictal).
- Suspect status epilepticus for frequent or extended seizures.

II. BLS INTERVENTIONS

- Oxygen therapy as clinically indicated.
- Position patient as tolerated. If altered gag reflex in absence of traumatic injury, place in left lateral position.
- Place patient in axial spinal stabilization per ICEMA Reference #15010 - Trauma - Adult (15 years of age and older).
- Obtain and assess blood glucose level. If indicated, administer:
  - Glucose - Oral per ICEMA Reference #7040 Medication - Standard Orders.
- ~~If patient history includes insulin or oral hypoglycemic medications, administer Glucose sublingual.~~
- If suspected narcotic overdose with severely decreased respiratory drive administer:
  - Naloxone per ICEMA Reference #7040 - Medication - Standard Orders.
- Assess patient for medication related reduced respiratory rate or hypotension.
- Assess and document response to therapy.

III. LIMITED ALS (LALS) INTERVENTIONS

- Perform activities identified in the BLS Interventions.
- Obtain vascular access.
- Obtain and assess blood glucose level. If indicated administer:
  - Dextrose per ICEMA Reference #7040 - Medication - Standard Orders, **or**
  - If unable to establish IV, Glucagon may be given one (1) time per ICEMA Reference #7040 - Medication - Standard Orders.~~, if unable to establish IV. May give one (1) time only.~~
  - If indicated m~~M~~ay repeat blood glucose level. Repeat Dextrose per ICEMA Reference #7040 - Medication - Standard Orders.~~ if indicated.~~
- ~~If suspected narcotic overdose with severely decreased respiratory drive administer:~~
  - ~~Naloxone per ICEMA Reference #7040 - Medication - Standard Orders.~~
- ~~Assess and document response to therapy.~~
- ~~Base hospital may order additional medication dosages and fluid bolus.~~

IV. ALS INTERVENTIONS

- Perform activities identified in the BLS and LALS Interventions.
- ~~Obtain vascular access and p~~Place on cardiac monitor.
- ~~Obtain blood glucose level. If indicated administer:~~
  - ~~Dextrose per ICEMA Reference #7040 - Medication - Standard Orders, **or**~~
  - ~~Glucagon per ICEMA Reference #7040 - Medication - Standard Orders, if unable to establish IV. May give one (1) time only.~~
  - ~~May repeat blood glucose level. Repeat Dextrose per ICEMA Reference #7040 - Medication - Standard Orders if indicated.~~

- For tonic/clonic type seizure activity, administer:
  - Midazolam per ICEMA Reference #7040 - Medication - Standard Orders.
  - Assess patient for medication related reduced respiratory rate or hypotension.
- If suspected narcotic overdose with severely decreased respiratory drive administer:
  - Naloxone per ICEMA Reference #7040 - Medication - Standard Orders.
- Assess and document response to therapy.
- ~~Base hospital may order additional medication dosages and fluid bolus.~~

V. REFERENCES

Number	Name
7040	Medication - Standard Orders
8050	Transport of Patients (BLS)
15010	Trauma - Adult (15 years of age and older).

VENTRICULAR ASSIST DEVICE (VAD)

I. PURPOSE

To establish guidelines for EMS field personnel in the prehospital assessment, treatment and transport of patients who have a Ventricular Assist Device (VAD).

II. FIELD ASSESSMENT/TREATMENT INDICATORS

- The EMS field personnel shall first assess the patient and not the device. Utilize the American Heart Association's C-A-B recommendations, with one (1) addition:
    - C-Circulation/**Connections (Device)**
    - A-Airway
    - B-Breathing
- Clinical assessment of the patient is essential and the **most** important clinical observation (i.e., level of consciousness, skin signs, adequate perfusion).
- Follow appropriate ICEMA protocols for the patients' condition.
- There are no medication contraindications in relation to the VAD.
- If defibrillation or cardioversion is necessary, follow the appropriate ICEMA protocol. The pump is insulated, so electrical therapy should not be an issue.
- A patient with a VAD might not have a palpable pulse as this is a continuous flow device. However, they do have a heart rate and rhythm. The 12-lead ECG or heart monitor will show the patient's native heart rhythm and will not necessarily reflect the patient's circulatory function. Treat arrhythmias according to ICEMA protocols, except for chest compressions.
- Waveform capnography monitoring is appropriate as pulse oximetry may not be measurable or it may be inaccurate.

- VAD patients may not have a systolic and diastolic blood pressure obtainable by standard methods using a manual or automatic blood pressure cuff. It may be possible to auscultate. The mean arterial blood pressure (MAP) typical range is 70 - 90mmHg. To calculate the MAP, use the formula below:

$$MAP = \frac{SBP + (2 \times DBP)}{3}$$

MAP = mean arterial pressure

SBP = systolic blood pressure

DBP = diastolic blood pressure

III. PROCEDURE

- A patient with a VAD will most likely have a trained companion with them. The companion is familiar with the VAD and emergency troubleshooting. The companion should accompany the patient during transport and be responsible for the VAD whenever possible.

- VAD patients and their companions are taught to call 9-1-1 in an emergency then page the on call VAD Coordinator immediately. The VAD Coordinator will typically be on the telephone to provide additional assistance to the EMS field personnel when they arrive.

- Contact information for the VAD Coordinator and the VAD Implant Center is usually attached to or located inside the patients' VAD equipment bag.

- When transporting these patients to the appropriate hospital, the VAD emergency bag, power module, power base unit, batteries, charger, and backup controller **<u>must</u>** all be brought to the hospital.

- Transport decision must be made by both the on call VAD Coordinator and the base hospital, typically transported to the nearest appropriate VAD Implant Center (Loma Linda University Medical Center in ICEMA region), with preference given to their implanting center whenever possible.

NOTE: If the paramedic on scene has assessed the patient and observed the following:

- The patient is unresponsive and is asystole on the cardiac monitor, **<u>and</u>**

- All connections to the device have been assessed and not producing a "hum" over the apex of the heart upon auscultation, **<u>and</u>**

- Waveform Capnography is less than 10 and MAP is less than 50, **<u>then</u>**

Chest compressions can **<u>only</u>** be performed as a last resort for patient condition.

