AGENDA

ICEMA
MEDICAL ADVISORY COMMITTEE

August 25, 2022

1300

Purpose: Information Sharing

Meeting Facilitator: Seth Dukes

Timekeeper: Michelle Hatfield

Record Keeper: Michelle Hatfield

	AGENDA ITEM	PERSON(S)	DISCUSSION/ACTION
I.	Welcome/Introductions	Seth Dukes	
II.	Approval of Minutes	All	Discussion
III.	Discussion/Action Items		
	A. Standing EMS System Updates		
	1. Trauma Program 2. STEMI Program 3. Stroke Program	1. Loreen Gutierrez 2. Loreen Gutierrez 3. Loreen Gutierrez	1. Discussion 2. Discussion 3. Discussion
	B. HEMS Utilization Task Force	Stephen Patterson	Discussion
	C. Pulsara Trial Update	Reza Vaezazizi	Discussion
	D. Prehospital Ultrasound Trial Study Update	Michael Neeki	Discussion
	E. Mono County Standing Agenda Item	Loreen Gutierrez	Discussion/Action
	F. MAC Position Openings	Michelle Hatfield	Discussion/Action
	G. Needle Thoracotomy Procedure	Michelle Hatfield	Discussion/Action
	H. Protocol Review 1. 13060 - Drowning/Submersion Injuries 2. 7010R5 - Standard Drug and Equipment List - BLS/LALS/ALS 3. 7020R3 - Standard Drug and Equipment List - EMS Aircraft 4. 11010R5 - Medication-Standard Orders 5. 14030R1 - Bradycardias- Adult 6. Pain Management - Adult and Pediatric	Michelle Hatfield	Discussion/Action

	7. 1030 - EMT-P Accreditation Administrative Changes 8. 1010 - AEMT Certification 9. 1020 - EMT Certification 10. 1030 - EMT-P Accreditation 11. 1040 - MICN Authorization 12. 1050 - RCP Authorization 13. 1080 - EMT-P Student Field Internship Requirements 14. 11020R3 – Procedure - Standard Orders 15. 14050R1 - Cardiac Arrest - Adult 16. 14150 - Cardiac Arrest - Pediatric 17. 14180R2 - Trauma - Pediatric 18. 14190 - Burns - Pediatric 19. 15040 - Respiratory Distress (Authorized Public Safety Personnel) 20. 15050 - Optional Skills and Medications (Authorized Public Safety Personnel)		
IV.	Public Comment Period		Discussion
V.	Future Agenda Items		Discussion
VI.	Next Meeting Date: October 27, 2022		Discussion
VII.	Adjournment		Action
VIII.	Closed Session Case Review	MAC Committee	Discussion/Action
	A. Loop Closure Cases		
	B. Case Reviews		

MINUTES

ICEMA
MEDICAL ADVISORY COMMITTEE

JUNE 23, 2022

1300

AGENDA ITEM		DISCUSSION/FOLLOW UP	RESPONSIBLE PERSON(S)
I.	Welcome/Introductions	Meeting was called to order at 1303	Seth Dukes
II.	Approval of Minutes	The April 28, 2022, minutes were approved. Motion to approve. MSC: Joy Peters/Amanda Ward APPROVED AYES: Brian Savino, Melanie Randall, Seth Dukes, Michael Neeki, Kevin Parkes, Kenneth Fox, Troy Pennington, Lisa Davis, Lance Brown, Leslie Parham, Steven Patterson, Chris Tardiff, Debbie Bervel.	
III.	Discussion/Action Items		
	A. Standing EMS System Updates		
	1. Trauma Program 2. STEMI Program 3. Stroke Program	1. ARMC is working towards level 1 designation and Hi-Desert MC requesting level 4 designation. 2. STEMI meeting is in July. 3. IFT Project-education on transfer of care reports between referral hospitals and specialty receiving centers is in process. The Continuation of Care presentation is nearly complete.	Loreen Gutierrez
	B. HEMS Utilization Task Force	No updates. HEMS meeting is next week to review cases and will report at the next MAC meeting.	Stephen Patterson
	C. Pulsara Trial Update	Trial is underway and has been a communication tool during the pandemic. It is being looked at to improve	Reza Vaezazizi

		communication between prehospital providers and hospitals using analog data and images. Staffing has been an issue.	
	D. Prehospital Ultrasound Trial Study Update	Progress is slow and participating agency medical directors need to ensure images are being reviewed.	Reza Vaezazizi
	E. EMS Fellow Updates	The Substance Abuse Navigator is in process, and they are currently recruiting more agencies for the LBN program. Igel has been implemented and no further work is needed on that project from the fellows. Dr. Downes and Dr. Prest are leaving fellowship at the end of June, no replacements for the next year.	Michael Downes/Alayna Prest
	F. Calcium Chloride ESRD	Calcium Chloride for ESRD patients was presented at the last MAC meeting. Motion to add Calcium Chloride for bradycardia in ESRD patients to the Medication List and bradycardia protocol. MSC: Michael Downes/Joy Peters. APPROVED AYES: Brian Savino, Melanie Randall, Michael Neeki, Seth Dukes, Kevin Parkes, Leslie Parham, Lance Brown, Troy Pennington, Stephen Patterson, Lisa Davis, Ken Fox, Chris Tardiff, Debbie Bervel.	Michael Downes
	G. Versed Post ROSC	Versed Post ROSC agitation in patients with an advanced airway was presented at previous MAC meeting. Motion to add Versed for post ROSC agitation to the Medication List. MSC: Alayna Prest/Ken Fox. APPROVED AYES: Brian Savino, Melanie Randall, Michael Neeki, Seth Dukes, Kevin Parkes, Leslie Parham, Lance Brown, Troy Pennington, Stephen Patterson, Lisa Davis, Ken Fox, Chris Tardiff, Debbie Bervel.	Alayna Prest
	H. Versed Doses/Routes	Discussed Versed protocol update for dose/route consistency. Motion to Approve Versed dose/route change to 2.5 mg IV/IO and 5 mg IM/IN for adults, in all listed indications except CPAP.	Shawn Reynolds

		MSC: Shawn Reynolds/Joy Peters. APPROVED AYES: Brian Savino, Melanie Randall, Michael Neeki, Seth Dukes, Kevin Parkes, Leslie Parham, Lance Brown, Troy Pennington, Stephen Patterson, Lisa Davis, Ken Fox, Chris Tardiff, Debbie Bervel.	
	I. ALS Skills Verification	Discussed the addition of ALS skills verification as a requirement for paramedic certification. Motion to add ALS skills certification requirement for paramedic certification in the ICEMA region. MSC: Leslie Parham/Joy Peters. APPROVED AYES: Brian Savino, Melanie Randall, Michael Neeki, Seth Dukes, Kevin Parkes, Leslie Parham, Lance Brown, Troy Pennington, Stephen Patterson, Lisa Davis, Ken Fox, Chris Tardiff, Debbie Bervel.	Ken Fox/ Leslie Parham
	J. Unified Scope	MAC Committee discussed potential benefits and pitfalls of adding Unified Scope to policy. Motion to Approve Unified Scope in the ICEMA region. MSC: Troy Pennington/ Lisa Davis APPROVED Nay: Lance Brown, Kevin Parkes, Seth Dukes, Joy Peters. Ayes: Michael Neeki, Amanda Ward, Lisa Davis, Steve Patterson, Leslie Parham, Troy Pennington.	Atilla Uner
	K. Nitro for SBP > 160	Deferred to next meeting.	Michael Downes
	L. Submersion Protocol	New Submersion Injury protocol submitted to MAC for review. Motion to add the submission injury policy as written. MSC: Seth Dukes/ Amanda Ward/Michael Neeki APPROVED Ayes: Brian Savino, Melanie Randall, Seth Dukes, Michael Neeki, Kevin Parkes, Kenneth Fox, Troy Pennington, Lisa Davis, Lance	Patty Eickholt

		Brown, Leslie Parham, Steven Patterson, Chris Tardiff. Debbie Bervel	
	M. Protocol Review		Michelle Hatfield
	1.7010R4-Equipment List	MSC: Amanda Ward/Michael Neeki APPROVED Ayes: Brian Savino, Melanie Randall, Seth Dukes, Michael Neeki, Kevin Parkes, Kenneth Fox, Troy Pennington, Lisa Davis, Lance Brown, Leslie Parham, Steven Patterson, Chris Tardiff. Debbie Bervel, Amanda Ward.	
IV	Public Comment Period	Tylenol was approved at EMDAC as LOSOP. No further conversations needed at MAC to move forward with implementation.	Carley Crews/Loreen Gutierrez
V	Future Agenda Items	Pediatric cardiac dysrhythmias-Seth Dukes.	
VI.	Next Meeting Date	August 25, 2022	
VII.	Adjournment	Meeting was adjourned at 1500	
VIII.	Closed Session A. Case Reviews B. Loop Closure Cases		

Attendees:

NAME	MAC POSITION	EMS AGENCY STAFF	POSITION
☒ P. Brian Savino - LLUMC ☐ Brandon Woodward - ARMC	Trauma Hospital Physicians (2)	☒ Reza Vaezazizi, MD	Medical Director
☒ Melanie Randall - LLUMC	Pediatric Critical Care Physician	☐ Demis Cano	EMS Specialist
☐ Phong Nguyen - RDCH ☒ Debbie Bervel - SARH	Non-Trauma Base Physicians (2)	☒ Loreen Gutierrez	Specialty Care Coordinator
☐ Aaron Rubin - Kaiser	Non-Base Hospital Physician	☒ Jeff Copeland	Sr. EMS Specialist
☒ Michael Neeki - Rialto FD	Public Transport Medical Director	☒ Michelle Hatfield	EMS Specialist
☒ Seth Dukes - AMR	Private Transport Medical Director		
☒ Kevin Parkes - Ontario FD	Fire Department Medical Director		
☒ Joy Peters - ARMC	EMS Nurses Representative		
☒ Leslie Parham - Chino Valley FD	EMS Officers Representative		
☐ Kevin Dearden - Rialto FD	Public Transport Medical Representative (Paramedic/RN)		
☐ Susie Moss - AMR	Private Transport Medical Representative (Paramedic/RN)		
☒ Lance Brown - LLUMC	Specialty Center Medical Director		
☐ Mendy Hickey - SMMC	Specialty Center Coordinator		
☒ Troy Pennington - Mercy Air	Private Air Transport Medical Director		
☒ Stephen Patterson - Sheriff's Air Rescue	Public Air Transport Medical Director		
☐ VACANT	PSAP Medical Director		
☒ Lisa Davis - Sierra Lifeflight	Inyo County Representative		
☐ VACANT	Mono County Representative		
☐ VACANT	SAC Liaison		
☒ Amanda Ward - Crafton Hills	EMT-P Training Program Representative		
☒ Kenneth Fox	Public Safety Field Paramedic		
☒ Chris Tardiff	Private Transport Field Paramedic		
☐ VACANT	ICEMA Medical Director Appointee		

Inland Counties Emergency Medical Agency

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

DATE: July 28, 2022

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: Daniel Munoz, Interim 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 August 25, 2022, at 1:00 pm. Please review and bring suggestions for modification to the meeting.

