



Inland Counties Emergency Medical Agency

Serving San Bernardino, Inyo, and Mono Counties

*Tom Lynch, EMS Administrator
Reza Vaezazizi, MD, Medical Director*

DATE: March 14, 2014

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
Other Interested Parties

FROM: Tom Lynch  Reza Vaezazizi, MD 
EMS Administrator Medical Director

SUBJECT: **PROTOCOLS FOR 30-DAY COMMENT**

The following protocols have been reviewed and revised by ICEMA and are now available for public comment and recommendations.

ICEMA Reference #:

- 3010 - Annual Review Class (ARC) (DELETE)
- 5030 - Procedure for Adoption of Protocols and Policies
- 6140 - Smoke Inhalation/CO Exposure/Suspected Cyanide Toxicity (NEW)
- 7010 - BLS/LALS/ALS Standard Drug and Equipment List
- 7020 - EMS Aircraft Drug and Equipment List
- 7030 - Controlled Substance Policy
- 8130 - Destination Protocol (NEW)
- 9090 - Patient Refusal of Care Guidelines - Adult
- 9100 - Patient Refusal of Care Guidelines - Adult (DELETE)
- 10190 - ICEMA Approved Skills (NEW)
- 11070 - Cardiac Arrest - Adult
- 11080 - Altered Level of Consciousness/Seizures - Adult
- 14040 - Cardiac Arrest - Pediatric (Less than 15 years of age)
- 14050 - Altered Level of Consciousness - Pediatric (Less than 15 years of age)

ICEMA encourages all system participants to submit recommendations, in writing, to ICEMA during the comment period. **Written comments will be accepted until Sunday, April 13, 2014, at 5:00 pm.** Comments may be sent via hardcopy, faxed to (909) 388-5850 or via e-mail to Sherri.Shimshy@cao.sbcounty.gov. Comments submitted and any revisions made will be presented at the Medical Advisory Committee meeting. The protocols will also be presented at the Inyo and Mono Counties EMCC meetings, when applicable.

TL/RV/jlm

Enclosures

c: File Copy

PROTOCOLS CHANGES FOR 30-DAY COMMENT PERIOD
March 14, 2014

Reference #	Title	Changes/Comments
NEW		
6140	Smoke Inhalation/CO exposure/Suspected Cyanide Toxicity	New specialty program.
8130	Destination Protocol	New protocol.
10190	ICEMA Approved Skills	New format for Skills protocols.
1000 ACCREDITATION AND CERTIFICATION		
None		
2000 DATA COLLECTION		
None		
3000 EDUCATION		
None		
4000 QUALITY IMPROVEMENT		
None		
5000 MISCELLANEOUS SYSTEM POLICIES		
5030	Procedures for Adoption of Protocols and Policies	Change to process of protocol changes.
6000 SPECIALTY PROGRAM/ PROVIDER POLICIES		
None		
7000 STANDARD DRUG & EQUIPMENT LISTS		
7010	BLS/LALS/ALS Standard Drug and Equipment List	Updated - Capnography moved to mandatory.
7020	EMS Aircraft Drug and Equipment list	Updated - Capnography moved to mandatory.
7030	Controlled Substance Policy	Changed to reflect changes in Title 22, Division 9, Chapter 4, Article 7, Section 100168.
8000 TRANSPORT/TRANSFERS AND DESTINATION POLICIES		
None		
9000 GENERAL PATIENT CARE POLICIES		
9090	Patient Refusal of Care Guidelines - Adult	Formatting changes and updated.

PROTOCOLS CHANGES FOR 30-DAY COMMENT PERIOD
March 14, 2014

Reference #	Title	Changes/Comments
10000 SKILLS		
None		
11000 ADULT EMERGENCIES		
11070	Cardiac Arrest - Adult	Changes to format and medication doses.
11080	Altered Level of Consciousness/Seizures - Adult	Changes to format and medication doses.
12000 END OF LIFE CARE		
None		
13000 ENVIRONMENTAL EMERGENCIES		
None		
14000 PEDIATRIC EMERGENCIES		
14040	Cardiac Arrest - Pediatric (Less than 15 years of age)	Change to format and medication dose.
14050	Altered Level of Consciousness - Pediatric (Less than 15 years of age)	Change to format and medication dose.
15000 TRAUMA		
None		
DELETIONS		
3010	Annual Review Class (ARC)	Deleted. No longer have the ARC for ICEMA education.
9100	Patient Refusal of Care or Other Patient Requests	Deleted. Protocol outdated and changes added to the AMA protocol.
Below are some of the protocols/policies designated for review in the next few months. If there are specific protocols/policies recommended for review, please contact ICEMA.		



ANNUAL REVIEW CLASS (ARC)

PURPOSE

To define the eligibility and procedural requirements for the mandatory yearly Annual Review Class (ARC) for the Paramedic (EMT-P) applying for Continuous Accreditation and/or the Mobile Intensive Care Nurse (MICN) applying for Continuous Certification or Inactive MICN status within the ICEMA Region. The Annual Review Class is developed by a multidisciplinary task force and the curriculum approved by the ICEMA Medical Director.

PROCEDURE

1. The authorized class is valid from January 1 through December 31 of each year.
2. It is the responsibility of the individual to take the class during each year of accreditation or certification.
3. Failure to take two (2) different Annual Review Classes during your two (2) years accreditation or certification period will result in the EMT-P or MICN having to successfully pass the ICEMA EMT-P Accreditation/MICN Certification Written Exam with a minimum score of eighty percent (80%). Additionally, financial penalties will apply.
4. The EMT-P or MICN must register and pay the exam fee to ICEMA prior to the scheduled deadline.

CRITERIA FOR TEACHING THE ANNUAL REVIEW CLASS

1. Approved C.E. providers shall request approval from ICEMA to provide the class:
 - a. Submit a completed application to be approved as a training program.
 - b. Application must include a list of your proposed trainers with copies of their resumes attached.
 - c. Pay the ICEMA approved Training Program approval fee.
 - d. Approval is granted for a period of one (1) year.

2. ICEMA should be notified thirty (30) days in advance of the class offering in order to be able to post the class dates, times and locations on the ICEMA website and newsletter.
3. Within fifteen (15) days of class completion, the provider will send the original C.E. roster to ICEMA with the Instructor Evaluation and any other material requested. All other course materials and records will be maintained, for a period of four (4) years, by the approved training program per Protocol Reference #3020, policy for CE Provider Requirements.
4. Continuing Education hours will be granted for the class in accordance to Protocol Reference #3020 Continuing Education Provider Requirements.

DELETED



PROCEDURE FOR ADOPTION OF PROTOCOLS AND POLICIES

I. PURPOSE

To establish procedures for the adoption, ~~amendment-revision~~ or repeal of ICEMA medical control protocols ~~and/or~~ and/or ~~policies and procedures~~.

~~ICEMA recognizes that stakeholder advice and review~~collaboration is an essential component of protocol and ~~policy, procedure and protocol~~ development. The EMS stakeholder review process is advisory to ICEMA for the formulation of ~~prehospital care~~these policies and procedures. ~~Policy~~ICEMA accepts protocol or policy ~~input and/or draft policies are accepted from~~are accepted from standing ICEMA committees, sub-committees, task forces and other individuals and/or interested parties. The ICEMA Medical Director and EMS Administrator are responsible for the development and approval of protocols and/or policies, remain the responsibility of the ICEMA Medical Director and EMS Administrator.

II. AUTHORITY

California Health and Safety Code, Sections 1797.220 and 1798.101(1)

California Code of Regulations, Title 22, Division 9, Chapter 4 Article 2, Sections 100145, 100146, 100148, and 100170

III. DEFINITIONS

Medical Advisory Committee (MAC): Primary committee that advises the ICEMA Medical Director on the clinical or medical aspects of Emergency Medical Services (EMS) within the ICEMA region.

Protocols: Medical standards that provide the framework for the medical treatment and care routinely provided to patients within the ICEMA region.

Policy: Non-medical objectives, principal functions and mode of operations for providers and health care facilities within the ICEMA region.

System Advisory Committee (SAC): Primary committee that advises the ICEMA EMS Administrator on the operational aspects of Emergency Medical Services (EMS) within the ICEMA Region.