POISONINGS

I. FIELD ASSESSMENT/TREATMENT INDICATORS

- Altered level of consciousness.
- Signs and symptoms of substance ingestion, inhalation, injection or surface absorption.
- History of substance poisoning.
- For nerve gas, carbamate or organophosphate exposure in which the ChemPack has been deployed, refer to ICEMA Reference #13040 - Nerve Agent Antidote Kit (Training, Storage and Administration).

II. PRIORITIES

- Assure the safety of EMS field personnel.
- Assure and maintain ABCs.
- Determine degree of physiological distress.
- Obtain vital signs, history and complete physical assessment including the substance ingested, the amount, the time substance was ingested and the route.
- Bring ingested substance to the hospital with patient.
- Expeditious transport.

III. BLS INTERVENTIONS

- Assure and maintain ABCs.
- Obtain oxygen saturation on room air, unless detrimental to patient condition. ~~Place patient on high flow oxygen as clinically indicated.~~ Administer oxygen per ICEMA Reference #7040 Medication - Standard Orders.
- Contact poison control (1-800-222-1222).
- Obtain accurate history of incident:

- Name of product or substance.
- Quantity ingested, and/or duration of exposure.
- Time elapsed since exposure.
- Pertinent medical history, chronic illness, and/or medical problems within the last twenty-four (24) hours.
- Patient medication history.

- Monitor vital signs.
- Expeditious transport.

IV. LIMITED ALS (LALS) INTERVENTIONS PRIOR TO BASE HOSPITAL CONTACT

- Perform activities identified in the BLS Interventions.
- ~~Assure and maintain ABCs.~~
- ~~Oxygen therapy as clinically indicated, obtain O_2 saturation on room air, unless detrimental to patient condition.~~
- Obtain vascular access at a TKO rate or if signs of inadequate tissue perfusion, administer 500 cc fluid challenge and repeat until perfusion improves.
- For pediatric patients with signs of inadequate tissue perfusion, administer 20 ~~cc~~mL/kg IV~~P~~ and repeat until perfusion improves.

V. ALS INTERVENTIONS PRIOR TO BASE HOSPITAL CONTACT

- Perform activities identified in the BLS and LALS Interventions.
- ~~Oxygen therapy as clinically indicated, obtain O_2 saturation on room air, unless detrimental to patient condition.~~
- Monitor cardiac status.
- ~~Obtain vascular access at a TKO rate or if signs of inadequate tissue perfusion, administer 500 cc fluid challenge and repeat until perfusion improves.~~

- ~~For pediatric patients with signs of inadequate tissue perfusion, administer 20 cc/kg IVP and repeat until perfusion improves.~~

- For phenothiazine "poisoning" with ataxia and/or muscle spasms, administer Diphenhydramine per ICEMA Reference #7040 - Medication - Standard Orders ~~for ataxia and/or muscle spasms~~.

- For known organophosphate poisoning, administer Atropine per ICEMA Reference #7040 - Medication - Standard Orders.

VI. BASE HOSPITAL MAY ORDER THE FOLLOWING

1.* For tricyclic poisonings, administer Sodium Bicarbonate per ICEMA Reference #7040 - Medication - Standard Orders.

2.* For calcium channel blocker poisonings with persistent hypotension or bradycardic arrhythmias, administer Calcium Chloride per ICEMA Reference #7040 - Medication - Standard Orders. ~~, if hypotension or bradycardic arrhythmias persist.~~

3.* For beta blocker poisonings, administer Glucagon per ICEMA Reference #7040 -Medication - Standard Orders.

~~4.* Repeat Atropine in 2 - 4 mg increments until symptoms are controlled.~~

* May be done during radio communication failure (RCF).

VII. REFERENCE

Number	**Name**
7040	Medication - Standard Orders
13040	Nerve Agent Antidote Kit (Training, Storage and Administration)

NERVE AGENT ANTIDOTE KIT
(Training, Storage, and Administration)

I. PURPOSE

To provide a standard for the training, storage and use of nerve agent antidote kits (NAAK) by EMS field personnel.

II POLICY

- The NAAK (DuoDote or Mark I) is an optional personal protective equipment (PPE) for self-administration.

- The NAAK is authorized for self-administration by public safety personnel, emergency medical technician (EMT), advanced emergency medical technician (AEMT) or paramedic (EMT-P) following exposure to nerve agents, organophosphates, or carbamates.

- EMS provider agencies equipping EMT, or AEMT with NAAK for self-administration must provide NAAK training as described below.

- Public Safety agencies equipping their personnel with NAAK for self-administration must provide training per ICEMA Reference #XXXX - Optional Skills and Medications - Public Safety Personnel.

- When the ChemPack is deployed, the EMT, AEMT or EMT-P may administer the NAAK and/or AtroPen to patients per ICEMA Reference #7040 Medication - Standard Orders. EMS providers employing the EMT or AEMT must ensure NAAK training as described below. EMT-P does not require any additional training.

- When the ChemPack is deployed, EMT-Ps are authorized by the ICEMA Medical Director to administer Diazepam (Valium) per ICEMA Reference #7040 Medication - Standard Orders.

- Public Safety personnel are **not** permitted to administer the NAAK to patients without prior authorization (refer to ICEMA Reference #XXXX - Optional Skills and Medications - Public Safety Personnel). Public safety personnel may not administer AtroPen (Atropine).

III. TRAINING REQUIREMENTS

- Training will consist of no less than two (2) hours of ICEMA approved didactic and skills laboratory training that includes:

- Indications
- Contraindications
- Side/adverse effects
- Routes of administration
- Dose
- Mechanisms of drug action
- Disposal of contaminated items and sharps
- Medication administration and proper use of NAAK

- At the completion of the training, the student will complete a competency based written and skills examination for the administration of Atropine and Pralidoxime Chloride (2-Pam) that includes:

  - Assessment of when to administer the medication.
  - Managing a patient before, during, and after administering the medication.
  - Using universal precautions and body substance isolation procedures during medication administration.
  - Demonstration of aseptic technique during medication administration.
  - Demonstrate the preparation of the medication.
  - Demonstrate site selection and administration of medication by the intramuscular route.
  - Proper disposal of contaminated items and sharps.
  - Completion of the notification of usage form.

- All personnel will repeat the competency based skills examination every two (2) years.

- EMS providers providing NAAK training must retain training records for a minimum of four (4) years and make all records available for review at the request of ICEMA or the California EMS Authority.