ICEMA Reference Number and Name

13060	NEW	Drowning/Submersion Injuries
1030	1030R1	EMT-P Accreditation
7010R4	7010R5	Standard Drug and Equipment List - BLS/LALS/ALS
7020R2	7020R3	Standard Drug and Equipment List - EMS Aircraft
11010R4	11010R5	Medication - Standard Orders
14030	14030R1	Bradycardias - Adult
14100	14100R1	Pain Management - Adult and Pediatric

DM/RV/lg

Enclosures

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30-DAY NOTIFICATION FOR POLICIES/PROTOCOLS CHANGES
JULY 28, 2022

Reference #	Name	Changes
DELETIONS		
NA		
NEW		
13060	Drowning/Submersion Injuries	Policy added to Environmental Emergencies
CHANGES		
1030	EMT-P Accreditation	The addition of skills competency verification.
7010R4	Standard Drug and Equipment List - BLS/LALS/ALS	Removed the one-way flutter valve for needle thoracotomy. Added Acetaminophen IV.
7020R2	Standard Drug and Equipment List - EMS Aircraft	Removed the one-way flutter valve for needle thoracotomy.
11010R4	Medication - Standard Orders	IV Acetaminophen added for mild to moderate pain. Calcium chloride added for ESRD with base order. Dosing for Midazolam changed to 2.5 mg IV/IO for consistency.
14030	Bradycardia	Calcium chloride added for ESRD with base order.
14100	Pain Management - Adult and Pediatric	IV acetaminophen added for mild to moderate pain.

Drowning/Submersion Injuries

Cardiac arrest in drowning is caused by hypoxia, airway and ventilation are equally important to high-quality CPR.

I. FIELD ASSESSMENT/TREATMENT INDICATORS

- Submersion in water regardless of depth.
- ALOC with submersion.
- Respiratory distress with foaming, vomiting, coughing, wheezing, abnormal lung sounds and or apnea.
- Decreased or absent vital signs.

II. PRIORITIES

- Assure the safety of EMS field personnel.
- Assure and maintain ABCs with an emphasis on reversing hypoxia.
- Ventilate through the foam, do not waste time attempting to suction.
- Consider trauma or pre-existing medical problem (hypoglycemia, seizure, dysrhythmia).
- Assess for hypothermia.
- Encourage transport even if symptoms are mild.

III. BLS INTERVENTIONS

- Assure and maintain ABCs.
- Administer oxygen per ICEMA Reference #11010 - Medication - Standard Orders.
- Maintain spinal motion restriction if indicated.
- Remove wet clothing/ warm patient.
- Obtain and monitor vital signs.
- Provide high quality CPR if indicated with an emphasis on airway.

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

- Perform activities identified in the BLS Interventions.
- 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 ml/kg IV and repeat until perfusion improves.

- Administer Albuterol per ICEMA Reference #11010-Medication-Standing Orders

V. ALS INTERVENTIONS PRIOR TO BASE HOSPITAL CONTACT

- Perform activities identified in the BLS and LALS Interventions.

- Monitor cardiac status.

- Monitor end tidal CO2, pulse oximetry

- Obtain glucose level. If indicated administer:

  - Dextrose per ICEMA Reference #11010-Medication-Standing Orders.

  - May repeat blood glucose level. Repeat Dextrose Per ICEMA Reference # 11010R4 - Medication - Standing Orders.

- Administer Albuterol/Atrovent per ICEMA Reference #11010 – Medication - Standard Orders.

- Consider an advanced airway, refer to ICEMA Reference # 11020 - Procedure - Standard Orders.

VI. REFERENCES

Number	Name
11010	Medication - Standard Orders
11020	Procedure - Standing Orders
14050	Cardiac Arrest - Adult
14150	Cardiac Arrest - Pediatric

EMT-P ACCREDITATION

I. PURPOSE

To define the accreditation and reverification requirements for an eligible applicant to practice as an Emergency Medical Technician - Paramedic (EMT-P) within the ICEMA region.

II. ELIGIBILITY

- Possess a current California EMT-P License.
- Current employment as an EMT-P by an authorized Advance Life Support (ALS) service provider or by an EMS provider that has formally requested ALS authorization in the ICEMA region.

III. PROCEDURE

Accreditation/Reverification

- Submit a completed online application using the ICEMA EMS Credentialing portal found on the ICEMA website at ICEMA.net that includes:
  - Copy of a valid government issued photo identification.
  - Copy of a valid California EMT-P license.
  - Copy of completed EMT-P skills competency verification form, or electronic verification from employer that skills competency was completed.
  - Skills competency shall be verified by direct observation of an actual or simulated patient contact. Skills competency shall be verified by an applicant who is currently certified or licensed as an EMT-P, Registered Nurse, Physician Assistant, or Physician and who shall be designated as part of a skills competency verification process approved by ICEMA.
  - Copy (front and back) of a valid American Heart Association BLS Healthcare Provider, American Red Cross BLS Healthcare Provider card ~~Professional Rescuer CPR card~~ or equivalent. Online course is acceptable with written documentation of skills portion.
  - Copy (front and back) of a valid American Heart Association Advanced Cardiac Life Support (ACLS) card. ACLS cards that are obtained online must have hands on skills evaluation with an approved American Heart Association instructor.
  - ~~For military based fire/EMS field personnel only~~, American Red Cross Advanced Life Support (ALS) provider card will be recognized and online course is acceptable with written documentation of skills portion.
- Submit the established ICEMA fee. Fees paid for accreditation are not refundable or transferable. ICEMA fees are published on the ICEMA website at ICEMA.net.

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- The EMT-P shall be responsible for notifying ICEMA of any and all changes in name, employer, e-mail and/or mailing address within 30 calendar days of change. This notification/change may be made through the ICEMA EMS Credentialing portal found on the ICEMA website at ICEMA.net.

NOTE: If ICEMA accreditation has lapsed for more than one (1) year, the applicant must comply with the initial accreditation procedure.

Initial Accreditation

- Pass the ICEMA EMT-P accreditation written examination with a minimum score of 80 percent (80%).
  - A candidate who fails to pass the ICEMA written examination on the first attempt will have to pay the ICEMA approved fee and re-take the exam with a minimum passing score of 85 percent (85%).
  - A candidate who fails to pass the ICEMA written examination on the second attempt will have to pay the established ICEMA fee, and provide documentation of eight (8) hours of remedial training in ICEMA protocols, policies/procedures given by their EMS/QI Coordinator and pass the ICEMA exam with a minimum passing score of 85 percent (85%).
  - If the candidate fails to pass the ICEMA written examination on the third attempt, the candidate will be ineligible for accreditation for a period of six (6) months, at which time candidate must reapply and successfully complete all initial accreditation requirements.

ICEMA accreditation will be effective from the date all requirements are verified and expire on the same date as the California EMT-P license, provided all requirements continue to be met.

STANDARD DRUG AND EQUIPMENT LIST - BLS/LALS/ALS

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

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

MEDICATIONS/SOLUTIONS

Exchanged Medications/Solutions	**BLS**	**LALS**	**ALS Non-Transport**	**ALS Transport**
Acetaminophen (Tylenol) 1 gm IV			1	1
Adenosine (Adenocard) 6 mg			1	1
Adenosine (Adenocard) 12 mg			2	2
Albuterol Aerosolized Solution (Proventil) - unit dose 2.5 mg		4 doses	4 doses	4 doses
Albuterol MDI with spacer		1 SPECIALTY PROGRAMS ONLY	1 SPECIALTY PROGRAMS ONLY	1 SPECIALTY PROGRAMS ONLY
Aspirin, chewable - 81 mg tablet		2	1 bottle	1 bottle
Atropine 1 mg preload			2	2
Calcium Chloride 1 gm preload			1	1
Dextrose 10% in 250 ml Water (D10W)		2	2	2
Diphenhydramine (Benadryl) 50 mg		2	1	1
Epinephrine 0.15 mg Auto-Injector	2 SPECIALTY PROGRAMS ONLY	2 SPECIALTY PROGRAMS ONLY		
Epinephrine 0.3 mg Auto-Injector	2 SPECIALTY PROGRAMS ONLY	2 SPECIALTY PROGRAMS ONLY		
Epinephrine 1 mg/ml 1 mg		2	2	2
Epinephrine 0.1 mg/ml 1 mg preload			4	4
Glucagon 1 mg		1	1	1
Glucose paste	1 tube	1 tube	1 tube	1 tube
Ipratropium Bromide Inhalation Solution (Atrovent) unit dose 0.5 mg			4	4
Irrigating Saline and/or Sterile Water (1000 cc)	2	1	1	2
Lidocaine 100 mg			3	3
Lidocaine 2% Intravenous solution			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
Nitroglycerine Paste 2% - 1 gm packets, **or** Nitroglycerine Paste 2% - 30 gm tube, **or** Nitroglycerine Paste 2% - 60 gm tube				2 1 1
Normal Saline for Injection (10 cc)		2	2	2
Normal Saline 100 cc			1	2

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
Sodium Bicarbonate 50 mEq preload			2	2
Tranexamic Acid (TXA) 1 gm			2	2

Non-Exchange Controlled Substance Medications MUST BE DOUBLE LOCKED	**BLS**	**LALS**	**ALS Non-Transport**	**ALS Transport**
Fentanyl			200-400 mcg	200-400 mcg
Midazolam			20-40 mg	20-40 mg
Ketamine			120-1000 mg	120-1000 mg

AIRWAY/SUCTION EQUIPMENT

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

Exchanged Airway/Suction Equipment	**BLS**	**LALS**	**ALS Non-Transport**	**ALS Transport**
adaptor				
Suction Canister	1		1	1
Suction catheters - 6fr, 8fr or 10fr, 12fr or 14fr	1 each		1 each	1 each
Ventilation Bags - Infant 250 ml Pediatric 500 ml (or equivalent) Adult	 1 1 1	 1 1 1	 1 1 1	 1 1 1
Water soluble lubricating jelly		1	1	1

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

IV/NEEDLES/SYRINGES/MONITORING EQUIPMENT

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

Exchanged IV/Needles/Syringes/Monitor Equipment	**BLS**	**LALS**	**ALS Non-Transport**	**ALS Transport**
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
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		
Automatic CPR device (FDA approved)	1	1	1	1
Automatic transport ventilator (Specialty Program Only - ICEMA approved device)			1	1
Backboard padding	1	1	1	1
Buretrol			1	1
Chemistry profile tubes			3	3
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

Non-Exchange Optional Equipment/ Medications	BLS	LALS	ALS Non-Transport	ALS Transport
Naloxone (Narcan) Nasal Spray 4 mg	2	2	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

Exchanged Dressing Materials/Other Equipment/ Supplies	**BLS**	**LALS**	**ALS Non-Transport**	**ALS Transport**
Universal dressing 10x30 inches	2	2	2	2

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

STANDARD DRUG AND EQUIPMENT LIST - EMS AIRCRAFT

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
Acetaminophen (Tylenol) 1 gm IV	1
Adenosine (Adenocard) 6 mg	1
Adenosine (Adenocard) 12 mg	2
Albuterol Aerosolized Solution (Proventil) - unit dose 2.5 mg	3 doses
Aspirin, chewable - 81 mg tablet	1 bottle
Atropine 1 mg preload	2
Calcium Chloride 1 gm preload	1
Dextrose 10% in 250 ml Water (D10W) *	2
Diphenhydramine (Benadryl) 50 mg	1
Epinephrine 1 mg/ml 1 mg	2
Epinephrine 0.1 mg/ml 1mg preload	3
Glucagon 1 mg	1
Glucopaste	1 tube
Ipratropium Bromide Inhalation Solution (Atrovent) unit dose 0.5 mg	3
Lidocaine 100 mg	3
Lidocaine 2% Intravenous solution	1
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	1
Normal Saline 500 ml and/or 1000 ml	2000 ml
Ondansetron (Zofran) 4 mg Oral Disintegrating Tablets (ODT)	4
Ondansetron (Zofran) 4 mg IM/ IV	4
Sodium Bicarbonate 50 mEq preload	2
Tranexamic Acid (TXA) 1 gm	2

CONTROLLED SUBSTANCE MEDICATIONS-MUST BE DOUBLE LOCKED	AMOUNT
Fentanyl	200-400 mcg
Midazolam	20-40 mg
Ketamine	120-1000 mg

AIRWAY/SUCTION EQUIPMENT	AMOUNT
Aircraft Oxygen source -10 L /min for 20 minutes	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
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

AIRWAY/SUCTION EQUIPMENT	AMOUNT
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~~ 14 gauge 3.25 inch and 18 gauge 1.75-2 inch IV catheters for Needle Thoracostomy.	 2 each~~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, Pediatric 500 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)	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, 3 ml, 10 ml, 20 ml	2 each
Syringe - 60 ml 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	

DRESSING MATERIALS/OTHER EQUIPMENT SUPPLIES	AMOUNT
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
Sterile gauze pads - 4x4 inch	4
Sterile Sheet for Burns	2
Traction splint	1
Universal Dressing 10x30 inches	2

OPTIONAL EQUIPMENT/MEDICATIONS	Amount
Automatic ventilator (Approved)	1
Backboard padding	1
BLS AED/defib pads	1
Chemistry profile tubes	3
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
Naloxone (Narcan) Nasal Spray 4 mg	2
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

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.