IV. POLICY

1. ICEMA will review all protocols ~~on a bi-annual basis~~once a year, annually or more often if as-necessary, to ensure time critical and appropriate policy changes.
2. ~~Policy~~Minor changes to protocols and/or policies may occur without specific review from the public or specific committees. Changes include, but are not limited to:
 - a. Changes in wording necessary to clarify the objective.
 - b. Changes in the listed order for clarity or better flow.
 - c. Changes to assure protocol or policy continuity and consistency.
 - d. Changes required ~~to comply~~to comply with State and local laws and/or regulations s to maintain public health and safety.
 - e. Correction of typographical, grammar, spelling or formatting errors.
 - e.f. Changes required to maintain medical control or system integrity.
3. ICEMA staff shall change, develop, or delete ~~develop an initial protocols and/or policies~~ draft with when needed or requested and/or solicit input from appropriate external agencies, organizations or ~~other from~~ established advisory committees such as those listed below:
 - a. MAC
 - b. SAC
 - c. ST Elevation Myocardial Infarction QI Committee (STEMI QI)
 - d. Neurovascular Stroke QI Committee (Stroke QI)
 - e. Trauma System Advisory Committee (TSAC)
 - f. Trauma Advisory Committee (TAC)
(i.e. TSAC, STEMI, Stroke) ~~as subject matter dictates, and present proposed protocols to the Medical Advisory Committee~~Protocol Education Committee (PEC) for review.
54. ICEMA may forward protocols and policies to The MACPEC will and/or SAC for additional review prior to public comment. MAC or SAC may provide additional input assign to a task force or ad hoc committee and to review and make recommendations on proposed changes to ICEMA its

~~authorizing committee. MAC will determine if draft needs further review by taskforce or ad hoc committee. The review will be completed within the timeframe determined by MAC.~~

- ~~5. If MAC determines no further committee review is required, the protocols will be released for public comment. Following review by appropriate committees, draft protocols will be submitted to the Medical Advisory Committee (MAC).~~
- ~~6. For protocols that do not have significant changes or impact to training, they will be released for public comment prior to going to MAC. The comments will be collected and presented at the next scheduled MAC meeting. Following MAC review, protocols will be released for public comment period.~~
5. ICEMA shall consider all relevant matter presented to it before accepting, amending or repealing any protocol or policy, but the authority for final determination remains with the Medical Director and EMS Administrator.
6. Policies will be released ~~for fifteen (15) to thirty (30) day public comment period. The public comment period may be shortened to 15 days if ICEMA determines the policy or protocol to be time sensitive.~~for a predetermined public comment period as noted under Section VI - Public Comment Period below.
7. Upon closure of the public comment period, ICEMA will prepare a final draft ~~policies/procedures of the protocols/policies (including accepted changes)~~ with a detailed spreadsheet showing the public comment for presentation at the Emergency a subsequent scheduled MAC or SAC meeting for endorsement. Medical Care Committee (EMCC) meetings held in all three counties. Spreadsheet shall include all comments received and ICEMA's response to the comments.
8. Protocols and/or policies that are endorsed by MAC and/or SAC will be presented to the ICEMA Medical Director and EMS Administrator for signature and enactment.
9. Protocols and/or policies, approved by the Medical Director and EMS Administrator, shall become effective no later than thirty (30) days after the date of approval and incorporated into the appropriate protocol/policy manual.
- ~~10. Following endorsement by the EMCC's, policies will be presented to the ICEMA Medical Director and ICEMA Executive Director for signature.~~

- ~~11. Protocols and/or policies approved by the Medical Director and Executive Director shall become effective no sooner than thirty (30) days after the date of approval.~~

V. EMERGENCY PROTOCOLS/POLICIES

1. If ICEMA determines that an emergency protocol or policy is necessary for the immediate preservation of the public health and safety or general welfare, a protocol and/or policy may be adopted, amended or repealed as an emergency action.
2. Any finding of an emergency will include a written statement describing the specific facts showing the need for immediate action. The statement and the protocol or policy shall be immediately forwarded to the MAC and/or SAC and EMS provider agencies (as appropriate) ~~Medical Advisory Committee and appropriate EMS provider agencies~~. The emergency protocol and/or policy will become effective ~~immediately unless otherwise specified~~, no sooner than five (5) days following dissemination to the ICEMA Medical Advisory Committee.
3. Protocols and/or policies adopted under the emergency provision shall remain in effect for approximately one hundred and twenty (120) days to allow for appropriate committee review and public comment period.

VI. PUBLIC COMMENT PERIOD

ICEMA will:

1. Open all changed protocols or policies to public comment for a period of fifteen (15) to thirty (30) days except in instances where the ICEMA ~~Executive Director~~ EMS Administrator and ICEMA Medical Director deem it necessary to shorten the period to protect and/or improve public health and safety or maintain medical control and/or operational integrity.
2. Post proposed changes to protocols and/or policies on the ICEMA website at www.ICEMA.net.
3. E-mail proposed changes to ~~voting~~ members of the Emergency Medical Care Committees, Medical Advisory Committee and/or Systems Advisory Committee.
4. E-mail proposed changes to each EMS provider agency.
5. E-mail proposed changes to ~~every~~ any person who ~~m~~ has filed a request for notification with ICEMA.

6. Make copies of the proposed protocols and/or policies available to the public and stakeholders ~~which is~~ consistent with a policy of encouraging the widest possible notice distribution to interested persons.
7. Any oversight in notification described above shall not invalidate any action taken by ICEMA pursuant to this policy.

VII. CONTENTS OF PUBLIC COMMENT PERIOD NOTIFICATION

1. The notice of proposed adoption, amendment, or repeal of a protocol or policy shall include:
 - a. A statement of the time and place of proceedings for adoption, amendment or repeal of a protocol or policy.
 - b. The name and telephone number of the agency contact person to whom inquiries concerning the proposed action may be directed.
 - c. A date by which comments submitted must be received in writing in order for them to be considered by ICEMA before it adopts, amends, or repeals a protocol or policy.
 - d. The provisions of this section shall not be construed in any manner to invalidate a protocol or policy due to perceived inadequacy of the notice content if there has been substantial compliance with this requirement.

VIII. REQUEST FOR ADOPTION, AMENDMENT OR REPEAL OF PROTOCOL

1. Any ~~interested~~ person may request, ~~in writing,~~ the adoption, amendment, or repeal of a protocol or policy as provided in this section. Such petition shall be in writing and state clearly and concisely state:
 - a. The substance or nature of the protocol or policy, amendment or repeal requested.
 - b. The reason for the request.
 - c. Any supporting documentation and/or research that would support the request.
2. Upon receipt of a written request for the adoption, amendment or repeal of a protocol or policy, ICEMA will notify the petitioner or group in writing of the receipt of the request and then shall, within thirty (30) days, either deny the request, in writing, indicating why the agency has reached such a decision or schedule the protocol/policy for review in accordance with this policy.

3. ICEMA may grant or deny such a request or take such other action as it may determine to be warranted and will notify the petitioner in writing of such action.



SMOKE INHALATION/CO EXPOSURE/SUSPECTED CYANIDE TOXICITY (Expanded Scope Specialty Program)

I. PURPOSE

To identify and treat smoke inhalation and suspected cyanide toxicity.

II. AUTHORITY

California Health and Safety Code, Sections 1797.172 and 1797.185

California Code of Regulations, Title 22, Division 9, Chapter 4

III. FIELD ASSESSMENT/TREATMENT INDICATORS

- Indicators
 - Exposure to fire and smoke particularly in an enclosed-space structure fires.
 - Hydrogen cyanide concentration measured in the air does not accurately correlate to patient's level of exposure and toxicity. Consider possibility of carbon monoxide (CO) and cyanide exposure/toxicity in any patient (or unprotected EMS field personnel) with smoke inhalation.
- Cyanide Toxicity
 - Initial signs and symptoms are non-specific and may include; headache, dizziness, nausea, vomiting, confusion, and syncope.
 - Worsening signs and symptoms may include; altered level of consciousness (ALOC), hypotension, shortness of breath, seizures, cardiac dysrhythmias, and cardiac arrest.
 - The "bitter almond" smell on the breath of a cyanide-poisoned patient is neither sensitive nor specific and should not be considered in making the assessment.
- Carbon Monoxide Poisoning
 - Initial signs and symptoms are non-specific and may include; flu like symptoms, dizziness, severe headache, nausea, sleepiness, weakness and disorientation.

- Worsening signs and symptoms may include; blurred vision, shortness of breath, and altered level of consciousness.

IV. ALS INTERVENTIONS

- Remove patient from exposure area.
- Administer 100% oxygen via non-rebreather mask.
- Monitor pulse oximetry (SpO₂) though values may be unreliable in patients suffering from smoke inhalation.
- Monitor Carboxyhemoglobin (SpCO) levels. (SpCO monitor is required for participation in this Specialty program.)
- IV access, consider fluid bolus of 300cc NS.
- Patients exhibiting signs and symptoms of cyanide toxicity which persist after treatment with 100% oxygen therapy should be treated rapidly with the Cyanokit.
 - Administer Hydroxocobalamin.
 - Dosage: 5 gm IV over 15 minutes. May repeat one (1) time with base hospital orders. Second dose given over 15 minutes to 2 hours depending on the response to the first dose.
 - Reconstitute: Place the vial in an upright position. Add 200 mL of 0.9% Sodium Chloride Injection (not included in the kit) to the vial using the transfer spike. Fill to the line.
 - Mix: The vial should be repeatedly inverted or rocked, not shaken, for at least 60 seconds prior to infusion.
 - Infuse Vial: Use vented intravenous tubing, hang and infuse over 15 minutes.
- Use BVM with airway adjuncts as needed. Consider advanced airway if indicated.
- Refer to ICEMA Reference #11010 - Adult Respiratory Emergencies, for treatment of bronchospasm as indicated by wheezing
- Ensure rapid transport to closest receiving emergency department. In patients with SpCO of > 25% (> 15% if pregnant) or signs and symptoms of worsening CO poisoning, consider transport to a hyperbaric facility.