IV. REFERENCE

Number	**Name**
7040	Medication - Standard Orders
XXXX	Optional Skills and Medications - Public Safety Personnel

RESPIRATORY EMERGENCIES - PEDIATRIC
(Less than 15 years of age)

I. FIELD ASSESSMENT/TREATMENT INDICATORS

- Asthma
- Toxic Inhalation
- Difficult Breathing

II. BLS INTERVENTIONS

- Assess environment and determine possible causes.
- If safe remove patient from any suspected contaminant.
- Recognize signs and symptoms of respiratory distress for age.
- For anaphylaxis (e.g., no palpable radial pulse and a depressed level of consciousness) or severe asthma, administer Epinephrine via auto-injector per ICEMA Reference #7040 - Medication - Standard Orders.
- Reduce anxiety, assist patient to assume position of comfort.
- Oxygen administration as clinically indicated (humidified oxygen preferred).

III. LIMITED ALS (LALS) INTERVENTIONS

- Perform activities identified in the BLS Interventions.
- Maintain airway with appropriate adjuncts, obtain oxygen saturation on room air if possible.
- Albuterol per ICEMA Reference #7040 - Medication - Standard Orders.
- If no response to Albuterol, consider Epinephrine per ICEMA Reference #7040 - Medication - Standard Orders.
- Obtain vascular access at a TKO rate.
- If allergic reaction suspected, refer to ICEMA Reference #14030 - Pediatric Allergic Reaction (Less than 15 years of age).

- Base hospital physician may order additional medications or interventions as indicated by patient condition.

IV. ALS INTERVENTIONS

- Perform activities identified in the BLS and LALS Interventions.

- ~~Maintain airway with appropriate adjuncts, obtain O_2 saturation on room air if possible.~~

  - ~~Albuterol with Atrovent, per ICEMA Reference #7040 - Medication - Standard Orders.~~

- Albuterol with Atrovent, per ICEMA Reference #7040 - Medication - Standard Orders.

- If no response to Albuterol and Atrovent, consider Epinephrine per ICEMA Reference #7040 - Medication - Standard Orders. Obtain vascular access at a TKO rate.

- If allergic reaction suspected, refer to ICEMA Reference #14030 - Allergic Reactions - Pediatric (Less than 15 years of age).

- Base hospital physician may order additional medications or interventions as indicated by patient condition.

V. REFERENCES

Number	Name
7040	Medication - Standard Orders
14030	Allergic Reactions - Pediatric (Less than 15 years of age)

AIRWAY OBSTRUCTION - PEDIATRIC
(Less than 15 years of age)

I. FIELD ASSESSMENT/TREATMENT INDICATORS

- Universal sign of distress.
- Sudden alteration in respiratory effort or signs of obstruction - coughing, gagging, stridor, wheezing, or apnea.
- Altered level of consciousness (for younger children this is measured by the inability to recognize caregiver, no aversion to being cared for by EMS field personnel, limp and/or ineffective cry).

II. BLS INTERVENTIONS

RESPONSIVE

- Assess for ability to cry, speak or cough (e.g., “are you choking?”).
- Administer abdominal thrusts (repeated cycles of five (5) back slaps and five (5) chest thrusts for infant less than one (1) year), until the foreign body obstruction is relieved or until patient becomes unresponsive.
- After obstruction is relieved, reassess and maintain ABCs.
- Obtain oxygen saturation on room air if possible.
- Administer oxygen.
- If responsive, place in position of comfort, enlisting help of child’s caregiver if needed. If child is uninjured but unresponsive with adequate breathing and a pulse, place in recovery position.

UNRESPONSIVE

- Position patient supine (for suspected trauma maintain in-line axial stabilization). Place under-shoulder support to achieve neutral cervical spinal position if indicated.
- Begin CPR, starting with thirty (30) compressions.

- Open airway using the head tilt-chin lift method (for suspected trauma, use jaw thrust). Remove object if visible.

- If apneic, attempt two (2) ventilations with bag-valve mask. If no chest rise or unable to ventilate, continue cycles of thirty (30) compressions to two (2) ventilations until obstruction is relieved or able to ventilate.

- If apneic and able to ventilate, provide one (1) breath every three (3) to five (5) seconds. Confirm that pulses are present and reassess every two (2) minutes.

III. LIMITED ALS (LALS) INTERVENTIONS

- Perform activities identified in the BLS Interventions.

- If apneic and able to ventilate, consider King Airway placement per ICEMA Reference #10190 - Procedure - Standard Orders.

- If obstruction persists continue with compressions until obstruction is relieved or arrival at hospital.

- Transport to closest receiving hospital for airway management.

IV. ALS INTERVENTIONS

- If obstruction persists and unable to ventilate, attempt to visualize and remove visible foreign body with Magill forceps and attempt to ventilate.

- If obstruction persists, consider Needle Cricothyrotomy per ICEMA Reference #10190 - Procedure - Standard Orders.

V. REFERENCE

Number	Name
10190	Procedure - Standard Orders

ALLERGIC REACTIONS - PEDIATRIC
(Less than 15 years of age)

I. FIELD ASSESSMENT/TREATMENT INDICATORS

- Signs and Symptoms of an acute allergic reaction.
- History of Exposure to possible allergen.

II. BLS INTERVENTIONS

- Recognize signs/symptoms of respiratory distress for age.
- Reduce anxiety, assist patient to assume POC.
- Oxygen administration as clinically indicated, (humidified oxygen preferred).
- Assist patient with self-administration of prescribed Epinephrine device. For anaphylaxis (e.g., no palpable radial pulse and a depressed level of consciousness) or severe asthma, administer Epinephrine via auto-injector per ICEMA Reference #7040 - Medication - Standard Orders.
- Assist patient with self-administration of prescribed Diphenhydramine.