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

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

Acetaminophen (Tylenol) - Adult (ALS)

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

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

Acetaminophen (Tylenol) - Pediatric (ALS)

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

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

Reference #s 7010, 7020, 14100

Adenosine (Adenocard) - Adult (ALS)

Stable narrow-complex SVT or Wide complex tachycardia:

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

Reference #s 7010, 7020, 14040

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

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

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

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

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

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

Albuterol (Proventil) - Pediatric (LALS, ALS)

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

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

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

Programs Only)

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

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

Aspirin, chewable (LALS, ALS)

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

Reference #s 4060, 4080, 5010, 7010, 7020~~, 14240~~

Atropine (ALS) - Adult

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

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

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

Atropine - Pediatric (ALS)

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

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

Calcium Chloride - Adult (ALS)

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

Reference #s 5010, 7010, 7020, 13010

*For cardiac arrest with suspected hypocalcemia, hyperkalemia, hypermagnesemia or calcium channel blocker poisoning **(base hospital order only)**:*
Calcium Chloride, 1 gm (10 ml of a 10% solution) IV/IO.

Reference #s 7010, 7020, 14050

*For End Stage Renal Disease (ESRD) patients on dialysis with suspected hyperkalemia and hemodynamic instability with documented sinus bradycardia, 3rd degree AV Block, 2nd degree Type II AV Block, slow junctional and ventricular escape rhythms, or slow atrial fibrillation. (**Base hospital order only).***
Calcium Chloride, 1 gm (10 ml of a 10% solution) IV/IO

Reference #s 5010, 7010, 7020, 14030

Calcium Chloride - Pediatric (ALS)

*Calcium Channel Blocker Poisonings **(base hospital order only)**:*
Calcium Chloride, 20 mg/kg IV/IO over five (5) minutes.

Reference #s 7010, 7020, 13010

Dextrose - Adult (LALS, ALS)

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

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

Dextrose - Pediatric (LALS, ALS)

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

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

Diphenhydramine - Adult (ALS)

Diphenhydramine, 25 mg IV/IO

Diphenhydramine, 50 mg IM

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

Diphenhydramine - Pediatric (ALS)

Allergic reaction:

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

Reference #s 7010, 7020, 14140

Epinephrine (0.3 mg) Auto-Injector - Adult and Pediatrics >30 kg (BLS, LALS-Specialty Program Only)

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

Reference # 14010

Epinephrine (0.15 mg) Auto-Injector - Pediatric 15 - 30 kg (BLS, LALS-Specialty Program Only)

Anaphylaxis (Severe Allergic Reactions), Severe Bronchospasm, Oropharyngeal Edema, Pending Respiratory Failure:

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

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

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

Anaphylaxis (Severe Allergic Reactions), Severe Bronchospasm, oropharyngeal edema, Pending Respiratory Failure:

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

Reference # 14010

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

For persistent severe anaphylactic reaction:

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

Reference # 14010

Cardiac Arrest, Asystole, PEA:

Epinephrine (0.1 mg/ml), 1 mg IV/IO.

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

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

Post resuscitation, persistent profound nontraumatic shock and hypotension (Push Dose Epinephrine):

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

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

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

Anaphylaxis (Severe Allergic Reactions), Severe Bronchospasm, Pending Respiratory Failure:

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

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

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

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

Epinephrine (0.1 mg/ml), 0.01 mg/kg IV/IO, no more than 0.1 mg per dose. May repeat to a maximum of 0.5 mg.

Cardiac Arrest:

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

Newborn Care:

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

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

Reference # 14200

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

Post resuscitation, profound shock and hypotension (Push Dose Epinephrine):

Prepare Epinephrine 0.01 mg/ml solution by mixing 9 ml of normal saline with 1 ml of Epinephrine 0.1 mg/ml in a 10 ml syringe. Administer 0.1 ml/kg (do not exceed adult dosage), every one (1) to five (5) minutes. Titrate to maintain a SBP more than 70 mm Hg.

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

Fentanyl - Adult (ALS)

Chest Pain (Presumed Ischemic Origin):

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

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

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

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

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

Pacing, synchronized cardioversion:

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

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

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

Fentanyl - Pediatric (ALS)

Fentanyl, 0.5 mcg/kg slow IV/IO over one (1) minute. May repeat in five (5) minutes titrated to pain, not to exceed 100 mcg.

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

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

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

Adult with blood glucose less than 80 mg/dL:
Glucose - Oral, one (1) tube for patients with an intact gag reflex and hypoglycemia.

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

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

Hypoglycemia - Neonates (0 - 4 weeks) with blood glucose less than 35 mg/dL or pediatric patients (more than 4 weeks) with glucose less than 60 mg/dL:
Glucose - Oral, one (1) tube for patients with an intact gag reflex and hypoglycemia.

Reference #s 7010, 7020, 14170, 14160

Glucagon - Adult (LALS, ALS)

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

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

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

Glucagon - Pediatric (LALS, ALS)

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

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

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

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

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

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

Reference #s 7010, 7020, 14010, 14070

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

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

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

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

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

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

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

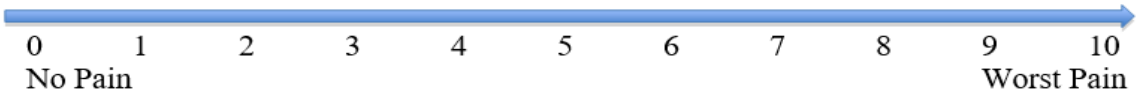
When used in combination with Albuterol MDI use Albuterol MDI dosing.

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

Ketamine - Adult (ALS)

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

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



Reference #s 7010, 7020, 14100

Lidocaine - Adult (ALS)

VT (pulseless)/VF:
Initial Dose: Lidocaine, 1.5 mg/kg IV/IO

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

V-Tach, Wide Complex Tachycardia - with Pulses:
Lidocaine, 1.5 mg/kg slow IV/IO

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

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

Lidocaine - Pediatric (ALS)

Cardiac Arrest:

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

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

Reference #s 5010, 7010, 7020, 14150

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

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

Reference #s 5010, 7010, 7020, 11020

Magnesium Sulfate (ALS)

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

Eclampsia (Seizure/Tonic/Clonic Activity):
Magnesium Sulfate, 4 gm IV/IO slow IV push over three (3) to four (4) minutes.

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

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

*Severe Asthma/Respiratory Distress (ALS) **(base hospital order only)**:*
Magnesium Sulfate, 2 gm slow IV drip over 20 minutes. Do not repeat.

Reference# 14010

Magnesium Sulfate - Pediatric (ALS)

*Severe Asthma/Respiratory Distress **(base hospital order only)**:*
Magnesium Sulfate, 50 mg/kg slow IV drip over 20 minutes. Do not exceed the adult dosage of 2 gm total. Do not repeat.

Reference # 14120

Midazolam (Versed) - Adult (ALS)

Behavioral Emergencies, if patient meets criteria for potentially fatal and dangerous agitation:
Midazolam, 2.5 mg IV/IO/IN. May repeat in five (5) minutes, **or**

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

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

Reference # 14110

*Post ROSC Agitation **(base hospital order only)**: Agitation following ROSC that hinders patient's care, i.e. biting or attempting to remove ET tube/lines,* **Not to be used for sedation during intubation of any patients**. Patient must have advanced airway (endotracheal tube or i-gel.)*:*
Midazolam, 2.5 mg IV/IO **or**

Midazolam 5 mg IM/IN

Repeat dose requires base hospital contact.

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 10 minutes for continued seizure activity.

Assess patient for medication related reduced respiratory rate or hypotension.

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

Pacing, synchronized cardioversion:

Midazolam, 2.5 mg slow IV/IO/IN push may repeat in five (5) minutes.~~or IN~~

CPAP:

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

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

Midazolam (Versed) - Pediatric (ALS)

Seizures:

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

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

Assess patient for medication related reduced respiratory rate or hypotension.

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

Reference #s 7010, 7020, 14170

Naloxone (Narcan) - Adult (BLS)

For resolution of respiratory depression related to suspected opiate overdose:

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

For suspected Fentanyl overdose with respiratory depression:

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

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

Reference #s 7010, 7020, 8030, 14060

Naloxone (Narcan) - Adult (LALS, ALS)

For resolution of respiratory depression related to suspected opiate overdose:

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

For suspected Fentanyl overdose with respiratory depression:

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

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

Reference #s 4080, 7010, 7020, 14060

Naloxone (Narcan) - Pediatric (BLS)

For resolution of respiratory depression related to suspected opiate overdose:

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

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

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

Naloxone (Narcan) - Pediatric (LALS, ALS)

For resolution of respiratory depression related to suspected opiate overdose:

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

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

Reference #s 7010, 7020, 14150, 14160

Nitroglycerin (NTG) (LALS, ALS)

Nitroglycerin, 0.4 mg sublingual/transmucosal.

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

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

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

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

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

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

Nausea/Vomiting:

Ondansetron, 4 mg slow IV/IO/ODT

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

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

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

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

Oxygen (non-intubated patient per appropriate delivery device)

General Administration (Hypoxia):

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

Chronic Obstructive Pulmonary Disease (COPD):

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

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

Sodium Bicarbonate - Adult (ALS)

*Tricyclic Poisoning **(base hospital order only)**:*

Sodium Bicarbonate, 1 mEq/kg IV/IO

Reference #s 5010, 7010, 7020, 13010

For cardiac arrest with suspected metabolic acidosis, hyperkalemia or tricyclic poisoning ***(base hospital order only)****:*

Sodium Bicarbonate, 50 mEq IV/IO

Reference #'s 7010, 7020, 14050

Sodium Bicarbonate - Pediatric (ALS)

Tricyclic Poisoning ***(base hospital order only)****:*

Sodium Bicarbonate, 1 mEq/kg IV/IO

Reference #'s 7010, 7020, 13010

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

Signs of hemorrhagic shock meeting inclusion criteria:

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

Reference #s 7010, 7020, 14090

APPENDIX I

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

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

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

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

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

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

Weight-based dosing:

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

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

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

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

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

Reference #s, 13010, 13040

Diazepam (Valium) - Adult (ALS)

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

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

Reference # 13040

Diazepam (Valium) - Pediatric (ALS)

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

Diazepam 0.05 mg/kg IV

Reference # 13040

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

Nerve agent exposure with associated symptoms:

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

Reference #s 7010, 7020, 13010, 13040

BRADYCARDIAS - ADULT

STABLE BRADYCARDIA

I. FIELD ASSESSMENT/TREATMENT INDICATORS

- Heart rate less than 60 bpm.
- Signs of adequate tissue perfusion.

II. BLS INTERVENTIONS

- Recognition of heart rate less than 60 bpm.
- Reduce anxiety, allow patient to assume position of comfort.
- Administer oxygen as clinically indicated.

III. LIMITED ALS (LALS) INTERVENTIONS

- Establish vascular access if indicated. If lungs sound clear, consider bolus of 300 cc NS, may repeat.
- Monitor and observe for changes in patient condition.