V. REFERENCE

<u>Number</u>	<u>Name</u>
11010	Adult Respiratory Emergencies



BLS/LALS/ALS STANDARD DRUG & EQUIPMENT LIST

Each ambulance and first responder unit ~~will~~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) 6mg			1	1
Adenosine (Adenocard) 12mg			2	2
Albuterol Aerosolized Solution (Proventil) - unit dose 2.5mg		4 doses	4 doses	4 doses
Aspirin, chewable - 81mg tablet		2	1 bottle	1 bottle
Atropine 1 mg preload			2	2
Calcium Chloride 1gm preload			1	1
Dextrose 25% 2.5gm preload			2	2
Dextrose 50% 25gm preload		2	2	2
Diphenhydramine (Benadryl) 50mg			1	1
Dopamine 400mg			1	1
Epinephrine 1:1000 1mg		2	2	2
Epinephrine 1:10,000 1 mg preload			3	3
Glucagon 1mg		1	1	1
Glucose paste	1 tube	1 tube	1 tube	1 tube
Ipratropium Bromide Inhalation Solution (Atrovent) unit dose 0.5mg			4	4
Irrigating Saline and/or Sterile Water (1000cc)	2	1	1	2
Lidocaine 100mg			3	3
Lidocaine 1gm or 1 bag pre-mixed 1gm/250cc D5W			1	1
Lidocaine 2% (Viscous) bottle			1	1
Magnesium Sulfate 10 gm			1	1
Naloxone (Narcan) 2 mg preload (needle less)		2	2	2
Nitroglycerine - Spray 0.4 mg metered dose and/or tablets (tablets to be discarded 90 days after opening)		2	1	2
Normal Saline for Injection (10 cc)		2	2	2
Normal Saline 100 cc			1	2

Exchanged Medications/Solutions	BLS	LALS	ALS Non-Transport	ALS Transport
Normal Saline 250 cc			1	1
Normal Saline 500 ml and/or 1000 ml		2000 ml	3000 ml	6000 ml
Ondansetron (Zofran) 4 mg Oral Disintegrating Tablets (ODT)			4	4
Ondansetron (Zofran) 4 mg IM/ IV			4	4
Phenylephrine HCL - 0.5 mg per metered dose			1 bottle	1 bottle
Procainamide 1 gm			1	2
Sodium Bicarbonate 50 mEq preload			2	2
Verapamil 5 mg			3	3

CONTROLLED SUBSTANCE MEDICATIONS

Non-Exchange Controlled Substance Medications MUST BE DOUBLE LOCKED	BLS	LALS	ALS Non-Transport	ALS Transport
Midazolam			20-40mg	20-40mg
Morphine Sulfate -vials of 10 mg			20-60mg	30-60mg

AIRWAY/SUCTION EQUIPMENT

Exchanged Airway/Suction Equipment	BLS	LALS	ALS Non-Transport	ALS Transport
BAAM Device			1	2
CPAP circuits - all manufacture's available sizes			1 each	2 each
End Title CO2 device - Pediatric and Adult (may be integrated into bag)			1 each	1 each
Endotracheal Tubes cuffed - 6.0 and/or 6.5, 7.0 and/or 7.5 and 8.0 and/or 8.5 with stylet			2 each	2 each
Endotracheal Tubes, uncuffed - 2.5, 3.0, 3.5 with stylet			2 each	2 each
Endotracheal Tubes, uncuffed - 4.0 or 4.5, 5.0 or 5.5 with stylet			2 each	2 each
ET Tube holders - pediatric and adult		1 each	1 each	2 each
King LTS-D Adult: Size 3 (yellow) Size 4 (red) Size 5 (purple)	SPECIALTY PROGRAMS ONLY 2 each	1 each	1 each	2 each
King Ped: 12-25 kg: Size 2 (green) 25-35 kg: Size 2.5 (orange)	SPECIALTY PROGRAMS ONLY 2 each	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

Exchanged Airway/Suction Equipment	BLS	LALS	ALS Non-Transport	ALS Transport
Naso/Orogastric feeding tubes - 5fr or 6fr, and 8fr			1 each	1 each
Naso/Orogastric tubes - 10fr or 12fr, 14fr, 16fr or 18fr			1 each	1 each
Nasopharyngeal Airways - (infant, child, and adult)	1 each	1 each	1 each	1 each
Needle Cricothyrotomy Device - Pediatric and adult or Needles for procedure 10, 12, 14 and/or 16 gauge			1 each 2 each	1 each 2 each
One way flutter valve with adapter or equivalent			1	1
Oropharyngeal Airways - (infant, child, and adult)	1 each	1 each	1 each	1 each
Small volume nebulizer with universal cuff adaptor		2	2	2
Suction Canister	1		1	1
Suction catheters - 6fr, 8fr or 10fr, 12fr or 14fr	1 each		1 each	1 each
Ventilation Bags - Infant 250 ml Pediatric 500 ml (or equivalent) Adult	1 1 1	1 1 1	1 1 1	1 1 1
Water soluble lubricating jelly		1	1	1
Yankauers tonsil tip	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
Laryngeal blades - #0, #1, #2, #3, #4 curved and/or straight			1 each	1 each
Laryngoscope handle with batteries - or 2 disposable handles			1	1
Magill Forceps - Pediatric and Adult			1 each	1 each
Manual powered suction device		1		
Portable oxygen with regulator - 10 L /min for 20 minutes	1	1	1	1
Portable suction device (battery operated)	1		1	1
Pulse Oximetry device		(SEE OPTIONAL EQUIPMENT SECTION, PG. 5) 1	1	1
Stethoscope	1	1	1	1
Wall mount suction device	1			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
EZ-IO Needles and Driver 15 mm, 25 mm, and 45 mm			2 each 1 each	2 each 1 each
Glucose monitoring device with compatible strips and OSHA approved single use lancets		1	1	1
3-way stopcock with extension tubing			2	2
IV Catheters - sizes 14, 16, 18, 20, 22, 24		2 each	2 each	2 each
Macro drip Administration Set (10 drops /cc)		3	3	3
Micro drip Administration Set (60 drops /cc)		1	1	2
Mucosal Atomizer Device (MAD) for nasal administration of medication		2	2	4
Pressure Infusion Bag (disposable)		1	1	1
Razors		1	2	2
Safety Needles - 20 or 21 gauge and 23 or 25 gauge		2 each	2 each	2 each
Saline Lock Large Bore Tubing 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	1	1	1	1
Capnography monitor and supplies, may be integrated in the cardiac monitor			<u>1</u>	<u>1</u>
Needle disposal system (OSHA approved)		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	2	2		
Ammonia Inhalants			2	2
Approved Automatic CPR device (FDA approved)	1	1	1	1
Approved Automatic ventilator (ICEMA approved)			1	1
Backboard padding	1	1	1	1
Buretrol			1	1
Capnography monitor and supplies, may be integrated in the cardiac monitor			1	1
Chemistry profile tubes			3	3
<u>CyanoKit (Specialty Program Only)</u>			1	1
EMS Tourniquet	1		1	1
Gum Elastic intubation stylet			2	2
Hemostatic Dressings *	1	1	1	1
IO Needles - Manual, Adult and Pediatric, Optional			1 each	1 each
IV infusion pump			1	1
IV warming device		1	1	1
Manual IV Flow Rate Control Device			1	1
Manual powered suction device	1	1	1	1
Multi-lumen peripheral catheter			2	2
Needle Thoracostomy Kit (prepackaged)			2	2
Pitocin			20 units	20 units
Pulse Oximetry device	1			
Translaryngeal Jet Ventilation Device			1	1
Vacutainer			1	1

* Hemostatic Dressings

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

Note:

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

DRESSING MATERIALS/OTHER EQUIPMENT/SUPPLIES

Exchanged Dressing Materials/Other Equipment/Supplies	BLS	LALS	ALS Non-Transport	ALS Transport
Adhesive tape - 1 inch	2	2	2	2
Air occlusive dressing (Vaseline gauze)	1	1	1	1
Ankle & wrist restraints, soft ties acceptable	1		0	1
Antiseptic swabs/wipes		10	10	10
Bedpan or fracture pan	1			1
Urinal	1			1
Cervical Collars - Rigid Pediatric & Adult or Cervical Collars - Adjustable Adult & Pediatric	2 each	2 each	2 each	2 each
Cold Packs	2	2	2	2
Emesis basin or disposable bags & 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		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
<u>\$00 MHz Radio</u>		<u>1</u>	<u>1</u>	<u>1</u>
Ambulance gurney	1			1
Bandage Shears	1	1	1	1
Blood Borne Pathogen Protective Equipment - (nonporous gloves, goggles face masks & gowns meeting OSHA Standards)	2	1	2	2
Drinkable water in secured plastic container or equivalent	1 gallon			1 gallon
Long board with restraint straps	1	1	1	1
Pediatric immobilization board	1	1	1	1
Pillow, pillow case, sheets & blanket	1 set			1 set
Short extrication device	1	1	1	1
Straps to secure patient to gurney	1 set			1 set

