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

Inland Counties Emergency Medical Agency

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

DATE: March 27, 2024

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

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

SUBJECT: 30-DAY NOTIFICATION FOR PUBLIC COMMENT

Public comment for the policies and protocols listed below will occur at the next Medical Advisory Committee meeting on April 25, 2024, 1:00 pm, at the ICEMA office. Please review and bring suggestions for modification to the meeting.

ICEMA Reference Number and Name

3070	Ambulance Exemption Policy **(New)**
6120	Special Event and Mass Gathering Event **(New)**
7010	Standard Drug and Equipment list – BLS/LALS/ALS
8010	Interfacility Transfer Guidelines
10050	Opioid Withdrawal
11010	Medication Standard Orders
11020	Procedures – Standard Orders
12010	Patient Care Guidelines
14090	Trauma – Adult (15 years of age and older)
14180	Trauma – Pediatric (Less than 15 years of age)
14280	Sepsis **(New)**

DM/RV

Enclosure

c: File Copy

POLICIES/PROTOCOLS CHANGES 30 DAY PUBLIC COMMENT

Reference #	Name	Changes
DELETIONS		
UPDATED		
7010	Standard Drug and Equipment list- BLS/LALS/ALS	Pediatric i-gel sizes added Buprenorphine was changed to Suboxone
8010	Interfacility Transfer Guidelines	Heparin Lock was removed Language added for clarification on base hospital contact during IFT
10050	Opioid Withdrawal	Age was reduced to under 16 Pregnancy removed as exclusion criteria Buprenorphine was replaced with Suboxone Base Hospital contact requirement removed Language for receiving facility updated Language added: Authorized for transport providers with non-transport providers optional
11010	Medication-Standard Orders	Buprenorphine was changed to Suboxone (buphrenorphine-naloxone) Diazepam was added for seizures when midazolam is not available commercially. Epinephrine auto injector was added for consistency with other policies Traumatic shock added as an indication Epinephrine (Push Dose epinephrine) with base station contact Behavioral emergencies added as indication for midazolam for pediatrics with base contact.
11020	Procedures- Standard Orders	Supraglottic airway added for pediatrics Language updated for clarity
12010	Patient Care Guidelines	Language for fluid resuscitation added for clarity
14090	Trauma-Adult (15 years of age and older)	Epinephrine (Push dose epinephrine) for traumatic shock added with base contact
14180	Trauma-Pediatric (Less than 15 years of age)	SGA added as a procedure for unmanaged airway

POLICIES/PROTOCOLS CHANGES 30 DAY PUBLIC COMMENT

NEW		
3070	Ambulance Exemption	To define the process for exemption approval and response time compliance.
6120	Special Event and Mass Gathering Event	To establish a policy and procedure for approval of special event providers within the ICEMA region.
14280	Sepsis	To facilitate rapid identification and treatment of patients with suspected sepsis.

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AMBULANCE EXEMPTION POLICY

I. PURPOSE

To define the process for ambulance exemption approval and response time compliance.

II. POLICY/PROCEDURE

A. RESPONSE TIME MANAGEMENT

Ambulance dispatch CAD data and the FirstWatch On-line Compliance Utility (OCU) program shall be used to calculate response times. Until such time as the OCU provides performance data directly to ICEMA, ambulance providers shall submit a monthly report to ICEMA in a manner specified by the ICEMA Administrator in accordance with contractual obligation and this policy.

Ambulance Response Time measures are designed to provide the appropriate prehospital clinical care in a time frame that is appropriate to the patient situation and set forth in contract with the ambulance contractor. Response Time shall be measured in minutes and integer (whole) seconds and compliance determined on a fractile percentage basis in accordance with the ambulance contract.

Ambulance providers shall commit to employ whatever level of resources is necessary to achieve the contractual response time requirements for ambulance service requests located within each EOA. Once the ambulance provider has determined the level of resources necessary to achieve the contractual Response Time requirements for each EOA, but in no case exceeding thirty (30) days from the effective date of this policy, the ambulance provider shall provide an ongoing current deployment plan for review and approval by ICEMA.

III. CALCULATION OF RESPONSE TIMES

A. START OF RESPONSE TIMES:

1. Calculation of Response Time shall begin when the following information, is transmitted to the assigned ambulance provider's communications center:

   a. Exact address or descriptive location such as building or landmark, intersection, or freeway / highway location.

   b. For dispatching agencies that are designated secondary PSAPs, the response time calculation will start after pre-dispatch questioning and/or caller instruction is completed (including approved EMD steps if used), and the call is in queue to send to the responding unit. For agencies that are not designated as a secondary PSAP, the response time calculation will start when the call is received from the secondary PSAP."

   c. If an ambulance is not available at the time that the ambulance provider dispatch center receives the call, the dispatcher will make a note in the automated dispatch system record that no ambulance was available.

2. Each incident is a separate response: Each incident will be counted as a single response regardless of the number of units that are utilized.

3. The Response Time of the ambulance provider's first arriving emergency ambulance will be used to compute ambulance Response Time for that incident.

B. STOP OF RESPONSE TIMES:

a. The time stamp in provider's CAD that indicates that the responding crew has advised, either electronically or verbally via radio or telephone communications, that they have arrived at the assigned address/location.

b. If the responding crew arrives on the scene of the incident but fails to transmit this information to providers dispatch, a geofence distance from the incident address within 100 meters where 0.00 m.p.h. would be recognized as ON SCENE or policy when crew pushes "On Scene" which is defined as fully stopped (wheels not in motion or 0.00 m.p.h.) at the location where it shall be parked during the incident shall be used.

c. In the case of encumbered/restricted access to the patient, the term "On Scene" shall be understood to mean the time the emergency ambulance arrives at the restricted access point, e.g., staging area at the gate of a closed gated area, or rendezvous point to be escorted to the patient by another individual.

d. At the time that dispatch notifies the assigned ambulance to cancel its response.