III. LIMITED ALS (LALS) INTERVENTIONS - PEDIATRIC (Less than 15 years of age)

- Perform activities identified in the BLS Interventions.
- Maintain airway with appropriate adjuncts, obtain oxygen saturation on room air if possible.
- Albuterol per ICEMA Reference #7040 - Medication - Standard Orders.
- If no response to Albuterol, consider Epinephrine per ICEMA Reference #7040 - Medication - Standard Orders.
- For symptomatic hypotension with poor perfusion, consider fluid bolus of 20 mLl/kg of NS not to exceed 300 ml NS and repeat as indicated.
- Establish additional IV access if indicated.
- ~~Base hospital may order additional medication dosages and additional fluid boluses.~~

IV. ALS INTERVENTIONS

- Perform activities identified in the BLS and LALS Interventions.
- ~~Maintain airway with appropriate adjuncts, obtain O_2 saturation on room air if possible.~~
- Albuterol with Atrovent per ICEMA Reference #7040 - Medication - Standard Orders.
- If no response to Albuterol and Atrovent, consider Epinephrine per ICEMA Reference #7040 - Medication - Standard Orders.
- ~~For symptomatic hypotension with poor perfusion, consider fluid bolus of 20 ml/kg of NS not to exceed 300 ml NS and repeat as indicated.~~
- Diphenhydramine per ICEMA Reference #7040 - Medication - Standard Orders.
- If apneic and unable to ventilate, consider oral endotracheal intubation per ICEMA Reference #10190 - Procedure - Standard Orders for patients who are taller than the maximum length of a Broselow Pediatric Emergency Tape or equivalent measuring from the top of the head to the heal of the foot.
- Establish additional IV access if indicated.
- ~~For anaphylactic shock (e.g., no palpable radial pulse and a depressed level of consciousness), administer Epinephrine per ICEMA Reference #7040 - Medication - Standard Orders.~~
- Base hospital may order additional medication dosages and additional fluid boluses.

V. REFERENCES

Number	Name
7040	Medication - Standard Orders
8050	Transport of Patients (BLS)

CARDIAC ARREST - PEDIATRIC
(Less than 15 years of age)

I. FIELD ASSESSMENT/TREATMENT INDICATORS

Cardiac arrest in a non-traumatic setting. Consider the potential causes of arrest for age.

II. BLS INTERVENTIONS

- Assess patient, maintain appropriate airway; begin CPR according to current AHA Guidelines.
  - ➢ Ventilate at rate of 12 to 20 per minute. Ventilatory rate will decrease as patient age increases. Ventilatory volumes shall be the minimum necessary to cause chest rise.
  - ➢ Compression rate shall be a minimum of 100 per minute.
- If suspected narcotic overdose with severely decreased respiratory drive administer:
  - ➢ Naloxone per ICEMA Reference #7040 - Medication - Standard Orders.
- Obtain and assess blood glucose level. If indicated administer:
  - ➢ Glucose - Oral per ICEMA Reference #7040 Medication - Standard Orders.
- If patient one (1) year of age or older, utilize AED.

III. LIMITED ALS (LALS) INTERVENTIONS

- Perform activities identified in the BLS Interventions.
- Initiate CPR while applying the AED.
- Follow the instructions from the AED to determine if shock is advised.
- Obtain IO/IV access (IO is preferred for under nine (9) years of age).
- Establish advanced airway with minimal interruption to CPR, when resources are available.

- For continued signs of inadequate tissue perfusion, administer fluid bolus of NS. Reassess after each bolus. May repeat two (2) times for continued signs of inadequate tissue perfusion. In RCF, may give two (2) additional fluid boluses if indicated.

  - 1 day to 8 years: 20 ml/kg NS

  - 9 to 14 years: 300 ml NS

- Obtain blood glucose level, if indicated administer:

  - Dextrose as per ICEMA Reference #7040 - Medication - Standard Orders.

  - May repeat blood glucose level. Repeat Dextrose per ICEMA Reference #7040 - Medication - Standard Orders if indicated.

  - Administer Glucagon per ICEMA Reference #7040 - Medication - Standard Orders, if unable to start an IV.

- ~~If suspected narcotic overdose with severely decreased respiratory drive administer:~~

  - ~~Naloxone per ICEMA Reference #7040 - Medication - Standard Orders.~~

- ~~Base hospital physician may order additional medication dosages and additional fluid boluses.~~

IV. ALS INTERVENTIONS

- Perform activities identified in the BLS and LALS Interventions.

- Initiate CPR while applying the cardiac monitor.

- Determine the cardiac rhythm and defibrillate at 2 j/kg (or manufacturer's recommended equivalent) if indicated. Begin a two (2) minute cycle of CPR.

- Obtain IO/IV access (IO is preferred).

- Establish advanced airway when resources are available, with minimal interruption to CPR per ICEMA Reference #10190 Procedure - Standard Orders.

- Insert NG/OG tube after advanced airway is established or if not placed with BLS airway.

- Continue CPR with compressions at a minimum of 100 /min without pauses during ventilations. Ventilations should be given at a rate of one (1) breath every six (6) to eight (8) seconds.

- Utilize continuous quantitative waveform capnography, to~~for~~ confirm~~ation and monitoring of endotracheal tube placement and~~ the effectiveness of chest compressions and for identification of ROSC~~ for assessment of ROSC and perfusion status~~.

Ventricular Fibrillation/Pulseless Ventricular Tachycardia

- Initial defibrillation is administered at 2 j/kg (or manufacturer's recommended equivalent). Second defibrillation is administered at 4 j/kg. Third and subsequent defibrillation attempts should be administered at 10 j/kg not to exceed the adult dose.

- Perform CPR for two (2) minutes after each defibrillation, without delaying to assess the post-defibrillation rhythm.

- Administer Epinephrine, per ICEMA Reference #7040 - Medication - Standard Orders, during each two (2) minute cycle of CPR after each defibrillation unless capnography indicates possible ROSC.

- Reassess rhythm after each two (2) minute cycle of CPR. If VF/VT persists, defibrillate as indicated above.

- After two (2) cycles of CPR, consider administering Lidocaine per ICEMA Reference #7040 - Medication - Standard Orders, may repeat.

- If patient remains in pulseless VF/VT after five (5) cycles of CPR, consult base hospital.

Pulseless Electrical Activity/Asystole

- Assess for reversible causes and initiate treatment.

- Continue CPR with evaluation of rhythm every two (2) minutes.

- Administer initial fluid bolus of 20 ml/kg NS for all ages, may repeat at:

  - 1 day to 8 years: 20 ml/kg NS

  - 9 to 14 years: 300 ml NS

- Administer Epinephrine, per ICEMA Reference #7040 - Medication - Standard Orders, during each two (2) minute cycle of CPR after each rhythm evaluation.