Non-Exchange Dressing Materials/Other Equipment/Supplies	BLS	LALS	ALS Non-Transport	ALS Transport
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 ~~will~~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	30 mg
Adrenaline (Epinephrine) 1:1,000	2 mg
Adrenaline (Epinephrine) 1:10,000	3 mg
Albuterol Aerosolized Solution (Proventil) - unit dose 2.5 mg	4 doses
Aspirin, chewable - 81 mg tablet	1 bottle
Atropine 1 mg preload	3 mg
Calcium Chloride	1 gm
Dextrose 25%	5 gm
Dextrose 50%	50 gm
Diphenhydramine (Benadryl) 50 mg	50 mg
Glucagon	1 mg
Glucopaste	1 tube
Intropin (Dopamine)	200 mg
Ipratropium Bromide Inhalation Solution (Atrovent) unit dose 0.5 mg	4
Lidocaine	300 mg
Lidocaine 1 gm or 1 bag pre-mixed 1 gm/250 cc D5W	1 gm
Lidocaine 2% (Viscous)	2 oz
Magnesium Sulfate 10 mg	10 gms
Naloxone (Narcan)	4 mg
Nitroglycerin - Spray 0.4 mg metered dose and/or tablets (tablets to be discarded 90 days after opening.)	1
Normal Saline for Injection (10 cc)	2
Normal Saline 250 ml	1
Normal Saline 500 ml and/or 1000 ml	4000 ml
Ondansetron (Zofran) 4 mg Oral Disintegrating Tablets (ODT)	4
Ondansetron (Zofran) 4 mg IM/ IV	4
Phenylephrine HCL - 0.5 mg per metered dose	1 bottle
Procainamide	1 gm
Sodium Bicarbonate	100 mEq
Verapamil (Isoptin)	15 mg

CONTROLLED SUBSTANCE MEDICATIONS-MUST BE DOUBLE LOCKED	AMOUNT
Midazolam	20-40 mg
Morphine Sulfate - vials 10 mg	20-60 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-title CO2 device - pediatric and adult (may be integrated into bag)	1 each
Endotracheal tubes, uncuffed - 2.5, 3.0, 3.5 with stylet	2 each
Endotracheal Tubes, uncuffed - 4.0 or 4.5, 5.0 or 5.5 with stylet	2 each
Endotracheal Tubes cuffed - 6.0 and/or 6.5, 7.0 and/or 7.5 and 8.0 and/or 8.5 with stylet	2 each
ET Tube holders - pediatric and adult	1 each
Flashlight/penlight	1
King LTS-D Adult: Size 3 (yellow) Size 4 (red) Size 5 (purple)	1 each
King Ped: 12-25 kg: Size 2 (green) 25-35 kg: Size 2.5 (orange)	1 each
Laryngoscope handle with batteries - or 2 disposable handles	1
Laryngeal blades - #0, #1, #2, #3, #4 curved and/or straight	1 each
Magill Forceps - Pediatric and Adult	1 each
Nasal Cannulas - infant, pediatric and adult	2 each
Naso/Orogastric tubes - 10fr or 12fr, 14fr, 16fr or 18fr	1 each
Naso/Orogastric feeding tubes - 5fr or 6fr, and 8fr	1 each
Nasopharyngeal Airways - infant, child, and adult	1 each
Needle Cricothyrotomy Device (Approved) - Pediatric and adult <i>or</i>	1 each
Needles for procedure 10, 12, 14 and/or 16 gauge	2 each
Non Re-Breather O 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) <i>and/or</i> Wall mount suction device	1 each
Pulse Oximetry device	1
Small volume nebulizer with universal cuff adaptor	2
Stethoscope	1
Suction catheters - 6fr, 8fr or 10fr, 12fr or 14fr	1 each
Ventilation Bags - Infant 250 ml, Pediatric 500 ml and Adult 1 L	1 each
Water soluble lubricating jelly	1
Yankauers tonsil tip	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 <i>or</i> Adult and Pediatric Pacer/Defibrillation pads	2 each
ECG - Pediatric and Adult	20 patches
EZ IO Needles and Driver 15 mm, 25 mm, and 45 mm	2 each 1 each
3-way stopcock with extension tubing	2
IO Needles - Manual, Adult and Pediatric, Optional	1 each
IV Catheters - sizes 14, 16, 18, 20, 22, 24	2 each
Glucose monitoring device	1
Macro drip Administration Set (10 drops/ml)	3
Micro drip Administration Set (60 drops/ml)	1
Mucosal Atomizer Device (MAD) for nasal administration of medication	4
Needle disposal system (OSHA approved)	1
Pressure infusion bag	1
Safety Needles - 20 or 21 gauge and 23 or 25 gauge	2 each
Saline Lock	2
Syringes w/wo safety needles - 1 ml, 3 ml, 10 ml, 20 ml, 60 ml catheter tip	2 each
Thermometer - Mercury free with covers	1

OPTIONAL EQUIPMENT/MEDICATIONS	Amount
Ammonia Inhalants	2
Automatic ventilator (Approved)	1
Backboard padding	1
BLS AED/defib pads	1
Capnography monitor and supplies, may be integrated in the cardiac monitor	1
Chemistry profile tubes	3
CyanoKit (Specialty Program Only)	1
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
Pitocin	2
Translaryngeal Jet Ventilation Device	1
Vacutainer	1

* Hemostatic Dressings

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

Note:

- The above products are “packaged” in various forms (i.e., Z-fold, rolled gauze, trauma pads, 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	AMOUNT
Adhesive tape - 1 inch	2
Air occlusive dressing (Vaseline gauze)	1
Aircraft stretcher or litter system with approved FAA straps that allows for Axial Spinal Immobilization	1
Ankle & 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 & gowns meeting OSHA Standards)	2
Cervical Collars - Rigid Pediatric & Adult <i>or</i>	2 each
Cervical Collars - Adjustable Adult & Pediatric	2 each
Emesis basin or disposable bags & covered waste container	1
Head immobilization device	2
OB Kit	1
Pediatric immobilization board	1
Pneumatic or rigid splints capable of splinting all extremities	4
Providence/Iodine swabs/wipes	
Roller bandages - 4 inch	3
Short extrication device	1
Sterile bandage compress or equivalent	6
Sterile gauze pads - 4x4 inch	4
Sterile Sheet for Burns	2
Traction splint	1
Universal Dressing 10x30 inches	2



CONTROLLED SUBSTANCE POLICY

I. **PURPOSE**

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

II. **AUTHORITY**

[California Code of Regulations Title 22, Division 9, Chapter 4, Article 7, Section 100168](#)

III. **POLICY**

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

All ALS providers ~~will~~ shall develop policies compliant with [The Controlled Substances Act Title 21, United States Code \(USC\) and California Code of Regulations Title 22, Division 9, Chapter 4, Article 7, Section 100168.](#) ~~Chapter 13 of the Federal Controlled Substance Act.~~ These policies must ensure that security mechanisms and procedures are established for controlled substances, including, but not limited to: clearly outline the procedure for procurement, receipt, distribution, waste management and associated record keeping for the controlled substances purchased under their DEA registration number.

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

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

- Controlled substance testing
- Discrepancy reporting
- Tampering, theft and diversion prevention and detection
- Usage audits

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

IV. PROCEDURE

All controlled substances ~~will~~shall:

1. Be purchased and stored in tamper evident containers.
2. Be stored in a secure and accountable manner.
3. Be kept under a “double lock” system at all times.
4. Be ~~reconciled~~counted a minimum of daily at a minimum or at any change of shift or change in personnel.

V. REQUIRED DOCUMENTATION

1. ALS providers must maintain a log of all purchased controlled substances for a period of no less than two (2) years.
2. All controlled substance usage will be documented ~~in~~on all patient care ~~records~~records (PCR) or electronic patient care reports (ePCR).
3. All wasted portions of controlled substances must be witnessed and documented by at least two (2) licensed EMS field personnel~~providers~~ (both ~~providers~~ must sign the log~~).~~ and appropriate sections of the PCR or ePCR.
4. In the event of breakage of a narcotic container an incident report will be completed and the damage reported to the appropriate supervisor.
5. Discrepancies in the narcotic count will be reported immediately to the appropriate supervisor and a written report must be submitted.

SAMPLE DAILY LOG

Agency: _____

Month: _____ Year: _____

Double Lock

Shift Change Medic

Date

In Place

Midazolam 5mg

On

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



DESTINATION POLICY

I. PURPOSE

To ensure the transportation of 9-1-1 patients to the most appropriate receiving facility that has the staff and resources to deliver definitive care to the patient.

II. AUTHORITY

California Health and Safety Code, Division 2.5, [Chapter 4, Section 1797.220](#),

California Code of Regulations, Title 22 Chapters 4, 7 and 8

III. DEFINITIONS

Aircraft Dispatch Center (ADC): An ICEMA designated dispatch center which dispatches and coordinates air ambulance and/or air rescue aircraft response to the scene of a medical emergency within the ICEMA region.

Adult Patient: A person who is or is appearing to be older than 15 years of age.

Burn Patient: Patients meeting ICEMA's burn classifications minor, moderate or major, [per ICEMA Reference #11100 - Burn - Adult \(15 years of age or older\) and #14070 - Burn - Pediatrics](#).