C. RESPONSE TIME CORRECTIONS AND EXEMPTIONS

1. Ambulance provider may request Response Time Correction(s) of arrival on scene time(s). In incidents when the assigned ambulance crew fails to report their arrival on scene, the time of the next communication to dispatch by crew or other on scene personnel that indicates that the ambulance has already arrived at the scene shall be used as the arrival on scene time. Alternatively, on scene time may be validated by CAD timestamp and Global Positioning System (GPS) based on Automatic Vehicle Location (AVL) technology playback.

a. In some cases, certain specified responses will be corrected by ICEMA and thereby deemed as compliant responses to be included in Response Time compliance calculations. These Response Time Correction(s) will be for good cause only, as reasonably determined by ICEMA. The burden of proof that there is good cause for the correction shall rest with the ambulance provider.

b. Ambulance provider shall file a request for each desired Response Time Correction or Exemption monthly with ICEMA via the online compliance utility (OCU) within 15 business days from the end of the compliance period or in a written report until OCU is established. Such request shall list the date, the time, and the specific circumstances causing the delayed response. ICEMA contract monitor personnel shall grant or deny corrections to performance standards and shall advise the ambulance provider utilizing the OCU.

c. Until such time as the OCU provides performance data directly to ICEMA, the Ambulance provider shall submit these requests in a report to ICEMA in a manner specified by ICEMA contract monitor personnel in accordance with the

standard data formatting outlined in the ICEMA Response Time Submissions Guideline (8/30/2013).

Response time exemptions include, and are limited to:

See Attachment A (ICEMA Exemption List)

D. RESPONSE TIME EXEMPTIONS

1. Ambulance provider shall maintain sufficient resources to achieve the specified Response Time Standards. Ambulance provider shall be responsible for prudent and reasonable planning and action related to system deployment as set forth in the provider's contract. In the monthly calculation of Ambulance provider's performance to determine compliance with Response Time Standards, every request for ambulance service from the primary or secondary PSAP shall be included. Exemptions may be made on specified responses which will be excluded from Response Time compliance calculations and liquidated damages. It is the Ambulance provider's responsibility to demonstrate good cause for the Exemption. Ambulance provider may request that a response be excluded from the calculation of Response Time Standards, if that call meets the criteria defined below. If ICEMA contract monitor personnel grants an Exemption, the call will be neither late nor compliant and the call will be removed from the compliance calculation. Ambulance provider shall file a request for each desired Response Time Exemption monthly with ICEMA via the OCU within 15 business days of the end of the previous month. Such request shall list the specific Exemption Code from attachment A along with the date, time, and specific circumstances causing the delayed response. ICEMA contract monitor personnel shall grant or deny Exemptions to performance standards and shall so advise the Ambulance provider. ICEMA contract monitor personnel will respond to Exemption requests utilizing the OCU. Until such time as the OCU provides performance data directly to ICEMA, the Ambulance provider shall submit these requests in a report to ICEMA in a manner specified by ICEMA contract monitor personnel.

E. RESPONSE TIME REPORTING REQUIREMENTS

1. Response Time performance reporting requirements and documentation of incident time shall include, but is not limited to:

    a. Time call received by ambulance dispatch center from a Secondary PSAP. In the case where the secondary PSAP is dispatching its own ambulance, the time when the incident is sent to queue for dispatching.

    b. Time ambulance crew assigned.

    c. Time enroute to scene

    d. Arrival on scene time or canceled enroute.

    e. Total on scene time.

    f. Time canceled on scene or enroute to transport destination.

    g. Total time to transport to destination:

    h. Arrival time at the destination.

i. Time available at the destination (i.e., return to in service status).

2. Ambulance provider must synchronize its clocks with the Universal Time Coordinated (UTC) according to Pacific Standard Time PST. UTC is the basis for civil time. This 24-hour time standard is kept using highly precise atomic clocks combined with the earth's rotation.

F. SUPPORTING DOCUMENTATION

1. Requests for Exemptions should include documentation to support the request.

   This report shall include but is not limited to:

   - Run number with response date and time
   - Unit number
   - Units on duty across all of provider's EOA's at time of call
   - Number of available units across all EOA's (Level number) at time of call
   - Deployment Plan
   - Busy units
   - Exemption code / reason and note

Requests for Ambulance Patient Offload Delay (APOD) should also include:

- Units on bed delay
- Unit numbers
- Unit destination
- Time call was received
- Time arrived at destination
- Transfer of care time
- Time the unit is back in service
- Number of deployed units
- Level of service (ALS or BLS)
- Deployment plan with baseline percentage of fully staffed units
- Shift start
- Shift end

ICEMA may request the following verification tools:

- CAD snapshot
- Posting locations
- Map or description of route taken by responding unit

III. DEFINITIONS

Ambulance Patient Offload Delay (APOD): The occurrence of a patient remaining on the ambulance gurney and/or the emergency department has not assumed responsibility for patient care beyond the local emergency medical system authority approved ambulance patient offload time.

Exemption: Any response or group of responses that should be exempt from response time standards due to unusual circumstances beyond a provider's reasonable control.

Response Time Performance Requirement: The overall response time performance requirement for services under contractual agreement is intended to ensure that the provider responds to each incident with an appropriate resource in accordance with ICEMA policies and procedures. The standards set forth herein establish the level of response time performance required by provider for calls within the designated EOA.

Response Time Performance Calculation: Response times are measured and calculated on a fractile basis using CAD data, where available.

Computer Aided Dispatch (CAD): A combination of hardware and software that provides data entry, makes resource recommendations, and notifies and tracks those resources before, during, and after emergency 911 calls, preserving records of those emergency 911 calls and status changes for later analysis

CAD to CAD: A dedicated electronic connection between two or more CAD systems that provides a reciprocal flow of specified data elements that can populate designated fields in each of the connected CAD systems.

Automatic Vehicle Locating (AVL): A Global Positioning System based tool used for determining the precise geographic location of a vehicle or other resource, and transmitting this information to dispatchers, supervisors and/or into a CAD or other tracking/recording system.

Automatic Vehicle Locating (AVL) Playback: A software program that uses historic AVL records from tracked vehicles to plot a path in a mapping environment showing the routes and speed that the vehicle traveled during a specific time.

Recognition Time: Time that an incident is recognized as a reportable emergency.

Date Incident Report: The date the call is received by the Public Service Answering Point or other designated entity.

Time Incident Reported- Primary PSAP: Time call is first received by the Primary Public Safety answering Point.

Time Dispatch Notified- Secondary PSAP: Time call is first received by the Secondary Public Safety answering Point.

Call in dispatch queue: The point in time where pre-dispatch questioning/EMD is completed, and the call is ready to be dispatched to a response unit.

Date Unit Notified: Date response unit is notified by EMS dispatch.

Time Unit Notified: Time response unit is notified by the EMS dispatch.

Time Unit Responding: Time that the response unit begins physical motion, i.e., wheels begin to turn.