IV. ALS INTERVENTIONS

- Establish vascular access if indicated. If lungs sound clear, consider bolus of 300 ml NS, may repeat.
- Place on cardiac monitor, obtain rhythm strip for documentation and upload to ePCR with a copy to receiving hospital. If possible, obtain a 12-lead ECG to better define the rhythm.
- Monitor and observe for changes in patient condition.

V. REFERENCES

Number	Name
11010	Medication - Standard Orders
11020	Procedure - Standard Orders

UNSTABLE BRADYCARDIA

I. FIELD ASSESSMENT/TREATMENT INDICATORS

- Signs of inadequate tissue perfusion/shock, ALOC, or ischemic chest discomfort.

II. BLS INTERVENTIONS

- Recognition of heart rate less than 60 bpm.
- Reduce anxiety, allow patient to assume position of comfort.

- Administer oxygen as clinically indicated.

III. LIMITED ALS (LALS) INTERVENTIONS

- Establish vascular access if indicated by inadequate tissue perfusion.
  - Administer IV bolus of 300 ml NS, may repeat one (1) time.
  - Maintain IV rate at TKO after bolus.
- Monitor and observe for changes in patient condition.

IV. ALS INTERVENTIONS

- Perform activities identified in the BLS and LALS Interventions.
- Place on cardiac monitor, obtain rhythm strip for documentation and upload to ePCR with a copy to receiving hospital. If possible, obtain a 12-lead ECG to better define the rhythm.
- Administer Atropine per ICEMA Reference #11010 - Medication -Standard Orders.
- If Atropine is ineffective, or for documented MI, 3rd degree AV Block with wide complex and 2nd degree Type II AV Block, utilize Transcutaneous Cardiac Pacing, per ICEMA Reference #11020 Procedure - Standard Orders.
- Contact base hospital if interventions are unsuccessful.

V. BASE HOSPITAL MAY ORDER THE FOLLOWING:

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For End Stage Renal Disease (ESRD) patients on dialysis with suspected hyperkalemia And hemodynamic instability, with documented sinus bradycardia, 3rd degree AV block and 2nd degree Type II AV Block, slow junctional and ventricular escape rhythms, or slow atrial fibrillation, administer Calcium Chloride per ICEMA Reference # 11010- Medication- Standard Orders

VI. REFERENCES

Number	Name
11010	Medication - Standard Orders
11020	Procedure - Standard Orders

PAIN MANAGEMENT - ADULT

I. PURPOSE

To define the prehospital use of analgesics for pain management to patients with moderate to severe pain.

II. FIELD ASSESSMENT/TREATMENT INDICATORS

The prehospital use of analgesics should be considered for the following patients who have a Glasgow Coma Score (GCS) of 15 or at a baseline mentation and have a pain score of five (5) or higher on a scale of 1 - 10:

- Acute traumatic injuries
- Acute abdominal/flank pain
- Burn injuries
- Cancer pain
- Sickle Cell Crisis

~~Special consideration must be given to the type of pain, the patient's overall condition, allergies, current medical conditions, and drug contraindications when deciding if pain management is appropriate and which pain medication to be administered.~~

The inability to recall a specific traumatic incident does not necessarily preclude the administration of pain medication.

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III. BLS INTERVENTIONS

- Attempt to calm, reduce anxiety, and allow patient to assume position of comfort.
- Utilize ice, immobilize and splint the affected area as indicated.
- Assess patients level of pain using the pain scale from 1 - 10 with 10 being the worst pain.
- Administer oxygen as clinically indicated per ICEMA Reference # 12010 - Patient Care Guidelines.

IV. ALS INTERVENTIONS

- Perform activities identified in the BLS Interventions.
- Consider early vascular access.
- Place on cardiac monitor. Obtain capnography, monitoring waveform and numerical value.
- Monitor and assess patient vital signs prior to administration of any analgesic.
- For treatment of pain as needed with a blood pressure of greater than 100 systolic:

- Fentanyl per ICEMA Reference # 11010 - Medication - Standard Orders, **or**
- Ketamine per ICEMA Reference # 11010 - Medication - Standard Orders, **or**
- **Tylenol** per ICEMA Reference # 11010 - Medication - Standard Orders (adult or pediatric patients), **for mild to moderate pain 1-5 on pain scale or in moderate to severe pain where other medications are contraindicated of deferred.**

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- For treatment of pain as needed with a blood pressure less than 100 systolic:
  - Ketamine per ICEMA Reference # 11010 - Medication - Standard Orders.
- After administration of any pain medication, continuous monitoring of patients ECG and capnography is required.
- Reassess and document vital signs, capnography, and pain scores every five (5) minutes.

V. SPECIAL CONSIDERATIONS

- Once a pain medication has been administered via route of choice, changing route (i.e., from IM to IV) requires base hospital order.
- Shifting from one analgesic while treating a patient requires base hospital contact.

Pain management should only be considered for patients that have a pain score of five (5) or higher on the below scale of 1 - 10.

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

VI. REFERENCES

Number	Name
11010	Medication - Standard Orders
12010	Patient Care Guidelines

AEMT CERTIFICATION

I. PURPOSE

To define requirements for the certification/recertification of an eligible applicant as an Advanced Emergency Medical Technician (AEMT) recognized in the State of California by the ICEMA Medical Director.

II. ELIGIBILITY

To be eligible for initial certification, an applicant shall meet the following requirements:

- Possess a current EMT certificate in the State of California and an AEMT course completion record or other documented proof of successful completion of the topics contained in an approved AEMT training program.
- Complete a criminal record clearance by the Department of Justice (DOJ) and the Federal Bureau of Investigation (FBI). Refer to ICEMA Reference #1070 - Criminal History Background Checks (Live Scan).
- Meet one of the following criteria:
  - Pass the National Registry of Emergency Medical Technicians (NREMT) - AEMT written and skills examination, possess a current and valid NREMT - AEMT card and documentation of successful completion of an AEMT course.
  - Pass the National Registry of Emergency Medical Technicians (NREMT) - AEMT written and skills examination and possess a current and valid out-of state AEMT certification card.
  - Possess a current and valid NREMT - AEMT card.
  - Possess a current and valid out-of-state or NREMT - AEMT certification or EMT-P license.
  - Possess a valid California license as a Physician, Registered Nurse, or a Physician Assistant and:
    - Documentation that applicant's training included the required course content contained in the U.S. Department of Transportation (DOT) National EMS Education Standards.
    - Documentation of five (5) ALS contacts in a prehospital field internship.

NOTE: An applicant currently licensed in California as an EMT-P is deemed to be certified as an AEMT with no further testing required **except** when the EMT-P license is under suspension. In the case of an EMT-P license under suspension, the EMT-P shall apply to ICEMA for AEMT initial certification.

III. PROCEDURE

Initial Certification

- Submit a completed online application using the ICEMA EMS Credentialing portal found on the ICEMA website at ICEMA.net, that includes:
  - Copy of a valid government issued photo identification.
  - Copy of valid EMT certification card issued in California.
  - Copy of a valid American Heart Association BLS Healthcare Provider, American Red Cross BLS Healthcare Provider ~~Professional Rescuer~~ ~~CPR~~ card or equivalent. Online course is acceptable with written documentation of skills portion.
  - Copy of completed Live Scan form.
  - Copy of valid NREMT - AEMT card.
  - Confirmation the applicant is not precluded from certification for reasons defined in the California Health and Safety Code, Section 1798.200
  - Disclosure of any certification or licensure action taken against any health related certification/license (EMT, AEMT, EMT-II or EMT-P). This includes any denial of certification by a local EMS agency (LEMSA), or in the case of an EMT-P, licensure denial/action by the California Emergency Medical Services Authority (EMSA), active investigations and actions taken in other states.
- Submit the established ICEMA and State EMSA fee. Fees paid for certification are not refundable or transferable. ICEMA fees are published on the ICEMA website at ICEMA.net.

  NOTE: If the applicant is not currently an ICEMA certified EMT, the State EMSA will require a new Live Scan for ICEMA and an initial State EMSA fee.
- The AEMT shall be responsible for notifying ICEMA of any and all changes in name, employer, email and/or mailing address within 30 calendar days of change. This notification/change may be made through the ICEMA EMS Credentialing portal found on the ICEMA website at ICEMA.net.
- The AEMT shall be responsible for notifying ICEMA of any and all subsequent arrests and/or convictions, during the certification period.
- Comply with other reasonable requirements, as may be established by ICEMA.

Effective Dates

The effective date of certification shall be the date the card is issued. The expiration date shall be the last day of the month two (2) years from the effective date.

Recertification

To recertify as an AEMT, an applicant shall:

- Possess a current AEMT certification issued in California.
- Submit a completed online application using the ICEMA EMS Credentialing portal found on the ICEMA website at ICEMA.net, that includes:
  - Copy of a valid government issued photo identification.
  - Copy of valid AEMT certification card issued in California, unless certified by ICEMA.
  - Copy of a valid American Heart Association BLS Healthcare Provider, American Red Cross Professional Rescuer CPR card or equivalent. Online course is acceptable with written documentation of skills portion.
  - Copy of completed AEMT skills competency verification form, EMSA-AEMT.
  - Skills competency shall be verified by direct observation of an actual or simulated patient contact. Skills competency shall be verified by an applicant who is currently certified or licensed as an AEMT, EMT-P, Registered Nurse, Physician Assistant, or Physician and who shall be designated as part of a skills competency verification process approved by ICEMA.
  - Proof of at least 36 hours of continuing education (CE) hours from an approved CE provider.
  - Confirmation the applicant is not precluded from certification for reasons defined in the California Health and Safety Code, Section 1798.200.
  - Disclosure of any certification or licensure action taken against any health related certification/license (EMT, AEMT, EMT-II or EMT-P). This includes any denial of certification by a LEMSA, or in the case of an EMT-P, licensure denial/action by the EMSA, active investigations and actions taken in other states.
- Submit the established ICEMA and State EMSA fee. Fees paid for certification are not refundable or transferable. ICEMA fees are published on the ICEMA website at ICEMA.net.

  NOTE: If the applicant is not currently an ICEMA certified EMT, the EMSA will require a new Live Scan for ICEMA and an initial State EMSA fee.
- The AEMT shall be responsible for notifying ICEMA of any and all changes in name, employer, email and/or mailing address within 30 calendar days of change. This notification/change may be made through the ICEMA EMS Credentialing portal found on the ICEMA website at ICEMA.net.
- The AEMT shall be responsible for notifying ICEMA of any and all subsequent arrests and/or convictions, during the certification period.
- Comply with other requirements as may be set forth herein.

Effective Dates

If the AEMT recertification requirements are met within six (6) months prior to the expiration date, the effective date of certification shall be the date immediately following the expiration date of the

current certificate. The certification expiration date will be the final day of the final month of the two (2) year period.

If the AEMT recertification requirements are met greater than six (6) months prior to the expiration date, the effective date of certification shall be the date the card is issued. The expiration date shall be the last day of the month two (2) years from the effective date.

Expiration While Deployed for Active Duty

An applicant who is deployed for active duty with a branch of the Armed Forces of the United States, whose AEMT certificate expires during the time the applicant is on active duty or less than six (6) months from the date the applicant is deactivated/released from active duty, may be given an extension of the expiration date of his/her AEMT certificate for up to six (6) months from the date of the applicant's deactivation/release from active duty in order to meet the renewal requirements for his/her AEMT certificate upon compliance with the following provisions:

- Provide documentation from the respective branch of the Armed Forces of the United States verifying the applicant's dates of activation and deactivation/release from active duty.

- If there is no lapse in certification, meet the requirements of "Recertification" section of this policy. If there is a lapse in certification, meet the requirements listed in the "Recertification After Lapse in Certification" section of this policy.

- Provide documentation showing that the CE activities submitted for the certification renewal period were taken not earlier than 30 days prior to the effective date of the applicant's AEMT certificate that was valid when he/she was activated for duty and not later than six (6) months from the date of deactivation/release from active duty.