~~**CME:** Continuous Medical Education.~~

~~**CQI:** Continuous Quality Improvement.~~

Critical Trauma Patient (CTP): Patients meeting ICEMA's trauma triage criteria ~~(anatomic, physiologic, and/or mechanism of injury)~~ [per ICEMA Reference # 15030 - Trauma Triage Criteria and Destination Policy following a traumatic event](#).

~~**EMS:** Emergency Medical Services.~~

~~**Inadequate Tissue Perfusion:** Evidenced by the presence of cold, pale, clammy, mottled skin, and/or capillary refill time greater than two (2) seconds. Pulse rate will increase in an attempt to pump more blood. As the pulse gradually increases (tachycardia), it becomes weak and thready. Blood pressure is one of the last signs to change (hypotension). Altered level of consciousness may also be an indicator to inadequate tissue perfusion, especially in the very young.~~

Neurovascular Stroke Receiving Center (NSRC): A licensed acute care hospital designated by ICEMA's Governing Board as a receiving hospital for patients triaged as having a cerebral vascular event requiring hospitalization for treatment, evaluation and /or management of stroke.

~~**NSRC-Neurovascular Stroke Base Hospital:** Facilities that have been designated by ICEMA's Governing Board as a Neurovascular Receiving Hospital that also function as a base hospital.~~

~~**PCI: Percutaneous Coronary Intervention.**~~

Pediatric Patient: A person who is or is appearing to be under 15 years of age.

Pediatric Trauma Center: A licensed acute care hospital which usually treats (but is not limited to) persons under 15 years of age, designated by ICEMA's Governing Board that meets all relevant criteria, and has been designated as a pediatric trauma hospital, according to California Code of Regulations, Title 22, Division 9, Chapter 7, Section 100261.

~~**ST Elevation Myocardial Infarction (STEMI): A medical term for a type of myocardial infarction that results in an elevation of the ST Segment on a 12-Lead electro-cardiogram (ECG).**~~

STEMI Base Hospital: Facilities that have emergency interventional cardiac catheterization capabilities that also function as a base hospital.

STEMI Receiving Center (SRC): A licensed general acute care hospital designated by ICEMA's Governing Board as a STEMI Receiving Center that has emergency interventional cardiac catheterization capabilities.

STEMI Referring Hospital: Facilities that do not have emergency interventional cardiac catheterization capabilities.

~~**STEMI: ST Elevation Myocardial Infarction.**~~

Trauma Center: A licensed general acute care hospital designated by ICEMA's Governing Board as a trauma hospital in accordance with State laws and regulations.

IV. POLICY

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

If a patient requires specialty care at an ICEMA designated STEMI, Stroke, Trauma or other approved specialty center, the EMS provider may bypass closer facilities for another facility having the specialty services needed by the patient. Destination for specialty patients requires contact with an appropriate specialty base hospital.

All destination decisions should be based on patient condition or patient and/or family request. Patients unable to, or without a preference should be taken to the closest hospital unless their condition requires specialty services as described below.

If directed by the base hospital physician, an EMS transport provider may bypass a closer facility.

V. GENERAL CONSIDERATIONS

- Closest Hospital
 - All patients requiring immediate medical attention for life threatening conditions.
 - Patients without destination preference.
- Patient Request
 - Patient requests should be honored if possible and appropriate.
 - Patient requests for specific destination may be accommodated if patient is medically stable and the destination is not outside of the unit's response area.
- Protocol
 - Destination may be determined by considering special care needs such as Trauma, STEMI or Stroke listed in the appropriate protocol.
- Higher Level of Care
 - May be dictated by patient condition and base hospital direction.
 - Allows ALS providers to bypass a closer facility in favor of a facility that has the capability of a specialty response to the patient's condition.
- Base Hospital
 - Final authority for destination determination is the base hospital.
 - Base hospital physician may override prior destination decisions made by the paramedic (EMT-P) or protocol.

VI. PSYCHIATRIC HOLDS

- All patients on a psychiatric hold (5150) who require medical evaluation and treatment shall be transported to the closest ~~facility~~ acute care hospital for medical clearance.
- Any acute care hospital is capable of medically clearing psychiatric patients.
- Patients on a psychiatric hold with no medical complaints or conditions may be released to law enforcement for transported directly to a psychiatric facility that has the capacity to accept the patient.

VII. DIVERSION (Refer to ICEMA Reference #8060 - Requests for Hospital Diversion Policy - San Bernardino County Only)

- Diversion of ALS ambulances is limited by ICEMA, refer to ICEMA Reference #8060 - Requests for Hospital Diversion Policy (San Bernardino County Only).
- Ambulance diversion to another acute care hospital is not allowed in the ICEMA region based on hospital census or staffing.
- A patient may be directed to a hospital on diversion if it is in the best interest of the patient and the hospital has not declared an internal disaster.
- ~~Final destination of a LALS or ALS ambulance rests with the base hospital.~~
 - The base hospital determines final destination of Acute Life Support (ALS) or Limited Acute Life Support (L-ALS) patients.
 - BLS ambulances may not be diverted from their intended destination unless the hospital is on internal disaster.

VIII. SPECIALTY SERVICES

- SRCs: ~~ST Elevation Myocardial Infraction (STEMI) Receiving Centers~~ Refer to ICEMA Reference #6070 - Cardiovascular STEMI Receiving Centers.
 - A Cardiovascular STEMI Receiving Center (SRC) ~~will be~~ the preferred destination for patients who access the 9-1-1 system meeting defined criteria and show evidence of a ST elevation myocardial infarction (STEMI) on a 12-lead electrocardiogram (ECG). These patients will benefit from rapid interventions via cardiac catheterization interventions.
 - Once a patient with STEMI has been identified, contact a STEMI base hospital ~~contact should be made~~ for destination decision ~~while and preparing~~ prepare the patient for expeditious transport. In Inyo and Mono Counties, the assigned base hospital should be contacted for STEMI consultation.

- Consider transporting patients that suffer out-of-hospital cardiac arrest, with or without return of spontaneous circulation (ROSC), to the closest STEMI receiving hospital, after contact with a STEMI base hospital for destination determination.
- ~~➤ Refer to ICEMA Reference #6070 – Cardiovascular STEMI Receiving Centers.~~
- NSRCs: Refer to ICEMA Reference #11110 - Stroke Treatment - Adult (15 years of age and older).
 - A NSRC should be considered as the destination of choice for all patient meeting Stroke triage criteria.
 - Once a patient with a stroke has been identified, contact a NSRC base hospital ~~contact should be made~~ for destination decision ~~while and preparing~~ prepare the patient for expeditious transport. In Inyo and Mono Counties, the assigned base hospital should be contacted for stroke consultation.
 - ~~➤ Refer to ICEMA Reference #11110 – Stroke Treatment – Adult (15 years of age and older).~~
- Trauma: (Refer to ICEMA Reference #15030 -Trauma Triage Criteria and Destination Policy.)
 - Adult patients meeting trauma triage criteria shall be transported to the closest Trauma Center.
 - Transport pPediatric patients meeting trauma triage criteria shall be transported to a pediatric Trauma Center when there is less than a twenty (20) minute difference in transport time ~~to~~ between the pediatric Trauma Center ~~versus~~ and the closest Trauma Center.
 - ~~Patients~~ Transport patients meeting the physiologic and/or anatomic criteria ~~will be transported~~ to the closest Trauma Center.
 - Patients meeting the mechanism of injury and either the physiologic or anatomic criteria will be transport to the closest Trauma Center.
 - If there are no associated physiologic or anatomic criteria and the potential trauma patient meets one or more of the mechanisms of injury contact a trauma base hospital to determine patient destination. Patient may be directed to a non-trauma receiving hospital.

- Make trauma base hospital contact to determine if a Trauma Center should be the destination for patients not meeting the trauma triage criteria ~~above~~ but meeting ing age and/or co-morbid factors.
- Patients with unmanageable airway or traumatic cardiac arrest should be transported to the closest receiving hospital if indicated. Trauma base hospital contact shall be made.
- ~~➤ Trauma triage criteria is established per ICEMA Reference #15030 - Trauma Triage Criteria and Destination Policy.~~
- ~~➤ Hospital trauma diversion status, refer to ICEMA Reference #8060 - Requests for Hospital Diversion Policy (San Bernardino County Only).~~
- ~~➤ Multi-Casualty Incident, refer to ICEMA Reference #5050 - Medical Response to a Multi-Casualty Incident Policy.~~
- ~~➤ When estimated transport to the most appropriate Trauma Center (for patients identified as a CTP) is thirty (30) minutes or less, ground ambulance shall be the primary means of transport. EMS Aircraft transport shall not be used unless ground transport is expected to be greater than thirty (30) minutes and EMS Aircraft transport is expected to be significantly more expeditious than ground transport.~~
- Burn: (Refer to ICEMA Reference #15030 - Trauma Triage Criteria and Destination Policy.)
 - Burn patients meeting the physiologic or anatomic criteria for CTP shall be transported to the closest Trauma Center. ~~Refer to ICEMA Reference #15030 - Trauma Triage Criteria and Destination Policy.~~
 - Burn patients meeting minor or moderate classifications shall be transported to the closest receiving hospital.
 - Burn patients meeting major burn classification may be transported to the closest burn center (in San Bernardino County contact ARMC Arrowhead Regional Medical Center).
 - Pediatric burn patients identified as a CTP should always be transported to the closest Trauma Center with or without burn capabilities. When there is less than twenty (20) minutes difference in transport time, a pediatric Trauma Center is the preferred destination.
 - Burn patients with respiratory compromise, or potential for such, will be transported to the closest receiving acute care receiving hospital for airway stabilization.