Time Arrival at scene/Staging: Time EMS unit stops physical motion at scene or staging area, i.e., wheels stop turning.

Time Unit Left Scene: Time when the response unit begins physical motion from scene, i.e., when the wheels begin to turn.

Time Arrival at Destination: Time when patient arrives at destination or transfer point, i.e., wheels stop turning.

Time of Receipt of Patient at receiving Facility: Time when receiving facility or transfer agency accepts transfer and care of the patient.

Time back in Service- Not Available: Time response unit back in service and not available for response.

Time back in Service- Available: Time response unit back in service and available for response.

Time Unit Canceled Enroute: Time provider agency dispatch is notified that call is canceled.

Time Unit Upgraded Code 3: Time when provider agency dispatch is notified that response is upgraded to code 3 from Code 2.

Time Unit Downgraded Code 2: Time when provider agency dispatch is notified that response is downgraded to code 2 from Code 3.

ICEMA Response Time Submissions Guideline (8/30/2013) File Format:

BUCode
ResponseDate
MapBook
Response_Area
ServiceType
Unit_Number
Run_Number
ResponseTimecode
OperatingArea
OnsetDateTime
RecognitionTime
PrimaryPSAP
DispNtfScnd
Time_Call_Received
Time_Assigned
Time_Enroute
Time_At_Scene
ArrivePatient
Time_Depart_Scene
Time_Arrived_Destination
RecFac
BackInService
Time_Call_Cleared
Time_Call_Canceled
Time_Upgrade
Time_Downgrade
Exemption_Reason
Exemption_Note
Longitude
Latitude

ATTACHMENT A

ICEMA Exemption Criteria List

Performance Based Contracts/ MOUs

Effective 2022

To be used for flagging purposes- these are not automatic exemptions

THE EXEMPTION REQUEST MUST BE THE SOLE REASON FOR THE LATE RESPONSE

Exemption Code	Type	Definition	Minimum Supporting Information (All exemptions require reporting of point of origin of responding unit.)
13	**Incorrect Information**	Any significant change(s) in response location initiated by the caller or dispatch agency, which directly affects the ability of the unit to meet the response requirement.	Time of notification of location change and notifying agency. CAD, recording, Automatic Vehicle Location (AVL) if available.
14	**Mechanical Failure**	Unit unable to respond due to non-preventable mechanical failure.	Critical failure report.
16	**Off Road Incidents**	Extended response time area with no road access to patient involved in off road incident.	Latitude/ Longitude or Thomas Brother map grid, CAD, voice recording, AVL, if available.
17	**Hospital Bed Delay**	Delays of greater than 25 minutes that are the result of a prolonged drop-off of a previous transport (e.g., bed delay), outside the control of the provider. This time does not include time needed by provider to get ready to respond. Requires more than one unit be on bed delay at time of call and system level depletion due to bed delay must be at least 20%.	Name of facilities and number of units at each facility experiencing prolonged drop off. System level at time of call. Thomas Brother's map grid location of responding unit. Screen shot, CAD, voice recording, AVL, if available.
19	**Road Closure/ Construction**	Unavoidable delays caused by unscheduled road construction or closure. Only one (1) exemption can be requested for each construction/closure location/event unless no other route is available.	Name of road and nearest cross street. Latitude/ Longitude or Thomas Brother map grid, CAD, voice recording, AVL, if available.
20	**Second Unit or Subsequent**	More than one unit to the same location.	Incident number of first unit on-scene. CAD tape.
21	**Traffic**	Any significant, unscheduled, unanticipated delay caused by traffic where a sufficient alternate route was not available (e.g., auto accident on a freeway, major prolonged gridlock, train).	Name of road and nearest cross street. Latitude/ Longitude or Thomas Brother map grid, CAD, voice recording, AVL, if available.
24	**Weather**	Any unusual weather conditions (e.g., major flooding, dense fog, snow accumulation, icy conditions, etc.) in the area affecting transport, which could impair or create significant unsafe driving conditions.	Type of weather, name of road and nearest cross street. Latitude/ Longitude or Thomas Brother map grid, CAD, Voice recording, AVL, if available.
99	**Other**	Any other mitigating circumstances falling outside the list of exemptions that may impede the response of a unit. The reason must be explained in exemption report. This exemption is to be used only when the reason is outside of the control of the provider; accident (provider not at fault), disaster, MCI, upgraded, downgraded, etc.	Documentation sufficient to justify request. Latitude/ Longitude or Thomas Brother map grid, CAD, voice recording, AVL, if available.

Rural Wilderness EOAs Only

ATTACHMENT A

15	**Mutual Aid**	Rural/Wilderness Areas Only. Mutual aid provided to outside jurisdiction or mutual aid requested within jurisdiction of provider, if mutual aid exemptions are specifically referenced in Performance Based Contract (PBC) or MOU.	Incident number and unit number for units on other calls. CAD, voice recording, AVL, if available.
23	**Unavailable Ambulance**	Rural/ wilderness areas only. Delayed response time due to ambulance unavailability due to response to other 9-1-1 calls or having to respond from outside of the operating area due to patient transport.	Incident number and unit number for units on other calls. CAD, voice recording, AVL, if available.

SPECIAL EVENT AND MASS GATHERING EVENT

I. PURPOSE

To establish a policy and procedure for approval of special event providers within the ICEMA region.

II. DEFINITIONS

Special Event/Mass Gathering includes all types of planned public and private gatherings including carnivals, community celebrations, off-road vehicle races, outdoor festivals, sporting events, parades, fairs, animal races, religious festivals, revival meetings, electronic dance music (EDM), and similar public gatherings. Special Events/Mass Gatherings are categorized as follows:

1. Minor Event
   a. Class I – Anticipated attendance of less than or up to one thousand (1,000) persons per day such as a community celebration, religious festivals, revivals, meetings, and similar public gatherings.
   b. Class II – Intensive sporting events, such as off-road vehicle races or rodeos and music events with anticipated attendance of less than or up to five hundred (500) persons per day. Included in this class are any such events that are advertised by a means of social and/or mass media (i.e., radio, television, newspaper, Internet, phone trees, fliers, etc.) and when limiting attendees to five hundred (500) persons per day is available and is strictly enforced.