Treatment Modalities for Managing Pediatric Cardiac Arrest Patient

Whenever possible, provide family members with the option of being present during the resuscitation of an infant or a child. For any termination of efforts, base hospital contact is required.

- Insert NG/OG tube to relieve gastric distention if the patient has an advanced or BLS airway per ICEMA Reference #10190 - Procedure - Standard Orders.

- For continued signs of inadequate tissue perfusion, administer fluid bolus of NS. Reassess after each bolus. May repeat two (2) times for continued signs of inadequate tissue perfusion. In RCF, may give two (2) additional fluid boluses if indicated.

  - 1 day to 8 years: 20 ml/kg NS

  - 9 to 14 years: 300 ml NS

- Obtain blood glucose level. If indicated administer:

  - Dextrose per ICEMA Reference #7040 - Medication - Standard Orders.

  - May repeat blood glucose level. Repeat Dextrose per ICEMA Reference #7040 - Medication - Standard Orders if indicated.

  - Naloxone for suspected opiate overdose per ICEMA Reference #7040 - Medication - Standard Orders.

If ROSC is achieved, obtain a 12-lead ECG.

- Utilize continuous waveform capnography, to identify loss of circulation.

- For continued signs of inadequate tissue perfusion **after** successful resuscitation:

  - Epinephrine per ICEMA Reference #7040 - Medication - Standard Orders.

  - 9 to 14 years: Dopamine per ICEMA Reference #7040 - Medication - Standard Orders.

- Base hospital physician may order additional medications or interventions as indicated by patient condition.

V. REFERENCES

Number	**Name**
7040	Medication - Standard Orders
8050	Transport of Patients (BLS)
10190	Procedure - Standard Orders

ALTERED LEVEL OF CONSCIOUSNESS - PEDIATRIC
(Less than 15 years of age)

I. FIELD ASSESSMENT/TREATMENT INDICATORS

- Patient exhibits inappropriate behavior for age.
- History or observation of an Apparent Life Threatening Event (ALTE).

II. BLS INTERVENTIONS

- Assess environment and determine possible causes for illness.
- Axial-spinal stabilization, if clinically indicated.
- Oxygen therapy, if clinically indicated.
- Airway management, as indicated (OPA/NPA, BVM Ventilation).
- Obtain and assess blood glucose~~es~~ level. If indicated, administer:
  - Glucose - Oral per ICEMA Reference #7040 Medication - Standard Orders.
- If suspected narcotic overdose with severely decreased respiratory drive, administer:
  - Naloxone per ICEMA Reference #7040 - Medication - Standard Orders.
- Obtain patient temperature. Begin cooling measures if temperature is elevated or warming measures if temperature is decreased.

III. LIMITED ALS (LALS) INTERVENTIONS

- Perform activities identified in the BLS Interventions.
- Establish advanced airway as needed.
- Obtain vascular access.
- For symptomatic hypotension with poor perfusion, consider fluid bolus of 20 mL~~l~~/kg of NS not to exceed 300 mL~~l~~ NS.

- Obtain and assess blood glucose level~~,~~. ~~if~~ If indicated administer:
  - Dextrose per ICEMA Reference #7040 - Medication - Standard Orders.
  - May repeat blood glucose level. Repeat Dextrose per ICEMA Reference #7040 - Medication - Standard Orders if indicated.
  - If unable to establish an IV consider Glucagon per ICEMA Reference #7040 - Medication - Standard Orders~~, if unable to start an IV~~.
- ~~If suspected narcotic overdose with severely decreased respiratory drive administer:~~
  - ~~Naloxone per ICEMA Reference #7040 - Medication - Standard Orders.~~
- ~~Base hospital physician may order additional medication dosages and additional fluid boluses.~~

IV. ALS INTERVENTIONS

- Perform activities identified in the BLS and LALS Interventions.
- Establish advanced airway as needed. Consider intubation per ICEMA Reference #10190 Procedure - Standard Orders.~~ for patients that are taller than the maximum length of a pediatric emergency tape.~~
- ~~Obtain vascular access and p~~Place on cardiac monitor.
- ~~For symptomatic hypotension with poor perfusion, consider fluid bolus of 20 ml/kg of NS not to exceed 300 ml NS. May repeat twice for continued signs of inadequate tissue perfusion.~~
- ~~Obtain blood glucose level, if indicated administer:~~
  - ~~Dextrose per ICEMA Reference #7040 - Medication - Standard Orders.~~
  - ~~May repeat blood glucose level. Repeat Dextrose per ICEMA Reference #7040 - Medication - Standard Orders, if indicated.~~
  - ~~Glucagon per ICEMA Reference #7040 - Medication - Standard Orders, if unable to start an IV.~~

- ~~If suspected narcotic ingestion with severely decreased respiratory distress administer:~~
    - ~~Naloxone per ICEMA Reference #7040 - Medication - Standard Orders.~~

- Base hospital physician may order additional medication dosages and additional fluid boluses.

V. REFERENCE

Number	Name
7040	Medication - Standard Orders
8050	Transport of Patients (BLS)
10190	Procedure - Standard Orders

SEIZURE - PEDIATRIC
(Less than 15 years of age)

I. FIELD ASSESSMENT/TREATMENT INDICATORS

- Tonic/clonic movements followed by a brief period of unconsciousness (post-ictal).
- Suspect status epilepticus for frequent or extended seizures.
- History of prior seizures, narcotic dependence or diabetes.
- Febrile seizures (patients under four (4) years of age).
- Traumatic injury.

II. BLS INTERVENTIONS

- Protect patient from further injury; axial-spinal stabilization if indicated.
- Assure and maintain airway patency after cessation of seizure, with oxygen therapy as indicated.
- Airway management as indicated (OPA/NPA, BVM Ventilation).
- Obtain and assess blood glucose level. If indicated administer:
  - Glucose - Oral per ICEMA Reference #7040 Medication - Standard Orders.
- Position patient in left lateral position in absence of traumatic injury; watch for absent gag reflex.
- Remove excess clothing and begin cooling measures if patient is febrile.
- Protect patient during transport by padding appropriately.

III. LIMITED ALS (LALS) INTERVENTIONS

- Perform activities identified in the BLS Interventions.
- Establish advanced airway as clinically indicated.
- Obtain vascular access.