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

- Patients will go to the designated destination facility regardless of patients' prior condition. ~~Change of destination to closer facility is warranted only in the event of the~~Patients may only be diverted if—patients' condition ~~deteriorating~~ deteriorates significantly while in the care of EMS.
- ~~If the patient's condition deteriorates, AEMTs-Advanced EMTs~~ and EMT-Ps may start prior-to- contact protocols before contacting the base hospital for change of destination if the patient's condition deteriorates significantly.
- ~~Refer to ICEMA Reference #8010—Interfacility Transfer Guidelines.~~

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

- All EMS Aircraft requests from the field in San Bernardino County will be dispatched by the ICEMA designated Aircraft Dispatch Center (ADC).
- The destination may be changed by the EMS providers based on patient requirements for specialty centers.
- Refer to ICEMA Reference #8070 - Aircraft Rotation Policy (San Bernardino County Only).

XI. REFERENCE

<u>Number</u>	<u>Name</u>
5050	Medical Response to a Multi-Casualty Incident Policy
<u>6070</u>	<u>Cardiovascular STEMI Receiving Centers.</u>
8010	Interfacility Transfer Guidelines
8060	Requests for Hospital Diversion Policy (San Bernardino County Only).
8070	Aircraft Rotation Policy (San Bernardino County Only)
<u>11100</u>	<u>Burn - Adult (15 years of age or older)</u>
11110	Stroke Treatment - Adult
<u>14070</u>	<u>Burn - Pediatrics</u>
15030	Trauma Triage Criteria and Destination Policy



PATIENT REFUSAL OF CARE - ADULT

I. PURPOSE

To provide ~~guidance~~ direction for EMS ~~field P~~ personnel when an individual refuses their advice that treatment and/or transport is indicated. ~~whose advice to an individual for treatment and/or transport is being refused~~

II. AUTHORITY

California Health and Safety Code, Division 2.5, Section 1797.220

III. DEFINITIONS

Against Medical Advice (AMA): A term used to when an individual refuses treatment and/or transport after EMS field personnel advise that it is indicated.

Consent: Consent is defined as the agreement and acceptance as to opinion or course of action.

Emergency: A condition or situation in which an individual has a need for immediate medical attention, or where the potential for such need is perceived by emergency medical personnel or a public safety agency. (California Health and Safety Code, Division 2.5, Section 1797.70) ~~The American Ambulance Association (AAA) defines an "emergency" as "unforeseen condition of a pathophysiological nature, which a prudent layperson, possessing an average knowledge of health and medicine, would judge to require urgent and unscheduled medical attention."~~

IV. PRINCIPLE

If a competent, conscious patient or legal guardian refuses care offered, or requests to be transported to a hospital other than the nearest, medically appropriate facility, the patient's request should be honored, when possible.

All AMAs shall be fully documented to acknowledge that the individual may benefit from assessment, treatment and/or transport refused the advice of EMS field personnel. Documentation shall acknowledge that the advice is to protect the individual and the EMS services and that the decision was that of the individual.

EMS field personnel Providers may refuse a request to transport a patient to a more distant facility that is outside of their service area provided they offer transportation to an appropriate medical facility. In the event the patient or legal guardian insists upon transport and the transporting ambulance agrees to transport to a more distant

facility, the signature of the patient or legal guardian must be obtained on the patient care record and base hospital contact made.

V. CONSENT

1. Immediately required treatment should not be delayed to obtain consent.
2. An individual has the responsibility to consent to or refuse treatment. If he/she is unable to do so, consent is then considered implied.
3. In non-emergency cases, consent should be obtained from the individual.
4. For treatment of minors or a definition of emancipated minors refer to ICEMA Protocol Reference #9080 - Care of Minors in the Field.

VI. MENTAL COMPETENCE

1. An individual is mentally competent if he or she:
 - a. Is capable of understanding the nature and consequences of the proposed treatment.
 - b. Has sufficient emotional control, judgment and discretion to manage his or her own affairs.
2. An individual having an understanding of what may happen if treated or not treated, and is oriented to person, place, time and purpose.
3. An individual with an altered level of consciousness will be unlikely to fulfill these criteria.
4. If the individual is not deemed mentally competent, the person should be treated and transported. Attempt to obtain law enforcement concurrence in these circumstances.

VII. REFUSAL OF CARE DOCUMENTATION

The following information should be carefully documented on the patient care record:

1. The individual's chief complaint, mechanism of injury, level of orientation/level of consciousness.
2. Base ~~hospital~~ Station ~~C~~contact per ICEMA Protocol Reference #5040 - Radio Communication Policy.
3. Any medical treatment or evaluation needed and refused.

4. The need for emergency transportation; also if transport by means other than an ambulance could be hazardous due to the individual's injury or illness.
5. Individual advised that potential harm could result without emergency medical treatment and/or transport.
6. Individual provided with a refusal advice sheet, and if he or she would accept the refusal advice sheet.
7. A copy of the patient care record with the individual's signature of refusal will be kept by the EMS provider agency per ICEMA Protocol Reference #2010 - Requirements for Patient Care Records.

DEFINITIONS

~~**AMA:** A term used to designate "against medical advice".~~

~~**Consent:** Consent is defined as the agreement and acceptance as to opinion or course of action.~~

~~**Emergency:** The American Ambulance Association (AAA) defines an "emergency" as "unforeseen condition of a pathophysiological nature, which a prudent layperson, possessing an average knowledge of health and medicine, would judge to require urgent and unscheduled medical attention."~~

V. REFERENCE

<u>Number</u>	<u>Name</u>
<u>2010</u>	<u>Requirements for Patient Care Records</u>
<u>5040</u>	<u>Radio Communication Policy</u>
<u>9080</u>	<u>Care of Minors in the Field</u>



PATIENT REFUSAL OF CARE OR OTHER PATIENT REQUEST

Prehospital personnel should be sensitive to the needs and concerns of the patient and the patient's family. In the event that a competent, conscious patient or legal guardian refuses care offered, or requests to be transported to a hospital other than the nearest, medically appropriate facility, the patient's request should be met.

In the event that a patient refuses treatment, transport, or transport to a medically appropriate destination, the signature of the patient or legal guardian must be obtained on the patient care record. Base Hospital Contact should be made if in the EMT-P's judgment the patient's condition warrants the treatment and/or transport being refused. All patient contacts must be documented on the appropriate patient care record. Patient care records shall be reviewed by the provider agency in accordance with the EMS Quality Improvement Plan and subsequently forwarded to ICEMA.

Providers may refuse a request to transport a patient to a more distant facility if it lies outside of their service area provided they offer transportation to an appropriate medical facility. In the event the patient or legal guardian insists upon transport and the transporting ambulance agrees to transport to a more distant facility, the signature of the patient or legal guardian must be obtained on the patient care record and Base Hospital Contact made.

DELETED



ICEMA APPROVED SKILLS

I. POLICY

To provide a list of ICEMA approved skills and affected scope of practice.

II. AUTHORITY

California Health and Safety Code, Sections 1797.214

California Code of Regulations, Title 22, Division 9, Chapters 2, 3, and 4

III. SKILLS

12-lead Electrocardiography (EMT-P)

- ECG should be performed prior to medication administration.

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

- If patient meets the Neuro deficits present, Spinal Tenderness, Altered Mental status, Intoxication, Distracting Injury (NSAID) criteria per ICEMA Reference #15010 - Trauma - Adult (15 years of age or older).
- An AEMT and/or EMT-P may remove if placed by BLS crew and it does not meet criteria.

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 H₂O is reached.

External Jugular Vein Access (AEMT and EMT-P)

- Not indicated for patients eight (8) years of age and younger.

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

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

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

- Patients 15 years or older.
- Anyone over four (4) feet in height.

King Airway Device (Perilaryngeal) - Pediatric (EMT Specialty program, AEMT, EMT-P)

- Patients less than 15 years of age.
- May initially be contraindicated with suspected ALOC.

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 (EMT-P)

- Absolute contraindication: Apnea.
- Base hospital contact required: Facial trauma, anticoagulant therapy, airway burns, failed CPAP.
- Prophylactic Lidocaine per ICEMA Reference #7040 - Medication - Standard Orders, for suspected head/brain injury.

Needle Cricothyrotomy (EMT-P)

- Absolute contraindication: Transection of the trachea.

Needle Thoracostomy (EMT-P)

- In blunt chest trauma consider bilateral tension pneumothorax if pulse oximetry (SpO₂) reading remains low with a patent airway or with poor respiratory compliance.

Oral Endotracheal Intubation - Adult (EMT-P)

- Consider Lidocaine prophylactically per ICEMA Reference #7040 - Medication - Standard Orders, for head injury.
- Monitor end-titile CO₂ with capnography.
- After three (3) unsuccessful attempts consider Needle Cricothyrotomy.