2. Major Event
   a. Class I – Anticipated attendance of over one thousand (1,000) persons per day.
   b. Class II –Intensive sporting events, such as off-road races or rodeos, etc., or music events with anticipated attendance of over five hundred (500) persons per day. Included in this class are any such events that are advertised by a means of social and/or mass media (i.e., radio, television, newspaper, Internet, phone trees, fliers, etc.) including where a means of limiting attendees is not available.

Medical Action Plan (MAP) is a plan for the delivery of medical care and services to the public, attendees, participants, staff, or others at, near, during or immediately before or after a special event/mass gathering. The MAP shall be consistent and compliant with all applicable ICEMA regulations, guidelines, policies, and protocols.

III. POLICY

- Only special event providers approved through ICEMA will be permitted to work special events throughout San Bernardino County.

- All providers working special events must be accredited and licensed through ICEMA.

- Special event providers must have all medical equipment and supplies certified by ICEMA.
  - Medical equipment and supplies must be equivalent to the level of service being provided (BLS and/or ALS).

- Providers must submit a medical action plan (MAP) that meets the minimum standards of care for the size and type of event, as defined in this policy, for review and approval by ICEMA.

- The MAP must include:
  - Clearly defined goals and objectives
  - Staff titles, roles, and responsibilities
  - Background specifics of event (encounter data of previous or similar events)
  - Flow chart/diagram of anticipated operational process
  - List of all event staff providing medical services and their specific license/certification including state and local affiliation(s)
  - Disaster and Multiple Casualty Planning to include Incident Command System (ICS) Incident Action Plan (IAP) guidelines and forms ICS 200, 202, 203, 204, 205, 206, (208 optional)
  - Plan for oversight including a Continuous Quality Improvement (CQI) plan
  - Number and type of anticipated injuries in which emergency medical care is expected or required
  - Proximity to and name of closest hospitals
  - Plans for provision of onsite medical care and access to EMS
  - Method of interface with EMS including number of ambulances on standby at the event
  - Documentation that ambulances on standby at the event are from an ICEMA-permitted special event provider and that ambulances meet ICEMA minimum equipment and staffing requirements for BLS or ALS ambulances, depending on level of service being provided, in the ICEMA region.
  - Plans to collect pertinent injury data, number of patients treated, and reporting process.
  - Provisions for patient care documentation and submission to ICEMA

NOTE: This policy does not replace any and is in addition to applicable federal, state, county or city requirements, applications, or permits necessary to conduct the special event.

IV. PROCEDURE

It is the responsibility of the organizer/promoter to submit a Special Events Provider application and MAP to ICEMA for approval. In preparing the MAP, event organizers must:

- Identify a liaison from the venue to provide information from the venue that will assist medical responders with gathering accurate patient information and treat a patient who transitioned from the venue to EMS care.

- Consult with local EMS first responder and medical transport entities during the planning phase to ensure information sharing prior to the event.

- Base any MAP on predictive crowd attendance, size, and other considerations such as the history of substance use (legal or illegal) at previous or similar events.

- Require event medical personnel to comply with existing statues and regulations concerning record keeping and/or reporting during all events.

- An independent on-site physician, PA or registered nurse may be required for supervision and observation of medical care provided by non-EMS event medical personnel.

- Application packet must be submitted at least ninety (90) days prior to the date of the event/gathering.
- ICEMA will review application within 30 days and either approved or returned to the organizer/promoter for additional information or changes.
- The organizer/promoter will return application within thirty (30) days of the event with any requested changes and/or additions.
- All special event providers must notify ICEMA 7 days prior to the event for final review.
- Submission of a full report to ICEMA indicating the number and types of patients encountered and patient care reports for all contacts for medical care within 30 days of the end of the event is required

NOTE: Final authority for approval of the MAP rests with the ICEMA EMS Administrator and/or Medical Director.

IV. FEES

It is the responsibility of the organizer/promoter to submit applicable fees to ICEMA at the time of application per Resolution of the Board of Supervisors

V. REFERENCES

Number	NAME
5020	Minimum requirements for transfer of patient care
5030	Requirements for patient care reports
6010	Physician on scene
6020	Responsibility for patient management
6080	Patient refusal of care-adult
8080R1	Medical response to a multi casualty incident

STANDARD DRUG AND EQUIPMENT LIST - BLS/LALS/ALS

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

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

MEDICATIONS/SOLUTIONS

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

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

AIRWAY/SUCTION EQUIPMENT

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

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

IV/NEEDLES/SYRINGES/MONITORING EQUIPMENT

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

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

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

OPTIONAL EQUIPMENT/MEDICATIONS

Non-Exchange Optional Equipment/ Medications	BLS	LALS	ALS Non-Transport	ALS Transport
AED/defib pads - Adult (1), Pediatric (1)	1 each	1 each		
Albuterol MDI with spacer		4 doses	4 doses	4 doses
Automatic CPR device (FDA approved)	1	1	1	1
Automatic transport ventilator (Specialty Program Only - ICEMA approved device)			1	1
Backboard padding	1	1	1	1
~~Buprenorphine-Naloxone (Suboxone) SL (for agencies participating in LOSOP)~~			~~48mg total~~	~~48mg total~~
Buretrol			1	1
Chemistry profile tubes			3	3
Epinephrine 0.15 mg Auto-Injector	2	2		
Epinephrine 0.3 mg Auto-Injector	2	2		
Nerve Agent Antidote Kit (NAAK) - DuoDote or Mark I	3	3	3	3
EMS Tourniquet	1		1	1
Gum Elastic intubation stylet			2	2
Hemostatic Dressings *	1	1	1	1
IO Needles - Manual, Adult and Pediatric, Optional		Pediatric sizes only IO needles and drivers	1 each	1 each
IV infusion pump			1	1
IV warming device		1	1	1
Manual IV Flow Rate Control Device			1	1
Manual powered suction device	1	1	1	1
Multi-lumen peripheral catheter			2	2
Needle Thoracostomy Kit (prepackaged)			2	2
Naloxone (Narcan) Nasal Spray 4 mg	2	2	2	2
Pulse Oximetry device	1			
Sodium Bicarbonate 50 mEq / 50cc Vial			2	2

Non-Exchange Optional Equipment/ Medications	BLS	LALS	ALS Non-Transport	ALS Transport
Translaryngeal Jet Ventilation Device			1	1
Vacutainer			1	1

* Hemostatic Dressings

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

NOTE:

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

DRESSING MATERIALS/OTHER EQUIPMENT/SUPPLIES

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

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

INTERFACILITY TRANSFER GUIDELINES

I. PURPOSE

To identify patient care responsibilities for emergency medical technicians (EMTs), advanced EMTs (AEMTs) and paramedics (EMT-Ps) during interfacility transports.