- Obtain blood glucose level, if indicated administer:
  - Dextrose per ICEMA Reference #7040 - Medication - Standard Orders.
  - May repeat blood glucose level. Repeat Dextrose per ICEMA Reference #7040 - Medication - Standard Orders if indicated.
  - Glucagon per ICEMA Reference #7040 - Medication - Standard Orders, if unable to start an IV.

IV. ALS INTERVENTIONS

- Perform activities identified in the BLS and LALS Interventions.
- Establish advanced airway as clinically indicated per ICEMA Reference #10190 - Procedure - Standard Orders.
- ~~Obtain vascular access and p~~Place on cardiac monitor if indicated.
- ~~Obtain blood glucose level, if indicated administer:~~
  - ~~Dextrose per ICEMA Reference #7040 - Medication - Standard Orders.~~
  - ~~May repeat blood glucose level. Repeat Dextrose per ICEMA Reference #7040 - Medication - Standard Orders if indicated.~~
  - ~~Glucagon per ICEMA Reference #7040 - Medication - Standard Orders, if unable to start an IV.~~
- For tonic/clonic type seizure activity administer:
  - Midazolam per ICEMA Reference #7040 - Medication - Standard Orders.
  - Assess and document response to therapy.
  - Base hospital may order additional medication dosages or a fluid bolus.

V. REFERENCE

Number	Name
7040	Medication - Standard Orders
10190	Procedure - Standard Orders

BURNS - PEDIATRIC
(Less Than 15 Years of Age)

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

- Perform activities identified in the BLS 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/~~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~~mL /hour

  - > 5 years of age - < 15 years of age: IV NS 250 ~~ml~~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. <u>Manage Special Considerations</u>

- **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

- Perform activities identified in the BLS and LALS Interventions.

- Establish advanced airway as clinically indicated per ICEMA Reference #10190 Procedure - Standard Orders.

  - 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. <u>Manage Special Considerations</u>

- **Respiratory Distress**: Establish advanced airway if facial/oral swelling are present or if respiratory depression or distress develops due to inhalation injury per ICEMA Reference #10190 Procedure - Standard Orders.

  - 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.

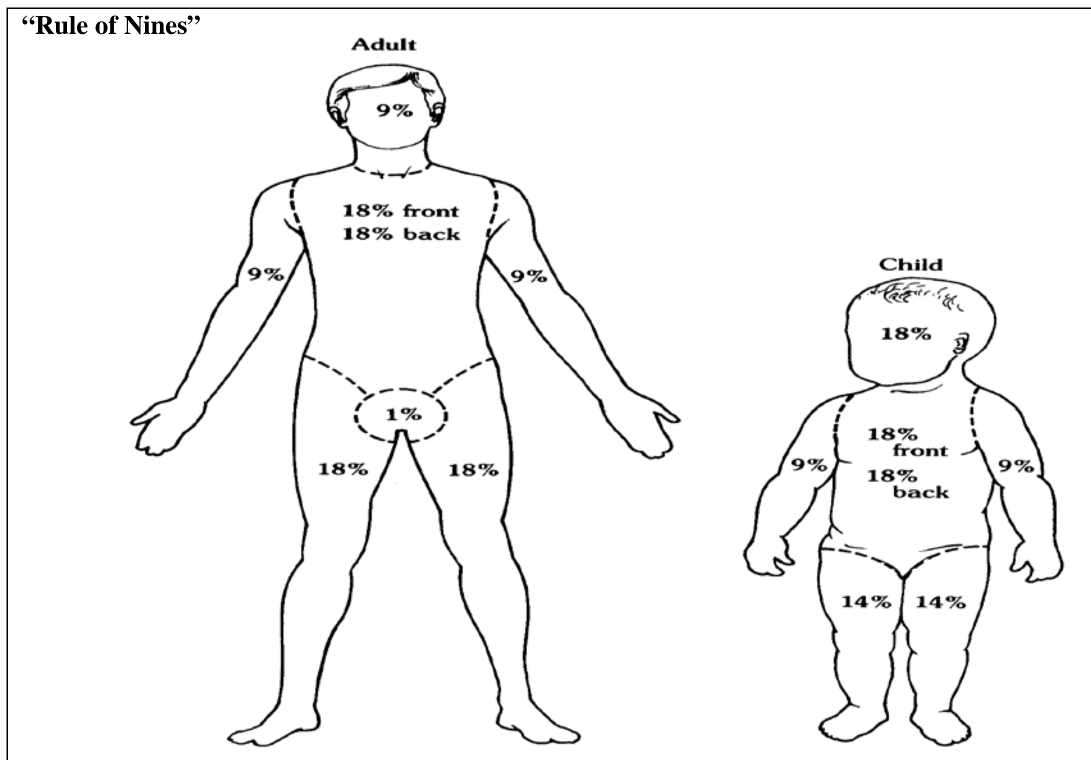
- **Precautions and Comments**:

  - 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
<u>MINOR</u> - PEDIATRIC • < 5% TBSA • < 2% Full Thickness	**CLOSEST MOST APPROPRIATE RECEIVING HOSPITAL**
<u>MODERATE</u> - PEDIATRIC • 5 - 10% TBSA • 2 - 5% Full Thickness • High Voltage Injury • Suspected Inhalation Injury • Circumferential Burn • Medical problem predisposing to infection (e.g., diabetes mellitus, sickle cell disease)	**CLOSEST MOST APPROPRIATE RECEIVING HOSPITAL**
<u>MAJOR</u> - PEDIATRIC • > 10% TBSA • > 5% Full Thickness • High Voltage Burn • Known Inhalation Injury • Any significant burn to face, eyes, ears, genitalia, or joints	**CLOSEST MOST APPROPRIATE BURN CENTER** In San Bernardino County, contact: Arrowhead Regional Medical Center (ARMC)



VI. REFERENCES

Number	Name
7040	Medication - Standard Orders
8130	Destination Policy
10190	Procedure - Standard Orders
12010	Determination of Death on Scene

NEWBORN CARE

I. FIELD ASSESSMENT/TREATMENT INDICATORS

- Field delivery with or without complications.

II. BLS INTERVENTIONS

- When head is delivered, suction mouth then the nose, and check to see that cord is not around baby's neck.