Oral Endotracheal Intubation - Pediatric (EMT-P)

- Uncuffed tubes for patients under eight (8) years old.
- Base hospital contact is required after two (2) failed intubation attempts.

Synchronized Cardioversion (EMT-P)

- Consider medication for pain and anxiety.
- If rhythm deteriorates to v-fib turn off the sync button and defibrillate.

Transcutaneous Cardiac Pacing (EMT-P)

- Consider medication for pain and anxiety.
- Contact the base hospital if rhythm persists.

Vagal Maneuvers (EMT-P)

- Use with caution for patients with hypertension, suspected STEMI, or suspected head/brain injury.

IV. REFERENCE

<u>Number</u>	<u>Name</u>
7040	Medication - Standard Orders
15010	Trauma - Adult (15 years of age or older)



CARDIAC ARREST - ADULT

I. FIELD ASSESSMENT/TREATMENT INDICATORS

Cardiac arrest in a non-traumatic setting.

II. BLS INTERVENTIONS

- Assess patient, begin CPR according to current AHA Guidelines, and maintain appropriate airway.
 - Compression rate shall be 100 per minute utilizing 30:2 compression-to-ventilation ratio for synchronous CPR prior to placement of advanced airway.
 - Ventilatory volumes shall be sufficient to cause adequate chest rise.
- If available, place AED— per ICEMA Reference #10130 - Automatic External Defibrillation (AED) - BLS. CPR is **not** to be interrupted except briefly for rhythm assessment.

III. LIMITED ALS (LALS) INTERVENTIONS

- Initiate CPR while applying the AED.
- Establish advanced airway when resources are available, with minimal interruption to CPR. After advanced airway established, compressions would then be continued at 100 per minute without pauses during ventilations.
- Establish peripheral intravenous access and administer a 500 ml bolus of normal saline (NS).
- See ICEMA Reference #12010 - Determination of Death on Scene.

~~Utilize the following treatment modalities while managing the cardiac arrest patient:~~

- Obtain blood glucose level, if indicated; administer Dextrose 50% per ICEMA Reference #7040 - Medication - Standard Orders 25-g IV.
- Naloxone ICEMA Reference #7040 - Medication - Standard Orders 2.0-mg IM/IN for suspected opiate overdose.

NOTE: Base ~~hospital~~Station contact is required to terminate resuscitative measures.

IV. ALS INTERVENTIONS

- Initiate CPR while applying the cardiac monitor.
- Determine cardiac rhythm and defibrillate if indicated. Begin a two (2) minute cycle of CPR.
- Obtain IV/IO access.
- Establish advanced airway when resources are available, with minimal interruption to CPR. After advanced airway established, compressions would then be continued at 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, ~~if available~~, for confirmation and monitoring of endotracheal tube placement and for assessment of ROSC. ~~For agencies with waveform capnography,~~ Document the shape of the wave and the capnography number in mmHG.
- Insert NG/OG Tube to relieve gastric distension per ICEMA Reference #10080 - Insertion of Nasogastric/Orogastric Tube.
- Obtain blood glucose level. If indicated, administer Dextrose per ICEMA Reference #7040 - Medication - Standard Orders.
- Naloxone per ICEMA Reference #7040 - Medication - Standard Orders ~~2-0~~ mg IV/IO/IM for suspected opiate overdose.
- If ROSC is achieved, obtain a 12-lead ECG.
- Utilize continuous waveform capnography, if available, to identify loss of circulation.
- For continued signs of inadequate tissue perfusion after successful resuscitation, Dopamine per ICEMA Reference #7040 - Medication - Standard Orders ~~infusion of 400 mg in 250 ml of NS may be initiated at 5-10 mcg/kg/min IV~~ to maintain signs of adequate tissue perfusion.
- Base hospital physician may order additional medications or interventions as indicated by patient condition.

Ventricular Fibrillation/Pulseless Ventricular Tachycardia

- Defibrillate at 360 joules for monophasic or biphasic equivalent per manufacture. If biphasic equivalent is unknown use maximum available.
- 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 1.0 mg IV/IO during each two (2) minute cycle of CPR after every defibrillation unless capnography indicates possible ROSC.
- Reassess rhythm after each two (2) minute cycle of CPR. If VF/VT persists, defibrillate as above.
- After two (2) cycles of CPR, consider administering Lidocaine per ICEMA Reference #7040 - Medication - Standard Orders 1.5 mg/kg IV/IO. May repeat at 0.75 mg/kg every five (5) minutes to maximum dose of 3.0 mg/kg.
- If patient remains in pulseless VF/VT after five (5) cycles of CPR, consult Base Station/hospital.

Pulseless Electrical Activity (PEA) or Asystole

- Assess for reversible causes and initiate treatment.
- Continue CPR with evaluation of rhythm every two (2) minutes.
- Administer fluid bolus of 300 ml NS IV, may repeat.
- Administer Epinephrine per ICEMA Reference #7040 - Medication - Standard Orders 1.0 mg IV/IO during each two (2) minute cycle of CPR after each rhythm evaluation.

Utilize the following treatment modalities while managing the cardiac arrest patient:

- ~~1. Insert NG/OG Tube to relieve gastric distension per ICEMA Reference #10080 Insertion of Nasogastric/Orogastric Tube.~~
- ~~2. Obtain blood glucose. If indicated, administer Dextrose 50% 25-gms IV.~~
- ~~3. Naloxone per 2.0 mg IV/IO/IM for suspected opiate overdose.~~

Termination of Efforts in the Prehospital Setting

- The decision to terminate efforts in the field should take into consideration, first, the safety of personnel on scene, and then family and cultural considerations.
- Consider terminating resuscitative efforts in the field if ALL of the following criteria are met:
 - No shocks were delivered.
 - No ROSC after a minimum of ten (10) minutes of advance cardiac life support (ACLS).
- Base hospital Station contact is required to terminate resuscitative measures. A copy of the ECG should be attached to the patient care report for documentation purposes.

NOTE

- ~~• If ROSC is achieved, obtain a 12-lead ECG.~~
- ~~• Utilize continuous waveform capnography, if available, to identify loss of circulation.~~
- ~~• For continued signs of inadequate tissue perfusion after successful resuscitation a Dopamine per infusion of 400 mg in 250 ml of NS may be initiated at 5–10 mcg/kg/min IV to maintain signs of adequate tissue perfusion.~~
- ~~• Base Station physician may order additional medications or interventions as indicated by patient condition.~~

V. REFERENCES

<u>Number</u>	<u>Name</u>
<u>7040</u>	<u>Medication - Standard Orders</u>
<u>10080</u>	<u>Insertion of Nasogastric/Orogastric Tube</u>
<u>10130</u>	<u>Automatic External Defibrillation (AED) - BLS</u>
<u>12010</u>	<u>Determination of Death on Scene</u>



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 if trauma is suspected.
- If patient history includes insulin or oral hypoglycemic medications, administer Glucose sublingual.

III. LIMITED ALS (LALS) INTERVENTIONS

- Obtain vascular access.
- Obtain blood glucose level. If hypoglycemic administer:
 - Dextrose 50% per ICEMA Reference #7040 - Medication - Standard Orders 25-gms (50-cc) IV, or
 - Glucagon ICEMA Reference #7040 - Medication - Standard Orders 1-mg IM/SC/IN, if unable to establish IV. May give one (1) time only.
 - May repeat blood glucose. Repeat Dextrose if extended transport time.
- If suspected narcotic overdose administer:

- Naloxone per ICEMA Reference #7040 - Medication - Standard Orders ~~2 mg IV/IM/IN~~. May repeat Naloxone per ICEMA Reference #7040 - Medication - Standard Orders ~~2 mg IV/IM/IN~~ every two (2) to three (3) minutes if needed.
- Do not exceed 10 mgs of Naloxone total regardless of route given.
- Assess and document response to therapy.
- Base ~~Station~~hospital may order additional medication dosages and fluid bolus.

IV. ALS INTERVENTIONS

- Obtain vascular access and place on monitor.
- Obtain blood glucose level. If hypoglycemic administer:
 - Dextrose 50% per ICEMA Reference #7040 - Medication - Standard Orders ~~25 gms (50 cc) IV/IO~~, or
 - Glucagon per ICEMA Reference #7040 - Medication - Standard Orders ~~1 mg IM/SC/IN~~, if unable to establish IV. May give one (1) time only.
 - May repeat blood glucose. Repeat Dextrose if extended transport time.
- For tonic/clonic type seizure activity administer:
 - Midazolam, per ICEMA Reference #7040 - Medication - Standard Orders ~~2.5 mg IN/IV/IO~~. May repeat in five (5) minutes for continued seizure activity, or
 - Midazolam per ICEMA Reference #7040 - Medication - Standard Orders ~~5 mg IM~~. May repeat in ten (10) minutes for continued seizure activity.
 - Assess patient for medication related reduced respiratory rate or hypotension.
 - Maximum of three (3) doses using any combination of IM/IN/IV/IO may be given for continued seizure activity. Contact ~~b~~Base Stationhospital for additional orders and to discuss further treatment options.