- For an applicant whose active duty required him/her to use his/her AEMT skills, credit may be given for documented training that meets the requirements contained in ICEMA Reference #2020 - EMT Continuing Education Requirements while the applicant was on active duty. The documentation shall include verification from the applicant's Commanding Officer attesting to the classes attended.

Recertification After Lapse in Certification

The following requirements shall apply to an applicant whose AEMT certification has lapsed to be eligible for recertification:

- Lapse of less than six (6) months:

  Complete all requirements under AEMT Recertification above.

- Lapse of six (6) months or more, but less than 12 months:

  - Complete all requirements under AEMT Recertification above.

  - Complete an additional 12 hours of continuing education for a total of 48 hours of training.

- Lapse of 12 months or more, but less than 24 months:

  - Complete all requirements under AEMT Recertification above.

- Complete an additional 24 hours of continuing education for a total of 60 hours of training.
- Pass the NREMT - AEMT certifying exam.

- Lapse of 24 months or more:
  - Complete an entire AEMT course, **and**
  - Comply with all requirements of Initial Certification as set forth in this policy.

Effective Dates

The effective date of certification shall be the date the card is issued. The expiration date shall be the last day of the month two (2) years from the effective date.

IV. REFERENCES

Number	Name
1070	Criminal History Background Checks (Live Scan)
2020	EMT Continuing Education Requirements

EMT CERTIFICATION

I. PURPOSE

To define requirements for certification/recertification of an eligible applicant as an Emergency Medical Technician (EMT) recognized in the State of California.

II. ELIGIBILITY

To be eligible for initial certification, an applicant shall meet the following requirements:

- Be 18 years of age or older.
- Complete a criminal record clearance by the Department of Justice (DOJ) and the Federal Bureau of Investigation (FBI). Refer to ICEMA Reference #1070 - Criminal History Background Checks (Live Scan) prior to application for certification.
- Meet one of the following criteria:
  - Pass the National Registry of Emergency Medical Technicians (NREMT) - EMT written and skills examination, possess a current and valid NREMT - EMT card and documentation of successful completion of an initial EMT course (California or out-of-state) within two (2) years of the date of application, **or**
  - Pass the NREMT - EMT written and skills examination within two (2) years from the date of application for EMT certification and possess a current and valid out-of-state EMT certificate, **or**
  - Possess a current and valid NREMT - EMT, Advanced EMT (AEMT), or Paramedic (EMT-P) certificate, **or**
  - Possess a valid out-of-state AEMT or EMT-P certificate, **or**
  - Possess a current and valid California AEMT or a current and valid California EMT-P license.

NOTE: An EMT shall only be certified by one (1) certifying entity during a certification period.

III. PROCEDURES

Initial Certification

- Submit a completed online application using the ICEMA EMS Credentialing portal found on the ICEMA website at ICEMA.net, that includes:
  - A copy of a valid government issued photo identification.
  - A copy of a valid American Heart Association BLS Healthcare Provider, American Red Cross BLS Healthcare Provider ~~Professional Rescuer CPR~~ card or equivalent.
  - A copy of completed Live Scan form.
  - A copy of a valid certification as listed in Section II above.

- Disclose any prior and/or current certification, licensure, or accreditation actions:
  - Against an EMT, or AEMT certificate, or any denial of certification by a local EMS agency (LEMSA), including any active investigations;
  - Against a EMT-P license, or any denial of licensure by the authority, including any active investigation;
  - Against any EMS related certification or license of another state or other issuing entities, including denial and any active investigations, **or**
  - Against any health-related license.
- Disclose any pending or current criminal investigations.
- Disclose any prior convictions.
- Disclose each certifying entity or LEMSA to which the applicant has applied for certification in the previous 12 months.

- Submit the established ICEMA and State EMSA fee. Fees paid for certification are not refundable or transferable. ICEMA fees are published on the ICEMA website at ICEMA.net.
- The EMT shall be responsible for notifying the certifying entity of her/his proper and current mailing address and shall notify the certifying entity in writing within 30 calendar days of any changes of the mailing address, giving both the old and the new address, and EMT registry number. This notification/change may be made through the ICEMA EMS Credentialing portal found on the ICEMA website at ICEMA.net.
- The EMT shall be responsible for notifying ICEMA of any and all subsequent arrests and/or convictions, during the certification period.
- Comply with other requirements as may be set forth herein.

Effective Dates

The effective date of initial certification shall be the day the certificate is issued. The expiration date for an initial EMT certificate shall be the last day of the month two (2) years from the effective date of the initial certification.

Recertification

To recertify as an EMT, an applicant shall:

- Possess a current EMT certification issued in California.
- Meet one (1) of the following continuing education (CE) requirements:
  - Successfully complete a 24 hour refresher course from an approved EMT training program within the 24 months prior to applying for renewal, or
  - Obtain at least 24 hours of CE, with in the 24 months prior to applying for renewal, from an approved CE provider.

- Submit a completed online application using the ICEMA EMS Credentialing portal found on the ICEMA website at ICEMA.net, that includes the requirements listed in Section III above.

- Complete the criminal history background check requirements when changing certifying entities. Refer to ICEMA Reference #1070 - Criminal History Background Checks (Live Scan).

- Submit a completed skills competency verification form, EMSA-SCV (01/17).

- Skills competency shall be verified by direct observation of an actual or simulated patient contact. Skills competence shall be verified by an individual who is currently certified or licensed as an EMT, AEMT, EMT-P, Registered Nurse, Physician's Assistant, or Physician and who shall be designated by an EMS approved training program, or an EMS service provider. Verification of skills competence shall be valid for a maximum of two (2) years for the purpose of applying for recertification.

- Starting July 1, 2019, EMTs renewing their certification for the first time shall submit documentation of successful completion of the following training at an approved EMT training program or approved CE provider:

  - The use and administration of Naloxone or other opioid antagonist.

  - The use and administration of Epinephrine by auto-injector.

  - The use of a glucometer.

- Submit the established ICEMA and State EMSA fee. Fees paid for certification are not refundable or transferable. ICEMA fees are published on the ICEMA website at ICEMA.net.

  NOTE: If the applicant is not currently an ICEMA certified EMT, the EMSA will require a new Live Scan for ICEMA and an initial State EMSA fee.

- The EMT shall be responsible for notifying the certifying entity of her/his proper and current mailing address and shall notify the certifying entity in writing within 30 calendar days of all changes of the mailing address, giving both the old and the new address, and EMT registry number. This notification/change may be made through the ICEMA EMS Credentialing portal found on the ICEMA website at ICEMA.net.

Expiration While Deployed for Active Duty

A California certified EMT who is a member of the Armed Forces of the United States and whose certification expires while deployed on active duty, or whose certification expires less than six (6) months from the date they return from active duty deployment, with the Armed Forces of the United States, shall have six (6) months from the date they return from active duty deployment to complete requirements for recertification noted above.

In order to qualify for this exception, the applicant shall:

- Submit proof of his or her membership in the Armed Forces of the United States, **and**

- Submit documentation of his or her deployment starting and ending dates.

- CE credit may be given for documented training that meets the requirements of the California Code of Regulations, Title 22, Division 9, Chapter 11.

- The CE documentation shall include verification from the individual's Commanding Officer attesting to the training attended.

Effective Dates

- If the EMT renewal requirements are met within six (6) months prior to the expiration date, the effective date of renewal shall be the date immediately following the expiration date of the current certificate. The certification expiration date will be the last day of the month, two (2) years from the effective date.

- If requirements are met more than six (6) months prior to the expiration date, the effective date of renewal shall be the date the applicant satisfactorily completes all renewal requirements and has applied for certification. The certification expiration date will be the last day of the month two (2) years from the effective date.

Reinstatement of an Expired California EMT Certificate

The following requirements apply to applicants who wish to be eligible for reinstatement after their California EMT certificates have expired:

- Lapse of less than six (6) months the applicant must complete all requirements in Section III, under Recertification above.

- Lapse of six (6) months or more, but less than 12 months:

➢ Complete all requirements in Section III, under Recertification above.

➢ Complete one (1) of the following CE requirements:

  - Successfully complete a 24 hour refresher course from an approved EMT training program, and 12 hours of CE, within the 24 months prior to applying for reinstatement, **or**

  - Obtain at least 36 hours of CE, within the 24 months prior to applying for reinstatement, from an approved CE provider.

- Lapse of 12 months or more:

  ➢ Complete all requirements in Section III, under Recertification above.

  ➢ Complete one (1) of the following continuing education requirements:

    - Successfully complete a 24 hour refresher course from an approved EMT training program, and 24 hours of CE, within the 24 months prior to applying for reinstatement, **or**

    - Obtain at least 48 hours of CE, within the 24 months prior to applying for reinstatement, from an approved CE provider.

- Pass the National registry cognitive and psychomotor exams, within two (2) years of the date of application for EMT reinstatement unless the individual possess a current and valid EMT, AEMT, or EMT-P National Registry Certificate or a current and valid AEMT certificate or EMT-P license.

IV. REFERENCES

Number	Name
1070	Criminal History Background Checks (Live Scan)

MICN AUTHORIZATION - Base Hospital, Administrative, Flight Nurse, Critical Care Transport

I. PURPOSE

To define the requirements required for a Registered Nurse (RN) to obtain a Mobile Intensive Care Nurse (MICN) authorization within the ICEMA region.

II. POLICY

- All RNs working in a capacity that will require them to provide Advanced Life Support (ALS) services or to issue ICEMA protocol directed instructions to emergency medical services (EMS) field personnel within the ICEMA region shall submit a completed application and meet criteria established by the ICEMA Medical Director.

- All MICNs shall notify ICEMA of any and all changes in name, email and/or mailing address within 30 calendar days of change. This notification/change may be made through the ICEMA EMS Credentialing portal found on the ICEMA website at ICEMA.net.

- All MICNs shall notify ICEMA immediately of termination of their employment with an approved entity and/or employment by another ICEMA approved base hospital and/or non-base hospital employer. If employment with an approved EMS provider is terminated, the MICN authorization will be rescinded unless proof of other qualifying employment is received by ICEMA within 30 days.

- MICNs may hold authorization in multiple categories but must apply and submit all required documentation. MICN authorization may be added to or converted to another MICN category by meeting all requirements for authorization in that category.

III. PROCEDURE

General Procedures for MICN Authorization/Reauthorization

- Submit a completed online application using the ICEMA EMS Credentialing portal found on the ICEMA website at ICEMA.net for each MICN category applied for that includes:
  - Copy of a valid government issued photo identification.
  - Copy of a valid California RN license.
  - Proof of completion of an ICEMA approved MICN course with a passing score of at least 80 percent (80%). (MICN-BH Initial Authorization Only)
  - Copy (front and back) of a valid American Heart Association BLS Healthcare Provider, American Red Cross BLS Healthcare Provider~~Professional Rescuer CPR~~ card or equivalent. Online course is acceptable with written documentation of skills portion.
  - Copy (front and back) of a valid American Heart Association Advanced Cardiac Life Support (ACLS) card. ACLS cards that are obtained online must have hands on skills evaluation with an approved American Heart Association instructor.
- Submit the established ICEMA fee. Additional categories may be applied for without additional fee. Authorization cards issued within six (6) months of nursing license expiration is exempt from reauthorization fee. Fees paid for authorization are not

refundable or transferable. ICEMA fees are published on the ICEMA website at ICEMA.net.

MICN-BH Authorization by Challenge

- Meet one (1) of the following eligibility requirements:
  - MICN in another county if approved by the ICEMA Medical Director.
  - An eligible RN who has been a MICN in ICEMA region who has let authorization lapse longer than six (6) months.
- The MICN that is challenging authorization will be required to take the ICEMA written exam with a passing score of 80 percent (80%), unless waived by the ICEMA Medical Director.