II. BLS INTERVENTIONS

During an interfacility transport, an EMT may monitor the following if the patient is non-critical and deemed stable by the transferring physician and the physician has approved transport via BLS ambulance:

Appropriate transfer paperwork and medical records must accompany the patient to their destination.

- Monitor a saline lock or peripheral lines delivering fluids in any combination/concentration of Normal Saline, Lactated Ringers or Dextrose and Water provided the following conditions are met:
  - No medications have been added to the IV fluid.
  - Maintain the IV at a pre-set rate.
  - Check tubing for kinks and reposition arm if necessary.
  - Turn off IV fluid if signs/symptoms of infiltration occur.
  - Control any bleeding at insertion site.
- Transport a patient with a urinary catheter provided the following:
  - The catheter is able to drain freely.
  - No action is taken to impede flow or contents of drainage collection bag.
- Transport a patient with a nasogastric or gastrostomy tube provided the tube is clamped.
- If the patient's condition deteriorates, the patient should be transported to the closest receiving hospital.

III. LIMITED ALS (LALS) INTERVENTIONS

During an interfacility transport, if the patient is non-critical and deemed stable by the transferring physician and the physician has approved transport via LALS ambulance, an AEMT may monitor or perform the following:

- Peripheral lines delivering fluids in any combination/concentration of normal saline, lactated ringers or dextrose and water.
- Saline locks.
- Tracheo-bronchial suction of an intubated patient.

- Initiate prior to contact protocols if the patient's condition deteriorates, then must contact the base hospital per ICEMA Reference #3040 - Radio Communication.

Appropriate transfer paperwork and medical records must accompany the patient to their destination.

AEMTs may not transport a patient with IV drips that are not in the AEMT scope of practice.

AEMTs may not transport patients with blood or blood products.

IV. ALS INTERVENTIONS

Appropriate transfer paperwork and medical records must accompany the patient to their destination.

If the transfer is a STEMI patient, refer to ICEMA Reference #8020 - Specialty Care Transport.

EMT-Ps may not transport a patient with IV drips that are not in the EMT-P scope of practice.

EMT-Ps may not transport patients with blood or blood products.

During an interfacility transport, an ICEMA accredited EMT-P may:

- Monitor peripheral lines delivering fluids in any combination/concentration of normal saline, lactated ringers or dextrose and water.
- Transport intravenous solutions with added medication(s) as follows:
  - Lidocaine
  - Dopamine
  - Magnesium Sulfate
- Monitor and administer medications through a pre-existing vascular access.
- Monitor ~~heparin lock~~ or saline lock.
- Monitor IV solutions containing potassium ≤40mEq/L.
- Monitor thoracostomy tubes to water or dry sealed drainage.
- Monitor nasogastric tubes.

EMT-Ps may initiate prior to contact protocols if the patient's condition deteriorates, then must contact the base hospital per ICEMA Reference #5040- Radio Communication Policy.

- If EMT-P~~paramedic~~ personnel are requested for the transfer, the transferring physician shall submit written orders designating treatment during transport that are within ICEMA protocols. ~~designating the precise level of care deemed necessary during the transport.~~
- Any change in the patient's status that may require a deviation from the transferring physician's orders or jeopardize the continued safe transport of the patient to the receiving facility, the EMT-P shall ~~necessitate~~ contact~~ing~~ the transferring physician

(primarily) or base station hospital (secondarily), transferring physician may then be consulted by base hospital personnel to facilitate care by transport personnel.

V. NURSE ASSISTED ALS TRANSPORT

In the event of a critical patient that needs transport with medication or IV drips that are outside of the EMT-P scope of practice and CCT transport is not possible, a Registered Nurse (RN) from the transferring hospital may accompany the patient. The RN will be responsible for orders from the transferring physician. In the event the patient condition deteriorates, the EMT-P will contact the base hospital for orders and destination change. The RN will continue to provide care consistent with the transferring physician's orders. The base hospital physician may consider discontinuing or continuing the prior orders based on patient condition. The RN will document the base hospital physician orders on the transferring facility's patient care record. The EMT-P will document on the ePCR or O1A.

VI. REFERENCES

Number	Name
3040	Radio Communication
8020	Specialty Care Transport

OPIOID WITHDRAWAL

I. FIELD ASSESSMENT/TREATMENT INDICATORS

- Patient exhibiting signs/symptoms of possible opioid withdrawal characterized by tachycardia, gastrointestinal distress, hot and cold flashes, poor concentration, diaphoresis, rhinorrhea, restlessness, piloerection, and/or yawning.

II. EXCLUSION CRITERIA

- Under 16 years of age
- Any methadone use within the last 10 days
- Altered mental status and unable to give consent
- Severe medical illness (sepsis, respiratory distress, etc.)
- Recent benzodiazepine, alcohol, or intoxicants suspected within 24 hours
- Unable to comprehend potential risks and benefits for any reason
- Not a candidate for buprenorphine maintenance treatment for any reason

III. BLS INTERVENTIONS

- Oxygen therapy as clinically indicated.
- If patient exhibiting signs/symptoms of possible altered level of consciousness refer to ICEMA Reference #14060-Altered Level of Consciousness/Seizure-Adult
- Assess and document response to therapy.

IV. LIMITED ALS (LALS) INTERVENTIONS

- Perform activities identified in the BLS interventions.
- Obtain vascular access.

V. ALS INTERVENTIONS

Note: Administration of Buprenorphine-Naloxone (Suboxone) is authorized for transport providers and approved non-transport providers.

- Perform activities identified in the BLS and LALS interventions.
- Place on cardiac monitor and obtain a 12-lead ECG as clinical indicated.
- Use Clinical Opioid Withdrawal Scale (COWS ≥8) assessment tool to determine if patient meets criteria for treatment.
- Provide counseling and assess patient interest in buprenorphine-naloxone (Suboxone®).

- Administer buprenorphine-naloxone (Suboxone®) per ICEMA Reference #11010 – Medication – Standard Orders. (16 mg/ 4mg buprenorphine-naloxone SL).
- Reassess patient after 10 minutes.
- If symptoms worsen or persist, administer second dose buprenorphine-naloxone (Suboxone®) per ICEMA Reference #11010 – Medication – Standard Orders (8mg/2mg buprenorphine-naloxone (Suboxone®) SL to max dose 24 mg/ 6mg).
- Transport to a California Bridge Hospital and inform patient that the hospital navigator will initiate contact within 72 hours to offer additional treatment.
- If patient declines transport, provide MAT information, coaching, and brochure.
- Provide Leave Behind Naloxone kit and education if available.