- Dry infant and provide warm environment. Prevent heat loss (remove wet towel).

- Place baby in supine position at or near the level of the mother's vagina. After pulsation of cord has ceased double clamp cord at approximately seven (7) inches and ten (10) inches from baby and cut between clamps.

- Maintain airway, suction mouth and nose.

- Provide tactile stimulation to facilitate respiratory effort.

- Assess breathing if respirations < 20 or gasping, provide tactile stimulation and assisted ventilation if indicated.

- Circulation:

  - Heart Rate < 100 ventilate BVM with 100% oxygen for thirty (30) seconds and reassess. If heart rate is still < 100 /min, begin CPR with ventilations at a 3:1 ratio of compressions to ventilations (approximately 100 compressions and 30 ventilations /min).

- If central cyanosis is present, utilize supplemental oxygen at 10 to 15 L /min using oxygen tubing close to infant's nose and reassess. If no improvement is noted after thirty (30) seconds assist ventilation with BVM.

- Obtain Apgar scoring at one (1) and five (5) minutes. Do not use Apgar to determine need to resuscitate.

APGAR SCORE

SIGN	0	1	2
Heart Rate	Absent	< 100 /minute	> 100 /minute
Respirations	Absent	< 20 /irregular	>20 /crying
Muscle Tone	Limp	Some Flexion	Active Motion
Reflex Irritability	No Response	Grimace	Cough or Sneeze
Color	Blue or pale	Blue Extremities	Completely Pink

III. LIMITED ALS (LALS) INTERVENTIONS

- Perform activities identified in the BLS Interventions.
- Obtain vascular access via IV if indicated.
- Obtain blood glucose by heel stick.
  - If blood glucose < 35 mg/dL, administer Dextrose per ICEMA Reference #7040 - Medication - Standard Orders.
- ~~Contact base hospital if hypovolemia is suspected. Base hospital may order 10 ml/kg IV NS over five (5) minutes. If unable to contact base hospital and transport time is extended, administer 10 ml/kg IV NS over five (5) minutes, may repeat one (1) time.~~

IV. ALS INTERVENTIONS

- Perform activities identified in the BLS and LALS Interventions.
- Obtain vascular access via IV/IO if indicated.
- ~~Consider advanced airway, per ICEMA Reference #10190 - ICEMA Approved Skills, i~~If BVM is ineffective or tracheal suctioning is required,~~.~~ ~~U~~utilize Waveform Capnography to assess efficacy of compressions and ventilations. Place orogastric tube.~~, after advanced airway is in place~~. ~~Reassess placement after every intervention.~~
- Obtain blood glucose by heel stick.
  - If blood glucose < 35 mg/dL, administer Dextrose per ICEMA Reference #7040 - Medication - Standard Orders.
- Evaluate airway for hypoxemia and assess body temperature for hypothermia then consider Epinephrine per ICEMA Reference #7040 - Medication - Standard Orders , if heart rate < 60 after one (1) minute.

- Contact base hospital if hypovolemia is suspected. Base hospital may order 10 ml/kg IV NS over five (5) minutes. If unable to contact base hospital and transport time is extended, administer 10 ml/kg IV NS over five (5) minutes, may repeat.

- For persistent hypotension despite adequate ventilation and fluid resuscitation, base hospital may order Epinephrine per ICEMA Reference #7040 - Medication - Standard Orders, every ten (10) minutes. If unable to contact base hospital and transport time is extended, give indicated dosage and contact base hospital as soon as possible.

V. REFERENCES

Number	Name
7040	Medication - Standard Orders
10190	~~ICEMA Approved Skills~~Procedure - Standard Orders

ALLERGIC REACTION AND ANAPHYLAXIS
(Authorized Public Safety Personnel)

I. FIELD ASSESSMENT/TREATMENT INDICATORS

- Non-anaphylactic allergic reaction:
  - Involving only one organ system (localized angioedema that does not compromise the airway or not associated with vomiting).
- Anaphylaxis characterized by acute onset involving:
  - Skin or mucosa with either respiratory compromise or decreased BP or signs of end-organ dysfunction, **<u>or</u>**
  - Two or more of the following occurring rapidly after exposure to a likely allergen:
    - Skin and/or mucosal involvement (urticarial, itchy, swollen tongue/lips)
    - Respiratory compromise (dyspnea, wheeze, stridor, hypoxemia)
    - Persistent gastrointestinal symptoms (vomiting, abdominal pain)
    - Hypotension or associated symptoms (syncope, hypotonia, incontinence)

II. PUBLIC SAFETY INTERVENTION

<u>Non-Anaphylactic Allergic Reaction</u>

- Ensure EMS has been activated using the 9-1-1 system.
- Maintain standard blood and body fluid precautions. Use appropriate personal protective equipment (gloves, face shield).
- Provide supplemental oxygen, if authorized, per ICEMA Reference #16040 Respiratory Distress (Authorized Public Safety Personnel).
- Monitor for worsening signs and symptoms, and possible progression to anaphylaxis.

Anaphylaxis

- Ensure EMS has been activated using the 9-1-1 system.
- Maintain standard blood and body fluid precautions. Use appropriate personal protective equipment (gloves, face shield).
- Open the airway using Basic Life Support techniques.
- Perform rescue breathing, if indicated, using a protective mouth shield.
- Provide supplemental oxygen, if authorized, per ICEMA Reference #16040 Respiratory Distress (Authorized Public Safety Personnel).
- Administer Epinephrine via auto-injector or EpiPen IM into outer thigh (may be administered through clothing).
- After Epinephrine administration, observe for improved breathing and consciousness. If breathing or consciousness do not improve, assist breathing with bag-valve-mask if available, and authorized.
- Begin CPR if no pulse and breathing detected.
- If symptoms persist after 15 minutes, repeat Epinephrine via auto-injector or EpiPen IM into opposite outer thigh.
- Report administration of Epinephrine via auto-injector to EMS field personnel for documentation on the electronic patient care report (ePCR).
- Complete report per public service agency policy.

III. REFERENCE

Number	Name
16040	Respiratory Distress (Authorized Public Safety Personnel)

NERVE AGENT EXPOSURE
(Authorized Public Safety Personnel)

I. FIELD ASSESSMENT/TREATMENT INDICATORS

- Confirmed or suspected exposure to nerve agent, carbamate or organophosphate.