ICEMA authorization will be effective from the date all requirements are verified and expire on the same date as the California RN license, provided all requirements continue to be met.

RCP AUTHORIZATION

I. PURPOSE

To define requirements for authorization/reauthorization of an eligible applicant as a Respiratory Care Practitioner (RCP) while working for an approved specialty care transport provider in the ICEMA region.

II. ELIGIBILITY

- Possess a current California RCP license.
- Current employment as an RCP by an ICEMA approved Advanced Life Support (ALS) or Basic Life Support (BLS) service provider.
- RCPs shall have a minimum of two (2) years critical care respiratory care experience in an acute care hospital within 18 months prior to initial application.

III. PROCEDURE

Authorization/Reauthorization

- Submit a completed online application using the ICEMA EMS Credentialing portal found on the ICEMA website at ICEMA.net that includes:
  - Copy of a valid government issued photo identification.
  - Copy of a valid California RCP license.
  - Copy (front and back) of a valid American Heart Association BLS Healthcare Provider, American Red Cross BLS Healthcare Provider ~~Professional Rescuer CPR~~ card or equivalent.
  - Copy (front and back) of a valid American Heart Association Advanced Cardiac Life Support (ACLS) card. ACLS cards that are obtained online must have hands on skills evaluation with an approved American Heart Association instructor.
- Submit any established ICEMA fees. Fees paid for authorization are not refundable or transferable. ICEMA fees are published on the ICEMA website at ICEMA.net.
- The RCP shall be responsible for notifying ICEMA of any and all changes in name, employer, email and/or mailing address within 30 calendar days of change. This notification change may be made through the ICEMA EMS Credentialing portal found on the ICEMA website at ICEMA.net.
- ICEMA authorization will be effective from the date all requirements are verified and expire on the same date as the California RCP license, provided all requirements continue to be met.

EMT-P STUDENT FIELD INTERNSHIP REQUIREMENTS

I. PURPOSE

To define the requirements for an Emergency Medical Technician - Paramedic (EMT-P) student intern to obtain a field internship in the ICEMA region.

NOTE: ICEMA approved preceptors are available to all training programs. ALS service providers may not reserve preceptors for specific training programs.

II. PRECEPTOR ELIGIBILITY

In order for an EMT-P preceptor to maintain a current preceptor status, the EMT-P must precept at least one (1) student within the 2-year period following the completion of the ICEMA approved preceptor training workshop. If the EMT-P preceptor does not precept a student within that two (2) year time frame, they will need to re-take an ICEMA approved workshop or they will be removed from the approved preceptor roster. Continual preceptorship of at least one (1) student in the subsequent two (2) year cycles will maintain current preceptor status without requiring attendance at another ICEMA approved preceptor training workshop.

III. EMT-P STUDENT INTERN ELIGIBILITY

- To be eligible for an EMT-P student field internship within the ICEMA region, an EMT-P student intern must:
  - Be currently enrolled in and have successfully completed the didactic and clinical rotations of an approved EMT-P training program.
  - Possess a valid American Heart Association BLS Healthcare Provider, American Red Cross BLS Healthcare Provider~~Professional Rescuer CPR~~ card or equivalent.
  - Possess a valid American Heart Association Advanced Cardiac Life Support (ACLS) card.
  - Be currently certified as an EMT, a California AEMT, or be registered as an EMT-Intermediate with the NREMT.
  - Have completed their hospital clinical shifts within the previous 90 days.

NOTE: CPR, ACLS, and EMT certification must be maintained throughout all phases of training.

IV. PROCEDURE

ICEMA Approved EMT-P Training Program Student Intern

- The Program Director or clinical coordinator must submit the following documentation for each student interning in the ICEMA region:
  - The name of the qualified ICEMA preceptor and the name of the student they are assigned to. The program director or clinical coordinator must inform ICEMA of any changes in the assigned preceptor and/or ALS provider hosting the internship.

- A letter verifying the training program administered an exam on ICEMA's policies and protocols and that the student successfully passed the exam.
- The completed ICEMA Course Completion Record showing the date the student completed the clinical shifts (field internship must begin within 90 days from the end of the clinical rotation).
- Copy of a current EMT, California AEMT certification or NREMT EMT-Intermediate.
- Copy (front and back) of a valid American Heart Association BLS Healthcare Provider, American Red Cross Professional Rescuer CPR card or equivalent. Online course is acceptable with written documentation of skills portion.
- Copy (front and back) of a valid American Heart Association Advanced Cardiac Life Support (ACLS) card. ACLS cards that are obtained online must have hands on skills evaluation with an approved American Heart Association instructor.

Out-of-Region EMT-P Training Program Student Intern

- The Program Director or clinical coordinator must submit the following documentation for each student interning in the ICEMA region:
  - A copy of the signed agreement between the training program and the approved ALS service provider hosting the internship.
  - The name of the qualified ICEMA preceptor and the name of the student they are assigned to. The program director or clinical coordinator must inform ICEMA of any changes in the assigned preceptor and/or ALS service provider hosting the internship.
  - The completed ICEMA Course Completion Record showing the date the student completed the clinical shifts (field internship must begin within 90 days from the end of the clinical rotation).
  - Copy of a current EMT, California AEMT certification or NREMT EMT-Intermediate.
  - Copy (front and back) of a valid American Heart Association BLS Healthcare Provider, American Red Cross Professional Rescuer CPR card or equivalent. Online course is acceptable with written documentation of skills portion.
  - Copy (front and back) of a valid American Heart Association Advanced Cardiac Life Support (ACLS) card. ACLS cards that are obtained online must have hands on skills evaluation with an approved American Heart Association instructor.
  - Evidence of an orientation to the ICEMA region, including policies and procedures.
- After ICEMA has approved all documents, the EMT-P student intern must schedule and pass the ICEMA EMT-P accreditation written examination with a minimum score of 80 percent (80%).

- A candidate who fails to pass the ICEMA EMT-P accreditation written examination on the first attempt will be required to re-take the exam with a minimum passing score of 85 percent (85%).
- Notification of the examination results shall be provided to the program director of the EMT-P training program.
- An out-of-region EMT-P student intern may not begin internship prior to successfully passing the ICEMA written examination.

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.

Capnography (EMT-P)

- Utilize capnography in patients with respiratory distress, respiratory failure, cardiac arrest, and critically ill patients
- Perform capnography prior to pain medication administration.
- Perform capnography after administration of Midazolam for behavioral emergencies.
- Monitor waveform, numerical value and document in ePCR.

Continuous Positive Airway Pressure Device (CPAP) - Adult (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 #110107040 - 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.

Nasogastric/Orogastric Tube (EMT-P)

- Use a water soluble lubricating jelly.
- ~~Required for all full arrest patient~~

Needle Cricothyrotomy (EMT-P)

- Absolute contraindication: Transection of the distal trachea.
- Monitor end-tidal CO_2 and wave form 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 pediatric emergency measuring tape (Broselow, etc.) or equivalent measuring from the top of the head to the heal of the foot.
- Monitor end-tidal CO_2 and wave form capnography.
- Monitor pulse oximetry.
- If unable to place ET after a maximum of three (3) intubation attempts (defined as placement of the laryngoscope in the mouth). If unsuccessful, continue with BVM airway management and transport to the nearest receiving hospital. If BVM is ineffective then attempt placement of supraglottic airway.
- Document verification of tube placement (auscultation, visualization, capnography).

Supraglottic Airway - Adult (EMT-P)

- Supraglottic airway is permitted only in patients who are unsuccessfully managed with BLS airway and oral endotracheal intubation.

- Supraglottic airway is permitted only in patients who are taller than the maximum length of a pediatric emergency measuring tape (Broselow, etc.) equivalent measuring from the top of the head to the heal of the foot.
- Monitor end-tidal CO_2 and wave form capnography.
- Monitor pulse oximetry.
- If unable to place after three (3) attempts (defined as placement of the soft gel into the mouth), continue with BLS airway and proceed to nearest receiving hospital.
- Document verification of SGA (auscultation, continuous capnography).

Spinal Motion Restriction (EMT, AEMT and EMT-P)

- Should be placed if patient meets the indicators, per ICEMA Reference #1409015010 - 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.

Synchronized Cardioversion (EMT-P)

- For anxiety prior to cardioversion, consider Midazolam per ICEMA Reference #110107040 - Medication - Standard Orders.
- For pain, consider Fentanyl per ICEMA Reference #110107040 - Medication - Standard Orders.
- 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.
- 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 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.
- For anxiety, consider Midazolam per ICEMA Reference #110107040 - Medication - Standard Orders.
- For pain, consider Fentanyl per ICEMA Reference #110107040 - Medication - Standard Orders.

- 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 #1404011~~050~~ - Tachycardias - Adult.

CARDIAC ARREST - ADULT

High performance (HP) CPR is an organized approach to significantly improve the chance of survival for patients who suffer an out-of-hospital cardiac arrest (OHCA). Return of spontaneous circulation (ROSC) is resumption of sustained perfusing cardiac activity associated with significant respiratory effort after cardiac arrest. Signs of ROSC include breathing, coughing, patient movement and a palpable pulse, or a measurable blood pressure without the use of an automatic compression device.

The principles for HP CPR include:

- Minimize interruptions of chest compressions.
- Ensure proper depth of chest compressions of 2" - 2.5" allowing full chest recoil (no leaning on chest).
- Proper chest compression rate at 100 - 120 per minute.
- Avoid compressor fatigue by rotating compressors every two (2) minutes. Ventilations shall be sufficient to cause minimal chest rise, avoiding hyperventilation as it can decrease survival.
- For Cardiac arrest related to drowning, refer to ICEMA Reference # 13060- Drowning/Submersion Injuries. ~~For cardiac arrest related to drowning, refer to ICEMA Reference # 13060- Drowning/Submersion Injuries.~~

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Advanced airways can be safely delayed in OHCA patients until ROSC is achieved if the airway is effectively managed by BLS Interventions. BVM offers excellent oxygenation and ventilation without disrupting high quality compressions.

Base hospital contact is not required to terminate resuscitative measures, if the patient meets criteria set forth below in the Termination of Efforts in the Prehospital Setting.

I. FIELD ASSESSMENT/TREATMENT INDICATORS

Cardiac arrest in a non-traumatic setting.

II. BLS INTERVENTIONS

- Assess patient, begin HP CPR and maintain appropriate BLS airway measures.
- Place patient on AED, if available. To minimize the "hands off" interval before a rhythm analysis/shock, complete chest compression cycle without an added pause for ventilations or pulse check just before rhythm analysis.
- If shock is advised, perform HP CPR compressions while AED is charging. Remove hands from patient and deliver shock then immediately resume uninterrupted HP CPR for two (2) minutes.
- Do not delay HP CPR for post-shock pulse check or a rhythm analysis.
- After two (2) minutes of HP CPR, analyze rhythm using AED while checking for pulse.

III. LIMITED ALS (LALS) INTERVENTIONS

- Perform activities identified in the BLS interventions.

- Establish peripheral intravenous access and administer a 500 ml bolus of normal saline (NS).

- BLS airway with BVM is the airway of choice during active HP CPR.

IV. ALS INTERVENTIONS

- Initiate HP CPR and continue appropriate BLS Interventions while applying the cardiac monitor without interruption to chest compressions.

- Determine cardiac rhythm and defibrillate if indicated. After defibrillation, immediately began HP CPR. Begin a two (2) minute cycle of HP CPR.

- Obtain IV/IO access.

- BLS airways should be maintained during active CPR. Endotracheal intubation is the advanced airway of choice if BLS airway does not provide adequate ventilation. Establish advanced airway per ICEMA Reference #11020 - Procedure - Standard Orders without interruption to chest compressions.

- Utilize continuous quantitative waveform capnography, for the monitoring of patients airway, the effectiveness of chest compressions and for possible early identification of ROSC. Document the waveform and the capnography number in mm HG in the ePCR.