V. REFERENCES

Number	Name
11010	Medication - Standard Order
14060	Altered Level of Consciousness/Seizures-Adult

MEDICATION - STANDARD ORDERS

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

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

Acetaminophen (Tylenol) - Adult (ALS)

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

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

Acetaminophen (Tylenol) – Pediatric (ALS)

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

2 years to 14 years:

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

Reference #s 7010, 7020, 14100

Adenosine (Adenocard) - Adult (ALS)

Stable narrow-complex SVT or Wide complex tachycardia:
Adenosine, 6 mg rapid IVP followed immediately by 20 cc NS bolus, and Adenosine, 12 mg rapid IVP followed immediately by 20 cc NS bolus if patient does not convert. May repeat one (1) time.

Reference #s 7010, 7020, 14040

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

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

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

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

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

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

Albuterol (Proventil) - Pediatric (LALS, ALS)

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

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

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

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

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

Aspirin, chewable -Adult (LALS, ALS)

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

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

Atropine (ALS) - Adult

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

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

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

Atropine - Pediatric (ALS)

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

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

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

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

Reference #s 7010, 10050

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

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

Reference #s 5010, 7010, 7020, 13010

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

Reference #s 7010, 7020, 14050

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

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

Reference #s 5010, 7010, 7020, 14030

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

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

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

Seizures:

Diazepam , 5 mg IV/IO
Diazepam 10mg IM

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

Seizures:

Diazepam 0.1mg/kg IV/IO max 5mg
Diazepam 0.2mg/kg IM max 10mg

Reference #s 7010, 7020, 14170

Diphenhydramine - Adult (ALS)

Diphenhydramine, 25 mg IV/IO

Diphenhydramine, 50 mg IM

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

Diphenhydramine - Pediatric (ALS)

Allergic reaction:

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

Diphenhydramine, 2 mg/kg IM not to exceed adult dose of 50 mg IM.

Reference #s 7010, 7020, 14140

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

Severe Bronchospasm, Asthma Attack, Pending Respiratory Failure, Severe Allergic Reactions:

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

Reference # 14010

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

For persistent severe anaphylactic reaction:

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

Reference # 14010

Cardiac Arrest, Asystole, PEA:

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

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

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

For severe asthma and/or anaphylaxis only

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

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

For anaphylaxis only

Epinephrine 0.3 mg auto-injector

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

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

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

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

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

Severe Bronchospasm, Asthma Attack, Pending Respiratory Failure, Severe Allergic Reactions:

Epinephrine, 0.01 mg/kg IM not to exceed adult dosage of 0.3 mg. May repeat after 15 minutes one (1) time if symptoms do not improve.

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

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

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

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

Cardiac Arrest:

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

Newborn Care:

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

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

Reference # 14200

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

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

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

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

Fentanyl - Adult (ALS)

Chest Pain (Presumed Ischemic Origin):

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

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

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

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

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

Pacing, synchronized cardioversion:

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

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

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

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

Fentanyl - Pediatric (ALS)

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

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

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

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

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

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

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

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

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

Reference #s 7010, 7020, 14170, 14160

Glucagon - Adult (LALS, ALS)

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

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

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

Glucagon - Pediatric (LALS, ALS)

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

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

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

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

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

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

Reference #s 7010, 7020, 14010, 14070

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

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

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

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

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

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

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

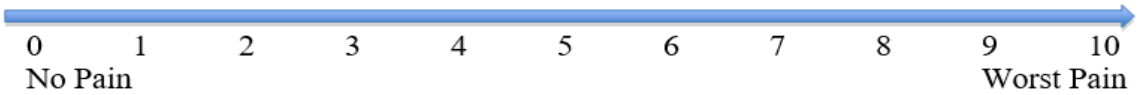
When used in combination with Albuterol MDI use Albuterol MDI dosing.

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

Ketamine - Adult (ALS)

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

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



Reference #s 7010, 7020, 14100

Lidocaine - Adult (ALS)

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

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

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

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

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

Lidocaine - Pediatric (ALS)

Cardiac Arrest:

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

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

Reference #s 5010, 7010, 7020, 14150

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

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

Reference #s 5010, 7010, 7020, 11020

Magnesium Sulfate-Adult (ALS)

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

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

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

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

*Severe Asthma/Respiratory Distress (ALS) **(base hospital order only)**:*
Magnesium Sulfate, 2 gm slow IV drip over 20 minutes. Do not repeat.
Reference# 14010

Magnesium Sulfate - Pediatric (ALS)

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

Reference # 14120

Midazolam (Versed) - Adult (ALS)

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

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

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

Reference # 14110

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

Midazolam 5 mg IM/IN

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

Repeat dose requires base hospital contact.

Reference # 14050

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

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

Assess patient for medication related reduced respiratory rate or hypotension.

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

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

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

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

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

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

Midazolam (Versed) - Pediatric (ALS)

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

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

Assess patient for medication related reduced respiratory rate or hypotension.

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

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

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

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

Assess patient for medication related reduced respiratory rate or hypotension.

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

Reference #s 7010, 7020, 14170, 14110

Naloxone (Narcan) - Adult (BLS)

For resolution of respiratory depression related to suspected opiate overdose:

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

For suspected Fentanyl overdose with respiratory depression:

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

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

Reference #s 7010, 7020, 8030, 14060

Naloxone (Narcan) - Adult (LALS, ALS)

For resolution of respiratory depression related to suspected opiate overdose:

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

For suspected Fentanyl overdose with respiratory depression:

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

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

Reference #s 4080, 7010, 7020, 14060

Naloxone (Narcan) - Pediatric (BLS)

For resolution of respiratory depression related to suspected opiate overdose:

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

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

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

Naloxone (Narcan) - Pediatric (LALS, ALS)

For resolution of respiratory depression related to suspected opiate overdose:

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

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

Reference #s 7010, 7020, 14150, 14160

Nitroglycerin (NTG) -Adult (LALS, ALS)

Nitroglycerin, 0.4 mg sublingual/transmucosal.