- If suspected narcotic overdose administer:
 - Naloxone per ICEMA Reference #7040 - Medication - Standard Orders~~2 mg IV/IM/IN~~. May repeat Naloxone per ICEMA Reference #7040 - Medication - Standard Orders~~2 mg IV/IM/IN~~ every two (2) to three (3) minutes if needed.
 - Do not exceed 10 mgs of Naloxone total regardless of route given.
- Assess and document response to therapy.
- Base ~~Station~~hospital may order additional medication dosages and fluid bolus.

V. REFERENCES

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



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 patient one (1) year of age or older, utilize AED per ICEMA Reference #10130 - Automatic External Defibrillation (AED) - BLS.

III. LIMITED ALS (LALS) INTERVENTIONS

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

- ~~_____~~ Check blood glucose level.
- Administer Dextrose as per ICEMA Reference #7040 - Medication - Standard Orders.
 - ~~_____~~ For neonates (0–4 weeks), if blood glucose < 35 mg/dL:
~~_____~~ Dextrose 25% (0.25 g/ml) Diluted 1:1 Give 0.5 g/kg (4 ml/kg) IV/IO.
 - ~~_____~~ For patient < 10 kg and > 4 weeks, if blood glucose < 60 mg/dL:
~~_____~~ Dextrose 25% (0.25 g/ml) Give 0.5 g/kg (2 ml/kg) IV/IO.
 - ~~_____~~ For patient > 10 kg and < 25 kg, if glucose less than 60 mg/dL:
~~_____~~ Dextrose 50% (0.5 g/mL) Diluted 1:1 Give 0.5 g/kg (2 ml/kg) IV/IO.
 - ~~_____~~ For patient > 25 kg, if glucose less than 80 mg/dL:
~~_____~~ Dextrose 50% (0.5 g/mL) Diluted 1:1 Give 0.5 g/kg (2 ml/kg) IV/IO.
 - May repeat blood glucose. Repeat Dextrose if extended transport time.
 - Administer Glucagon per ICEMA Reference #7040 - Medication - Standard Orders, 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.~~
- For suspected narcotic ingestion, may give Naloxone per ICEMA Reference #7040 - Medication - Standard Orders, Narean 0.1 mg/kg IV/IM/IN/IO. ~~Do not exceed the adult dosage of 10 mg IV/IM/IN.~~
- Base hospital/Station physician may order additional medication dosages and additional fluid boluses.

IV. ALS 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. After advanced airway established, insert NG/OG tube. 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, ~~if available~~, for confirmation and monitoring of endotracheal tube placement and for assessment of ROSC.

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.
- Perform CPR for two (2) minutes after each defibrillation, without delaying to assess the post-defibrillation rhythm.
- Administer Epinephrine ~~(1:10,000)~~ [per ICEMA Reference #7040 - Medication - Standard Orders](#), during each two (2) minute cycle of CPR after each defibrillation unless capnography indicates possible ROSC.
 - ~~1 day to 8 years: 0.01 mg/kg IO/IV (do not exceed adult dosage).~~
 - ~~9 to 14 years: 1.0 mg IV/IO.~~
- 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](#);
 - ~~1 day to 8 years: 1 mg/kg IO/IV.~~
 - ~~9 to 14 years: 1 mg/kg IV/IO.~~
- May repeat Lidocaine [per ICEMA Reference #7040 - Medication - Standard Orders](#) ~~at 0.5 mg/kg after five (5) minutes up to total of 3.0 mg/kg.~~
- If patient remains in pulseless VF/VT after five (5) cycles of CPR, consult [Base hospital Station](#).

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 ~~(1:10,000)~~ per ICEMA Reference #7040 - Medication - Standard Orders, during each two (2) minute cycle of CPR after each rhythm evaluation.
 - ~~1 day to 8 years: 0.01 mg/kg IO/IV.~~
 - ~~9 to 14 years: 1.0 mg IV/IO.~~

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, ~~b~~Base ~~hospital~~Station contact is required.

- Insert NG/OG tube to relieve gastric distention if the patient has been intubated with an advanced airway, per ICEMA Reference #10080 - Insertion of Nasogastric/Orogastric Tube.
- For continued signs of inadequate tissue perfusion, administer fluid bolus of NS. Reassess after each bolus. May repeat twice 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~~according to ICEMA Reference #14050 - Pediatric Altered Level of Consciousness.~~
- Naloxone for suspected opiate overdose per ICEMA Reference #7040 - Medication - Standard Orders~~;~~may repeat once as clinically indicated.
 - ~~1 day to 8 years: 0.1 mg/kg IO/IV. Do not exceed adult dosage.~~
 - ~~9 to 14 years: 2 mg IV/IO.~~

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

- Utilize continuous waveform capnography, if available, to identify loss of circulation.
- For continued signs of inadequate tissue perfusion **after** successful resuscitation;
 - Epinephrine ~~(1:10,000)~~ per ICEMA Reference #7040 - Medication - Standard Orders. ~~0.5 mcg/kg/min IO/IV push.~~

- 9 to 14 years: Dopamine per ICEMA Reference #7040 - Medication - Standard Orders. ~~400 mg in 250 ml of NS to infuse at 5–20 mcg/kg /min IV titrated to maintain signs of adequate tissue perfusion.~~
- Base ~~hospital~~Station physician may order additional medications or interventions as indicated by patient condition.

V. REFERENCES

<u>Number</u>	<u>Name</u>
7040	Medications - Standard Orders
10080	Insertion of Nasogastric/Orogastric Tube
10130	Automatic External Defibrillation (AED) - BLS
14050	Pediatric Altered Level of Consciousness



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 core temperature, if elevated begin passive cooling measures.

III. LIMITED ALS (LALS) INTERVENTIONS

- Establish advanced airway as needed.
- Obtain vascular access.
- For symptomatic hypotension with poor perfusion, consider fluid bolus of 20 ml/kg of NS not to exceed 300 ml NS.
- Check blood glucose level.
- Administer ~~Give~~ Dextrose per ICEMA Reference #7040 - Medication - Standard Orders.
 - ~~For neonates (0-4 weeks), if blood glucose < 35 mg/dL:
Dextrose 25% (0.25 g/ml) Diluted 1:1 Give 0.5 g/kg (4 ml/kg) IV/IO~~
 - ~~For patient < 10 kg and > 4 weeks, if blood glucose < 60 mg/dL:
Dextrose 25% (0.25 g/ml) Give 0.5 g/kg (2 ml/kg) IV/IO~~
 - ~~For patient > 10 kg and < 25kg, if glucose less than 60 mg/dL:
Dextrose 50% (0.5 g/mL) Diluted 1:1 Give 0.5 g/kg (2 ml/kg) IV/IO~~

- ~~For patient > 25 kg, if glucose less than 80 mg/dL:
Dextrose 50% (0.5 g/mL) Diluted 1:1 Give 0.5 g/kg (2 ml/kg) IV/IO~~
- May repeat blood glucose. Repeat Dextrose [per ICEMA Reference #7040 - Medication - Standard Orders](#), if extended transport time.
- [Administer Glucagon per ICEMA Reference #7040 - Medication - Standard Orders](#), if unable to start an IV.
 - ~~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.~~
- For suspected narcotic ingestion, may give [Naloxone, per ICEMA Reference #7040 - Medication - Standard Orders](#). ~~Narecan 0.1 mg/kg IV/IM/IN. Do not exceed the adult dosage of 10 mg IV/IM/IN.~~
- Base [hospital Station physician](#) may order additional medication dosages and additional fluid boluses.

IV. ALS INTERVENTIONS

- Establish advanced airway as needed.
- Obtain vascular access and 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.
- ~~Check blood glucose level.~~
- [Administer Give Dextrose per ICEMA Reference #7040 - Medication - Standard Orders](#). May repeat blood glucose. Repeat Dextrose [per ICEMA Reference #7040 - Medication - Standard Orders](#), if extended transport time.
 - ~~For neonates (0 - 4 weeks), if blood glucose < 35 mg/dL:
Dextrose 25% (0.25 g/ml) Diluted 1:1 Give 0.5 g/kg (4ml/kg) IV/IO~~
 - ~~For patient < 10 kg and > 4 weeks, if blood glucose < 60 mg/dL:
Dextrose 25% (0.25 g/ml) Give 0.5 g/kg (2 ml/kg) IV/IO~~
 - ~~For patient > 10 kg and < 25kg, if glucose less than 60 mg/dL:
Dextrose 50% (0.5 g/mL) Diluted 1:1 Give 0.5 g/kg (2 ml/kg) IV/IO~~
 - ~~For patient > 25 kg, if glucose less than 80 mg/dL:~~

~~———— Dextrose 50% (0.5 g/mL) Diluted 1:1 Give 0.5 g/kg (2 ml/kg) IV/IO~~

~~➤ — May repeat blood glucose. Repeat Dextrose if extended transport time.~~

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

~~➤ — 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.~~

- For suspected narcotic ingestion, may give Naloxone per ICEMA Reference #7040 - Medication - Standard Orders ~~Narcan 0.1 mg/kg IV/IM/IN. Do not exceed the adult dosage of 10 mg IV/IM/IN.~~

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

V. REFERENCES

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