  NOTE: Capnography **shall** be used for all cardiac arrest patients.

- Insert NG/OG tube to relieve gastric distension per ICEMA Reference #11020 - Procedure - Standard Orders.

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 HP CPR immediately after each defibrillation for two (2) minutes, without assessing the post-defibrillation rhythm.

- Administer Epinephrine per ICEMA Reference #11010 - Medication - Standard Orders every five (5) minutes, without interruption of HP CPR unless capnography indicates possible ROSC.

- Reassess rhythm for no more than ten (10) seconds after each two (2) minute cycle of HP CPR. If VF/VT persists, defibrillate as above.

- After two (2) cycles of HP CPR, consider administering:
  Lidocaine per ICEMA Reference #11010 - Medication - Standard Orders, may repeat.

- If patient remains in pulseless VF/VT after 20 minutes of CPR, consult base hospital.

Pulseless Electrical Activity (PEA) or Asystole

- Assess for reversible causes and initiate treatment.

- Continue HP CPR with evaluation of rhythm (no more than 10 seconds) every two (2) minutes.
- Administer fluid bolus of 300 ml NS IV, may repeat.
- Administer Epinephrine per ICEMA Reference #11010 - Medication - Standard Orders every 5 (five) minutes without interruption of HP CPR.
- Base hospital may order the following:
  - Sodium Bicarbonate per ICEMA Reference #11010 - Medication Standard Orders.
  - Calcium Chloride per ICEMA Reference #11010 - Medication Standard Orders.

Stable ROSC

- Obtain a 12-lead ECG, regardless of 12-lead ECG reading, transport to the closest STEMI Receiving Center, per ICEMA Reference #9030 - Destination.
- Monitor ventilation to a capnography value between 35 mm Hg and 45 mm Hg.
- Utilize continuous waveform capnography to identify loss of circulation.
- For persistent profound shock and hypotension, administer Push Dose Epinephrine per ICEMA Reference #11010 - Medication - Standard Orders.
- Base hospital may order the following:
  - For post ROSC agitation, administer Midazolam per ICEMA Reference # 11010-Medication Standard Orders

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 no ROSC is achieved and capnography waveform reading remains less than 15 mm Hg after 20 minutes of HP CPR with ALS Interventions, and any of the following criteria are met:
  - No shocks were delivered.
  - Arrest not witnessed by EMS field personnel.
  - Persistent asystole, agonal rhythm or pulseless electrical activity (PEA) at a rate of less than 40 bpm.
- If patient has any signs of pending ROSC (i.e., capnography waveform trending upwards, PEA greater than 40 bpm), then consider transportation to a STEMI Receiving Center.
- Contact local law enforcement to advise of prehospital determination of death.
- Provide comfort and care for survivors.

V. REFERENCES

Number	Name
9030	Destination
11010	Medication - Standard Orders
11020	Procedure - Standard Orders
13060	Drowning/Submersion Injuries

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

High performance (HP) CPR is an organized approach to significantly improve the chance of survival for patients who suffer an out-of-hospital cardiac arrest (OHCA). Return of spontaneous circulation (ROSC) is resumption of sustained perfusing cardiac activity associated with significant respiratory effort after cardiac arrest. Signs of ROSC include breathing, coughing, patient movement and a palpable pulse, or a measurable blood pressure without the use of an automatic compression device.

The principles for HP CPR include:

- Minimize interruptions of chest compressions.
- Compression rate shall be between of 100 - 120 per minute allowing full chest recoil at a depth of at least one-third (1/3) the anteroposterior diameter of the chest until the age of puberty.
- Avoid compressor fatigue by rotating compressors every two (2) minutes.
- Avoid hyperventilation as it can decrease survival.
- Ventilate at a rate of 12 - 20 per minute. Ventilation rate decreases as patient age increases. Volumes shall be the minimum necessary to cause chest rise.
- For cardiac arrest related to drowning, refer to ICEMA Reference # 13060-Drowning/Submersion Injuries. ~~For cardiac arrest related to drowning, refer to ICEMA Reference # 13060-Drowning/Submersion Injuries.~~

Advanced airways can be safely delayed in OHCA patients until ROSC is achieved if the airway is effectively managed by BLS Interventions. BVM offers excellent oxygenation and ventilation without disrupting high quality compressions.

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.

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, begin HP CPR, and maintain appropriate BLS airway measures.
- If available, utilize AED for patients one (1) year of age or older. To minimize the "hands off" interval before a rhythm analysis/shock, complete chest compressions cycle, without an added pause for ventilations or pulse check just before rhythm analysis.
- If shock is advised, perform HP CPR compressions while AED charging. Remove hands from patient and deliver shock then immediately resume uninterrupted HP CPR for two (2) minutes.
- Do not delay HP CPR for post-shock pulse check or a rhythm analysis.

III. LIMITED ALS (LALS) INTERVENTIONS

- Perform activities identified in the BLS Interventions.
- Initiate HP CPR while applying the AED.
- Obtain IO/IV access (IO is preferred for under nine (9) years of age).
- 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.
  - 1 day to 8 years: 20 ml/kg NS
  - 9 to 14 years: 300 ml NS

IV. ALS INTERVENTIONS

- Initiate HP CPR and continue appropriate BLS Interventions while applying the cardiac monitor without interruption to chest compressions.
- Determine the cardiac rhythm and defibrillate at 2 j/kg (or manufacturer's recommended equivalent) if indicated. After defibrillation, immediately resume HP CPR. Begin a two (2) minute cycle of HP CPR.
- Obtain IO/IV access (IO is preferred).
- Utilize continuous quantitative waveform capnography, for monitoring of patients airway, the effectiveness of chest compressions and for early identification of ROSC. Document the waveform and the capnography number in mm Hg in the ePCR.
- Continue with BLS airway management ensuring adequate ventilations. BLS airways should be maintained during active CPR.
- Endotracheal intubation is the advanced airway of choice if BLS airway does not provide adequate ventilation. Endotracheal intubation may only be performed on patients who are taller than maximum length of a pediatric emergency measuring tape (Broselow, etc.) or equivalent, measuring from the top of the head to the heel of the foot per ICEMA Reference #11020 - Procedure - Standard Orders.

  NOTE: Capnography **shall** be used for all cardiac arrest patients.
- Insert NG/OG tube per ICEMA Reference #11020 - Procedure - Standard Orders.

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 HP CPR immediately after each defibrillation for two (2) minutes without assessing the post-defibrillation rhythm.
- Administer Epinephrine per ICEMA Reference #11010 - Medication - Standard Orders every five (5) minutes, without interruption of HP CPR, unless capnography indicates possible ROSC.

- Reassess rhythm for no more than 10 seconds after each two (2) cycles of HP CPR. If VF/VT persists, defibrillate as indicated above.
- After two (2) cycles of HP CPR, consider administering Lidocaine per ICEMA Reference #11010 - Medication - Standard Orders, may repeat.
- If patient remains in pulseless VF/VT after 20 minutes of HP CPR, consult base hospital.

Pulseless Electrical Activity/Asystole

- Assess for reversible causes and initiate treatment.
- Continue HP CPR with evaluation of rhythm (no more than 10 seconds) 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 #11010 - Medication - Standard Orders every five (5) minutes without interruption of HP CPR.

Stable ROSC

- Obtain a 12-lead ECG, upload and document then transport to the closest receiving hospital.
- Utilize continuous waveform capnography, to identify loss of circulation.
- Obtain blood glucose level. If indicated administer:
  - Dextrose per ICEMA Reference #11010 - Medication - Standard Orders.
  - May repeat blood glucose level. Repeat Dextrose per ICEMA Reference #11010 - Medication - Standard Orders if indicated.
- For suspected opiate overdose, administer Naloxone per ICEMA Reference #11010 - Medication - Standard Orders.
- For continued signs of shock and hypotension with SBP of less than 70 mm Hg **after** successful resuscitation administer Push Dose Epinephrine per ICEMA Reference #11010 - Medication - Standard Orders.
- Base hospital physician may order additional medications or interventions as indicated by patient condition.

V. REFERENCES

Number	Name
11010	Medication - Standard Orders
11020	Procedure - Standard Orders
13060	Drowning/Submersion Injuries

TRAUMA - PEDIATRIC (Less than 15 years of age)

I. FIELD ASSESSMENT/TREATMENT INDICATORS

Any pediatric trauma patient less than 15 years of age meeting trauma triage criteria requiring rapid transportation to the closest pediatric trauma center.

- Refer to ICEMA Reference #9040 - Trauma Triage Criteria and ICEMA Reference #9030 - Destination.
- Contact the receiving pediatric trauma center as soon as possible in order to activate the pediatric trauma team.
  - ➢ Inyo and Mono Counties contact the assigned base hospital for determination of appropriate destination.

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

II. BLS INTERVENTIONS

- Ensure thorough initial assessment.
- Ensure patient airway, protecting cervical spine.
- Oxygen and/or ventilate as needed, O_2 saturation (if BLS equipped).
- Keep patient warm and reassure.
- For a traumatic full arrest, an AED may be utilized, if indicated.
- Transport to ALS intercept or to the closest receiving hospital.

A. Manage Special Considerations

- **Spinal Motion Restriction**: Using age appropriate assessments, if the patient meet(s) any of the following indicators using the acronym (NSAID):

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

  - ➢ Consider maintaining spinal alignment on the gurney, or using spinal motion restriction on an awake, alert and cooperative patient, without the use of a rigid spine board.
  - ➢ Penetrating trauma without any NSAID indicators are not candidates for spinal immobilization using spine board.

- **Spinal Motion Restriction with use of a Rigid Spine Board**: If the use of a rigid, spine board is indicated, and the level of the patient's head is greater than that of the torso, use approved pediatric spine board with a head drop or arrange padding on the board so that the ears line up with the shoulders and keep the entire lower spine and pelvis in line with the cervical spine and parallel to the board.

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

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

  - **Partial amputation**: Splint in anatomic position and elevate the extremity.

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

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

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

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

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

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

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

- **Head and Neck Trauma**: Place brain injured patients in reverse Trendelenburg (elevate the head of the backboard 15 - 20 degrees), if the patient exhibits no signs of shock.

  - **Eye**: Whenever possible protect an injured eye with a rigid dressing, cup or eye shield. Do not attempt to replace a partially torn globe - stabilize it in place with sterile saline soaked gauze. Cover uninjured eye.

  - **Avulsed Tooth**: Collect teeth, place in moist, sterile saline gauze and place in a plastic bag.

- **Impaled Object**: Immobilize and leave in place. Remove object if it interferes with CPR, or if the object is impaled in the face, cheek or neck and is compromising ventilations.

- **Traumatic Arrest**: CPR if indicated. May utilize an AED if indicated.

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

III. LIMITED ALS (LALS) INTERVENTIONS

- Perform identified BLS interventions and additional LALS interventions.

  ➢ Unmanageable Airway: When an adequate airway cannot be maintained by a BVM device, transport to the closest most appropriate receiving hospital.

- IV Access (warm IV fluids when available).

  ➢ *Unstable:* Vital signs (age appropriate) and/or signs of inadequate tissue perfusion, start 2nd IV access.

  Administer 20 ml/kg NS bolus IV.

  ➢ *Stable*: Vital signs (age appropriate) and/or signs of adequate tissue perfusion.

  Saline lock only, do not administer IV fluids.

- Transport to appropriate hospital. Pediatric patients identified as CTP will be transported to a Pediatric Trauma Center when there is less than a 20 minute difference in transport time to the Pediatric Trauma Center versus the closes Trauma Center.

A. Manage Special Considerations

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

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

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

B. Determination of Death on Scene

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

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

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

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

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

- **Precautions and Comments**:

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

  - Confirm low blood sugar in children and treat as indicated with altered level of consciousness.

  - Suspect child maltreatment when physical findings are inconsistent with the history. Remember reporting requirements for suspected child maltreatment.