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

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

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

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

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

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

Nausea/Vomiting:

Ondansetron, 4 mg slow IV/IO/ODT

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

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

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

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

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

General Administration (Hypoxia):

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

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

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

Sodium Bicarbonate - Adult (ALS)

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

Reference #s 5010, 7010, 7020, 13010

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

Reference #'s 7010, 7020, 14050

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 11010, 13010, 13040

Diazepam (Valium) - Adult (ALS)

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

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

Reference # 13040

Diazepam (Valium) - Pediatric (ALS)

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

Diazepam 0.05 mg/kg IV

Reference # 13040

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

Nerve agent exposure with associated symptoms:

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

Reference #s 7010, 7020, 13010, 13040

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
- Capnography is required for continuous monitoring of patients given medications that may cause respiratory depression.
- 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 #11010 - 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.

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)

- As a temporary method for chest decompression in the management of suspected tension pneumothorax.
  - **Clinical Indications:**
    - Patients with hypotension (SBP less than 90), clinical signs of shock, and at least one of the following signs:
      - Jugular vein distention.
      - Tracheal deviation away from the side of the injury (often a late sign).
      - Absent or decreased breath sounds on the affected side.
      - Increased resistance when ventilating a patient.
- The midaxillary line at the 5th intercostal space is the preferred site.
- Consider bilateral needle thoracostomy if no improvement or in traumatic cardiac arrest.

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 ~~—~~Pediatric and Adult ~~Adult~~ (EMT-P)

- Supraglottic airway is permitted only as a **Backup** airway in patients who have failed attempts with BLS airway and oral endotracheal intubation.~~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 #14090 - 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 #11010 - Medication - Standard Orders.

- For pain, consider Fentanyl per ICEMA Reference #11010 - 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 #11010 - Medication - Standard Orders.
- For pain, consider Fentanyl per ICEMA Reference #11010 - 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 #14040 - Tachycardias - Adult.

PATIENT CARE GUIDELINES

I. PURPOSE

To establish guidelines for the minimum standard of care and transport of patients.

II. BLS INTERVENTIONS

- Obtain a thorough assessment of the following:
  - Airway, breathing and circulatory status.
  - Subjective assessment of the patient's physical condition and environment.
  - Objective assessment of the patient's physical condition and environment.
  - Vital signs (blood pressure, pulse, respiration, GCS, skin signs, etc.).
  - Prior medical history and current medications.
  - Any known medication allergies or adverse reactions to medications, food or environmental agents.
- Initiate care using the following tools as clinically indicated or available:
  - Spinal motion restriction.
  - Airway control with appropriate BLS airway adjunct.
  - Oxygen as clinically indicated.
  - Assist the patient into a physical position that achieves the best medical benefit and maximum comfort.
  - Automated External Defibrillator (AED).
  - Administer Naloxone by intranasal and/or intramuscular routes.
  - Blood glucose monitoring.
  - Consider the benefits of early transport and/or intercept with ALS personnel if clinically indicated.
- Assemble necessary equipment for ALS procedures or treatment under direction of EMT-P.
  - Cardiac monitoring.
  - IV/IO.
  - Endotracheal intubation.
- Under EMT-P supervision, assemble pre-load medications as directed (excluding controlled substances).

III. LIMITED ALS (LALS) INTERVENTIONS

- Evaluation and continuation of all initiated BLS care.
- Augment BLS assessment with an advanced assessment including, but not limited to the following:
  - Qualitative lung assessment.
  - Blood glucose monitoring.
- Augment BLS treatment measures with LALS treatments as indicated by LALS protocols.
- Initiate airway control as needed with the appropriate LALS adjunct.
- Initiate vascular access as clinically indicated.

IV. ALS INTERVENTIONS

- Evaluation and continuation of all initiated BLS and/or LALS care when indicated by patient's condition.
- Augment BLS and/or LALS assessment with clinically indicated advanced assessments including but not limited to the following:
  - Cardiac monitor and/or 12-lead ECG.
  - Capnography.
  - Blood glucose monitoring.
- Augment BLS and/or LALS treatment with advanced treatments as clinically indicated.
  - Initiate airway control when clinically indicated using an appropriate airway adjunct to achieve adequate oxygenation and ventilation.
  - Initiate fluid resuscitation when clinically indicated.~~Initiate airway control only when clinically indicated for the appropriate administration of medications and/or fluids~~.
- Review and evaluate treatments initiated by BLS, LALS, or ALS personnel.
  - Consider discontinuing treatments not warranted by patient's clinical condition. Intermittent monitoring may be used instead of continuous monitoring when clinically indicated.

TRAUMA - ADULT (15 years of age and older)

I. FIELD ASSESSMENT/TREATMENT INDICATORS

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

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

II. BLS INTERVENTIONS

- Ensure thorough initial assessment.
- Ensure patent airway, protecting cervical spine.
- Obtain oxygen saturation (if BLS equipped).
- Administer oxygen and/or ventilate as needed.
- Keep patient warm.
- For a traumatic full arrest, provide CPR, utilize the AED if indicated and transport to the closest most appropriate hospital.
- Mechanical cardiopulmonary resuscitation (mCPR) devices are contraindicated for trauma patients
- Transport to ALS intercept or to the closest receiving hospital.

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

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

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

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

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

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

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

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

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

- **Bleeding**:

  - Apply direct pressure and/or pressure dressing.

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

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

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

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

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

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

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

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

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

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

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

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

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

III. LIMITED ALS (LALS) INTERVENTIONS

- Perform identified BLS interventions and additional LALS interventions.

- Advanced airway (as indicated).

  - Unmanageable Airway: Transport to the closest most appropriate receiving hospital when the patient requires advanced airway and an adequate airway cannot be maintained with a BVM device.

- Establish IV access.

  - *Unstable*: If BP less than 90 mm Hg and/or signs of inadequate perfusion, start 2nd IV access.

  - *Stable*: Maintain IV if BP more than 90 mm Hg and/or signs of adequate tissue perfusion.

Blunt Trauma:

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

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

Penetrating Trauma:

- Saline lock only, do not administer IV fluids.

Isolated Closed Head Injury:

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

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

Isolated Extremity Trauma:

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

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

- Transport to appropriate hospital.

A. ~~**A.**~~ **Manage Special Considerations**

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

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

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

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

B. **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" per ICEMA Reference #14250 - Determination of Death on Scene, contact the Trauma base hospital for determination of death on scene for those patients who suffer a traumatic cardiac arrest in the setting of penetrating trauma and no reported vital signs (palpable pulse and/or spontaneous respirations) during the EMS encounter with the patient.