- Signs and symptoms of nerve agent/organophosphate ingestion, inhalation, injection or surface absorption (**S**alivation, **L**acrimation, **U**rinary incontinence, **D**efecation, **G**astroenteritis, **E**mesis, **M**iosis).

II. PUBLIC SAFETY INTERVENTION

- Ensure EMS has been activated using the 9-1-1 system.

- Maintain standard blood and body fluid precautions. Use appropriate personal protective equipment (gloves, face shield, gown), avoid cross contamination.

- Remove patient from area of continued exposure; remove contaminated clothing; follow decontamination procedures when available.

- Assess patient's respiratory, mental and pupillary status.

- Open the airway using Basic Life Support techniques and perform rescue breathing, if indicated. Provide oxygen per ICEMA Reference #16040 - Respiratory Distress (Authorized Public Safety Personnel).

- Following exposure and in the presence of symptoms, administer Nerve Agent Antidote Kit (NAAK) containing full dose of Atropine/Pralidoxime Chloride (Mark I or DuoDote) into outer thigh (may be administered through clothing).

➢ Repeat Atropine/Pralidoxime Chloride administration using NAAK up to two (2) times every 10 - 15 minutes if symptoms persist.

- Report administration of NAAK to EMS field personnel for documentation on the electronic patient care report (ePCR).

- Complete report per public service agency policy.

III. REFERENCE

Number	Name
16040	Respiratory Distress (Authorized Public Safety Personnel)

OPIOID OVERDOSE
(Authorized Public Safety Personnel)

I. FIELD ASSESSMENT/TREATMENT INDICATORS

- Suspected narcotic overdose.
- Environment suspicious for illegal or prescription use of narcotics, **and**
- Victim is poorly responsive and respiratory (breathing) rate appears slow or shallow; or victim is unresponsive and not breathing.

II. PUBLIC SAFETY INTERVENTION

Poor Breathing and Decreased Consciousness

- Ensure EMS has been activated using the 9-1-1 system.
- Maintain standard blood and body fluid precautions. Use appropriate personal protective equipment (gloves, face shield).
- Check for responsiveness using verbal or painful stimuli.
- Open the airway using Basic Life Support technique.
- Perform rescue breathing, if indicated, using a bag-valve-mask or protective face shield.
- Administer Naloxone nasal spray.
  - Naloxone nasal spray 4 mg preloaded single dose device.
    - Administer full dose in one (1) nostril.
    - If partial response in breathing or consciousness, repeat Naloxone nasal spray 4 mg preloaded single dose administration in nostril opposite to the first dose.
- After Naloxone nasal spray administration, observe for improved breathing and consciousness. If breathing or consciousness do not improve, assist breathing if bag-valve-mask is available per ICEMA Reference #16040 - Respiratory Distress (Authorized Public Safety Personnel), or begin CPR if no pulse and breathing detected.

- If awakened by Naloxone nasal spray, be alert for sudden, agitated behavior or symptoms of opioid withdrawal, such as vomiting, abdominal cramps, or sweating.

- If CPR is not necessary, place patient on left side to avoid inhaling any possible vomit.

- Report administration of Naloxone nasal spray to EMS field personnel for documentation on the electronic patient care report (ePCR).

- Complete report per public service agency policy.

<u>Not Breathing/Unresponsive</u>

- Ensure EMS has been activated using the 9-1-1 system.

- Maintain standard blood and body fluid precautions. Use appropriate personal protective equipment (gloves, face shield).

- Begin CPR (chest compressions with ventilation if bag-valve-mask is available per ICEMA Reference #16040 - Respiratory Distress (Authorized Public Safety Personnel).

- Administer Naloxone nasal spray.

    - Naloxone nasal spray 4 mg preloaded single dose device.

        - Administer full dose in one (1) nostril.
        - If partial response in breathing or consciousness, repeat Naloxone nasal spray 4 mg preloaded single dose administration in nostril opposite to the first dose.

- After Naloxone nasal spray administration, observe for improved breathing and consciousness. If breathing or consciousness do not improve, assist breathing if bag-valve-mask is available per ICEMA Reference #16040 Respiratory Distress (Authorized Public Safety Personnel), or begin CPR if no pulse and breathing detected.

- If awakened by Naloxone nasal spray, be observant for possible sudden, agitated behavior or symptoms of opioid withdrawal, such as vomiting, abdominal cramps, or sweating.

- If CPR is not necessary, place patient on left side to avoid inhaling any possible vomit.

- Report administration of Naloxone nasal spray to EMS personnel for documentation on the electronic patient care report (ePCR).

- Complete report per public service agency policy.

III. REFERENCE

Number	Name
16040	Respiratory Distress (Authorized Public Safety Personnel)

RESPIRATORY DISTRESS
(Authorized Public Safety Personnel)

I. FIELD ASSESSMENT/TREATMENT INDICATORS

- Victim's respiratory (breathing) rate appears slow or shallow; or victim is unresponsive and not breathing.

II. PUBLIC SAFETY INTERVENTION

Slow or Shallow Respiration and/or Decreased Consciousness

- Ensure EMS has been activated using the 9-1-1 system.
- Maintain standard blood and body fluid precautions. Use appropriate personal protective equipment (gloves, face shield).
- Check for responsiveness using verbal or painful stimuli.
- Open the airway using Basic Life Support techniques.
- Administer oxygen using nasal cannula or non-rebreather mask as indicated.
- Place patient on left side to avoid inhaling any possible vomit.
- Report administration of oxygen to EMS field personnel for documentation on the electronic patient care report (ePCR).
- Complete report per public service agency policy.

Not Breathing/Unresponsive

- Ensure EMS has been activated using the 9-1-1 system.
- Maintain standard blood and body fluid precautions. Use appropriate personal protective equipment (gloves, face shield).
- Begin CPR (chest compressions with ventilation if bag-valve-mask is available).
- Obtain AED if possible.
- Continue CPR as indicated.

- Administer oxygen using non-rebreather mask or bag-valve-mask as indicated.

- Consider environmental causes of decreased breathing, such as possible opioid overdose or exposure to nerve agents.

- Report administration of oxygen to EMS field personnel for documentation on the electronic patient care report (ePCR).

- Complete report per public service agency policy.