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

IV. ALS INTERVENTIONS

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

- Establish advanced airway as indicated per ICEMA Reference #11020 -Procedure - Standard Orders.

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

- Establish IV/IO Access (warm IV fluids when available).

  - *Unstable:* Vital signs (age appropriate) and/or signs of inadequate tissue perfusion, start 2nd IV access.

    Administer 20 ml/kg NS bolus IV.

  - *Stable*: Vital signs (age appropriate) and/or signs of adequate tissue perfusion.

    Saline lock only, do not administer IV fluids.

- Monitor ECG.

- Insert nasogastric/orogastric tube as indicated.

A. **Manage Special Considerations**

- **Blunt Chest Trauma**: Perform needle thoracostomy for chest trauma with symptomatic respiratory distress.
- **Fractures**
  - **Pain Relief**:
    - Administer an appropriate analgesic per ICEMA Reference #14100 - Pain Management – Adult and Pediatric. Document vital signs and pain scales every five (5) minutes until arrival at destination.
    - ~~Fentanyl per ICEMA Reference #11010 - Medication - Standard Orders.~~
    - For patients four (4) years old and older, consider Ondansetron per ICEMA Reference #11010 - Medication - Standard Orders.
- **Impaled Object**: Remove object upon Trauma base hospital physician order, if indicated.

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

- *Severe Blunt Force Trauma Arrest*: If indicated, transport to the closest receiving hospital.
- *Penetrating Trauma Arrest*: If indicated, transport to the closest receiving hospital.
- If the patient does not meet the "Obvious Death Criteria" in ICEMA Reference #14250 - Determination of Death on Scene, contact the Trauma base hospital for determination of death on scene for those patients who suffer a traumatic cardiac arrest in the setting of penetrating trauma with documented asystole in at least two (2) leads, and no reported vital signs (palpable pulse and/or spontaneous respirations) during the EMS encounter with the patient.
- Resuscitation efforts on a penetrating traumatic arrest victim are not to be terminated without Trauma base hospital contact.

V. REFERENCES

Number	Name
9010	Continuation of Care (San Bernardino County Only)
9030	Destination
9040	Trauma Triage Criteria
11010	Medication - Standard Orders
11020	Procedure - Standard Orders
14150	Cardiac Arrest - Pediatric (Less than 15 years of age)
14250	Determination of Death on Scene

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 #9030 - 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 #10010 - 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/kg NS bolus IV/IO, may repeat one (1) time.
  - *Stable*: Vital signs (age appropriate) and/or signs of adequate tissue perfusion.
  - Less than 5 years of age: IV NS 150 ml per hour
  - More than 5 years of age - Less than 15 years of age: IV NS 250 ml per hour
- Transport to appropriate facility:
  - Critical trauma patients with associated burns or burn patients sustaining critical trauma, should be transported to the closest Trauma Center. Trauma base hospital contacted shall be made.
- Refer to Section V - Burn Classifications below.

A. Manage Special Considerations

- **Respiratory Distress**:
  - Albuterol per ICEMA Reference #11010 - 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 #10010 - 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 #11020 - Procedure - Standard Orders for patients who are taller than the maximum length of a

pediatric emergency measuring tape (Broselow, etc.) or equivalent measuring from the top of the head to the heel of the foot.

- ➢ Airway Stabilization: Burn patients with respiratory compromise or potential for such, will be transported to the closest receiving hospital for airway stabilization.

- Insert nasogastric/orogastric tube as indicated.
- Monitor ECG.
- Treat pain as indicated.
  - ➢ Administer an appropriate analgesic per ICEMA Reference #14100 - Pain Management – Adult and Pediatric. Document vital signs and pain scales every five (5) minutes until arrival at destination.
  - ~~➢ Fentanyl per ICEMA Reference #11010 - 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.
- Refer to Section V - Burn Classifications below.

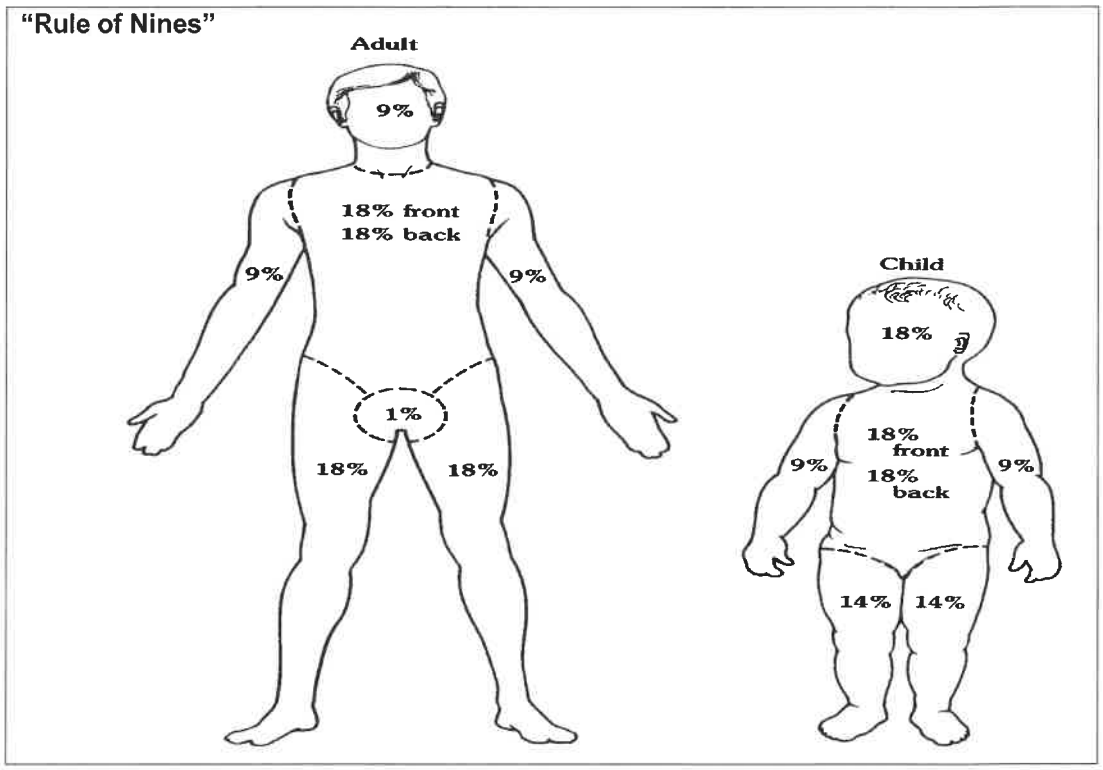
A. Manage Special Considerations

- **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 #11020 - Procedure - Standard Orders for patients who are taller than the maximum length of a pediatric emergency measuring tape (Broselow, etc.) or equivalent measuring from the top of the head to the heal of the foot.
  - ➢ Albuterol per ICEMA Reference #11010 - 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 #10010 - 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
MINOR - PEDIATRIC • Less than 5% TBSA • Less than 2% Full Thickness	**CLOSEST MOST APPROPRIATE RECEIVING HOSPITAL**
MODERATE - 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**
MAJOR - PEDIATRIC • More than 10% TBSA • More than 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
9030	Destination
10010	Determination of Death on Scene
11010	Medication - Standard Orders
11020	Procedure - Standard Orders

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.
- Place nasopharyngeal/oropharyngeal airway as indicated
- Administer oxygen using nasal cannula or non-rebreather mask as indicated.
- Place patient on left side to avoid inhaling any possible vomit.
- Report use of nasopharyngeal/oropharyngeal airway or administration of oxygen to EMS field personnel for documentation on the electronic patient care report (ePCR).
- Public safety personnel shall complete report per the public safety agency's 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 (BVM) is available).
- Obtain AED if possible.
- Continue CPR as indicated.
- Place nasopharyngeal/oropharyngeal airway as indicated
- Administer oxygen using non-rebreather mask or BVM as indicated.
- Consider environmental causes of decreased breathing, such as possible opioid overdose or exposure to nerve agents.
- Report use of nasopharyngeal/oropharyngeal airway or administration of oxygen to EMS field personnel for documentation on the ePCR.

- Public safety personnel shall complete report per the public safety agency's policy.

OPTIONAL SKILLS AND MEDICATIONS (Authorized Public Safety Personnel)

I. PURPOSE

To define the requirements for authorized public safety personnel to provide certain optional skills and administer selected medications within the ICEMA region, as specified in California Code of Regulations, Title 22, Division 9, Chapter 1.5, First Aid and CPR Standards Training for Public Safety Personnel.

II. POLICY

Upon approval of a public safety agency or department, public safety personnel may administer the following medications and/or perform the following optional skills:

- Epinephrine by auto-injector for suspected anaphylaxis.
- Oxygen using nasal cannula, non-rebreather mask, or bag-valve-mask.
- Atropine and Pralidoxime Chloride by auto-injector for nerve agent exposure for self or peer care.
- Naloxone intranasal spray for suspected narcotic overdose.
- Oropharyngeal (OPA) or Nasopharyngeal (NPA) airways

Public Safety Agencies

- For those courses requiring ICEMA approval, Public safety agencies must submit a request for course approval for each optional skill, per ICEMA Reference #2040 - Public Safety Optional Skills Course Approval.
- Public safety agencies approved for optional skills will be identified by ICEMA.
- Public safety agencies approved by ICEMA will determine deployment of the selected medications within their jurisdiction and notify ICEMA of those public safety personnel that carry any of the selected medications for emergency administration.

Public Safety Personnel

- Public safety personnel working for ICEMA approved public safety agencies or departments who have completed ICEMA approved optional skill training may administer the associated medications or skills by authority of the ICEMA Medical Director.
- Retraining in each approved optional skill is required every two (2) years.
- Current certification in Basic Life Support (AHA, American Red Cross, or ICEMA approved equivalent) and training in Public Safety First Aid and CPR is required of public safety personnel approved for any optional skill and medication.

III. PROCEDURE

Public safety personnel working for authorized public safety agencies and who have completed the appropriate training/retraining may administer the following medications and perform the following optional skills:

- Epinephrine using EpiPen or Epinephrine auto-injector, per ICEMA Reference #15010 - Allergic Reaction and Anaphylaxis (Authorized Public Safety Personnel).
- Atropine and Pralidoxime Chloride using Mark I or DuoDote auto-injector (Nerve Agent Antidote Kit - NAAK), per ICEMA Reference #15020 - Nerve Agent Exposure (Authorized Public Safety Personnel).
- Naloxone intranasal spray, per ICEMA Reference #15030 - Opioid Overdose (Authorized Public Safety Personnel).
- Oxygen using nasal cannula, non-rebreather mask or bag-valve-mask, per ICEMA Reference #15040 - Respiratory Distress (Authorized Public Safety Personnel).
- Oropharyngeal (OPA) or Nasopharyngeal (NPA) airways as indicated per ICEMA Reference #15040 – Respiratory distress (Authorized Public Safety Personnel).
-

IV. DATA COLLECTION

- Authorized public safety personnel shall report all uses of optional skills and medication to responding EMS field personnel.
- EMS field personnel shall document the "prior to arrival" administration of medication by public safety personnel.
- Public safety personnel shall complete report per the public safety agency's policy.

V. SAFETY AND MONITORING

- Optional skills and medication administration for public safety personnel will be evaluated and monitored per the ICEMA Quality Improvement Plan.
- Authorized public safety agencies and public safety personnel shall ensure that the storage and rotation of medications are consistent with the manufacturer's policies.

VI. REFERENCES

Number	Name
2040	Public Safety Optional Skills Course Approval
15010	Allergic Reaction and Anaphylaxis (Authorized Public Safety Personnel)
15020	Nerve Agent Exposure (Authorized Public Safety Personnel)
15030	Opioid Overdose (Authorized Public Safety Personnel)
15040	Respiratory Distress (Authorized Public Safety Personnel)