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

- **Precautions and Comments**:

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

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

- If the patient is not responsive to trauma-oriented resuscitation, consider medical etiology and treat accordingly.
- Unsafe scene may warrant transport despite low potential for survival.

IV. ALS INTERVENTIONS

- Perform identified BLS and LALS intervention and the additional ALS interventions.
- Advanced Airway (as indicated):
  - Unmanageable Airway: If an adequate airway cannot be maintained with a BVM device; **and** the paramedic is unable to intubate or insert SGA or perform a successful needle cricothyrotomy (if indicated), **then** transport to the closest receiving hospital and follow ICEMA Reference #9010 - Continuation of Care (San Bernardino County Only).
- Monitor ECG.
- Establish IV/IO access.
  - *Unstable*: If BP less than 90 mm Hg and/or signs of inadequate perfusion, start 2nd IV access.
  - *Stable*: Maintain IV/IO if BP more than 90 mm Hg and/or signs of adequate tissue perfusion.

Blunt Trauma:

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

Penetrating Trauma:

- Saline lock only, do not administer IV fluids.

Isolated Closed Head Injury:

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

Isolated Extremity Trauma:

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

- Tranexamic Acid (TXA) administration for blunt or penetrating traumas:

- Must be within three (3) hours of injury and must have either:
  - Signs and symptoms of hemorrhagic shock with SBP less than 90 mm Hg.
  - Significant hemorrhage with heart rate greater than or equal to 120.
  - Bleeding not controlled by direct pressure or tourniquet.
  - Pediatric administration is not indicated.
- **Blunt Trauma**:
  - For signs of hemorrhagic shock meeting inclusion criteria above, administer TXA per ICEMA Reference #11010 - Medication - Standard Orders.
- **Penetrating Trauma**:
  - For signs of hemorrhagic shock meeting inclusion criteria above, administer TXA per ICEMA Reference #11010 - Medication - Standard Orders.

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

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

- As a temporary method for chest decompression, in the management of suspected tension pneumothorax, perform needle thoracostomy.
  - ***Clinical Indications:***
    - *Patients with hypotension (SBP less than 90), clinical signs of shock, and at least one of the following signs:*
    - *Jugular vein distention.*
    - *Tracheal deviation away from the side of the injury (often a late sign).*
    - *Absent or decreased breath sounds on the affected side.*
    - *Increased resistance when ventilating a patient*
- The midaxillary line at the 5th intercostal space is the preferred site.
  .
- Consider bilateral needle thoracostomy if no improvement or in traumatic cardiac arrest.

- **Pain Relief for Acute Traumatic Injuries**:
  - Administer an appropriate analgesic per ICEMA Reference #14100 - Pain Management. Document vital signs and pain scales every five (5) minutes until arrival at destination
  - Consider Ondansetron per ICEMA Reference #11010 - Medication - Standard Orders.

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

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

V. REFERENCES

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

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.

- **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

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

- **Spinal Motion Restriction** : LALS personnel should remove LBB devices from patients placed in full spinal motion restriction precautions by first responders and BLS personnel if the patient does not meet any of the following indicators 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, insert SGA or perform a successful needle cricothyrotomy (if indicated), **then** transport to the closest receiving hospital and follow ICEMA Reference #9010 - Continuation of Care.

- 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

- As a temporary method for chest decompression, in the management of suspected tension pneumothorax, perform needle thoracostomy.
  - ***Clinical Indications:***
    - *Patients with hypotension (SBP less than 90), clinical signs of shock, and at least one of the following signs:*
      - *Jugular vein distention.*
      - *Tracheal deviation away from the side of the injury (often a late sign).*
      - *Absent or decreased breath sounds on the affected side.*
      - *Increased resistance when ventilating a patient*
- The midaxillary line at the 5th intercostal space is the preferred site.
- Consider bilateral needle thoracostomy if no improvement or in traumatic cardiac arrest.
- **Fractures**
  - **Pain Relief**:
    - 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.
- **Pain Relief for Acute Traumatic Injuries**:
  - Administer an appropriate analgesic per ICEMA Reference #14100 - Pain Management. Document vital signs and pain scales every five (5) minutes until arrival at destination.
  - Consider Ondansetron per ICEMA Reference #11010 - Medication - Standard Orders
- **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
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
14100	Pain Management

SEPSIS

I. PURPOSE: To facilitate rapid identification and treatment of patients with suspected sepsis.

II. FIELD ASSESSMENT/TREATMENT INDICATORS

For possible infection and two or more of the following:

- Temperature > 100.4 F or < 96.8 F
- Sustained HR >90
- EtCO2 < 25 mmHg
- Sustained Respiratory rate >20

III. BLS INTERVENTIONS

- Oxygen therapy as clinically indicated.
- Position patient as tolerated and cover to avoid shivering. If altered, place in left lateral position.
- Obtain and assess blood glucose level. If indicated, administer Glucose - Oral per ICEMA Reference #11010 Medication - Standard Orders.

IV. LIMITED ALS INTERVENTIONS

- Perform activities identified in the BLS Interventions
- Obtain vascular access.
- Administer 500 ml IV bolus, may repeat one (1) time.
- If hypoglycemic;
  - Dextrose per ICEMA Reference #11010 - Medication - Standard Orders, **or**
  - If unable to establish IV, Glucagon may be given one (1) time per ICEMA Reference #11010 - Medication - Standard Orders.
- If hyperglycemic;
  - Administer 500 ml IV bolus may repeat one (1) time.

V. ALS INTERVENTIONS

- Perform activities identified in the BLS and LALS Interventions.
- Place on cardiac monitor and obtain a 12-lead ECG as clinically indicated.
- Monitor EtCO2

For profound hypotension, unresponsive to fluid boluses, administer Push Dose Epinephrine per ICEMA Reference #11010 - Medication - Standard Orders

VI. SPECIAL CONSIDERATIONS

- Risk Factors:
  - Indwelling catheters (foley, PICC line etc.)
  - Recent surgery
  - Open wounds
  - Bedridden or immobile patients
  - Compromised Immune system due to comorbidities (cancer, autoimmune disease, etc.)
- Prioritize early recognition, IV fluids and rapid hospital notification and transport.
- If signs of pulmonary edema, stop or limit fluid boluses.
- Hypotension is a late indicator for septic shock.

VII. REFERENCES

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