Inland Counties Emergency Medical Agency

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

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

DATE: March 09, 2023

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

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

SUBJECT: **IMPLEMENTATION OF POLICIES/PROTOCOLS EFFECTIVE APRIL 1, 2023**

The policies/protocols/listed below are effective April 1, 2023. Please note all Revision (R) numbers will be removed when the Annual Policy Manual update occurs.

ICEMA Reference Number and Name

1040R2	MICN Authorization - Base Hospital, Administrative, Flight Nurse, Critical Care Transport
6110	Transport of Critical 911 Patients When no Ambulance is Available
7010R5	Standard Drug and Equipment List - BLS/LALS/ALS
7020R3	Standard Drug and Equipment List - EMS Aircraft
8050	Requests for Ambulance Redirection and Hospital Diversion
8100	Ambulance Patient Offload Delay (APOD)
9040	Trauma Triage Criteria
11010R5	Medication - Standard Orders
11020R4	Procedure - Standard Orders
14100R1	Pain Management

Please insert and replace the attached policies/protocols and the Table of Contents in the Policy and Protocol Manual with the updated documents. The ICEMA policies and protocols can also be found on ICEMA's website at www.ICEMA.net under the Policy and Protocol Manual section.

If you have any questions related to documents in the manual, please contact Michelle Hatfield, EMS Specialist, (909) 388-5826 or via e-mail at Michelle.Hatfield@cao.sbcounty.gov.

RV/MH/LG

Enclosures

c: File Copy

BOARD OF SUPERVISORS
Col. Paul Cook (Ret.), Vice Chairman, First District
Jesse Armendarez, Second District
Dawn Rowe, Chair, Third District
Curt Hagman, Fourth District
Joe Baca, Jr., Fifth District
Leonard X. Hernandez, Chief Executive Officer

POLICIES/PROTOCOLS CHANGES EFFECTIVE APRIL 1, 2023

Reference #	Name	Changes
DELETIONS		
NEW		
CHANGES		
1040R2	MICN Authorization – Base Hospital, Administrative, Flight Nurse, Critical Care Transport	MICN testing, field care audits, and ride out requirements were added to the policy.
6110	Transport of Critical 911 Patients When No Ambulance is Available	Language regarding San Bernardino County only was removed.
7010R5	Standard Drug and Equipment List - BLS/LALS/ALS	Albuterol MDI, and epinephrine auto injectors were moved from special programed to the optional equipment list.
7020R3	Standard Drug and Equipment List - EMS Aircraft	Sodium Bicarbonate 50 ml single dose vial added to medications/solutions.
8050	Requests for Ambulance Redirection and Hospital Diversion	Policy was renamed and ambulance redirection was added to the hospital diversion policy.
8100	Ambulance Patient Offload Delay (APOD)	The policy was streamlined to align with the Emergency Directive language.
9040	Trauma Triage Criteria	Additional considerations added to the triage criteria regarding non accidental trauma and pediatric car seats.
11010R5	Medication – Standard Orders	Added an age rage for the administration of pediatric IV acetaminophen.
11020R4	Procedure – Standard Orders	The capnography requirement when administering pain medication was updated.
14100R1	Pain Management	Removed the requirement for base contact to change route of administration.

TABLE OF CONTENTS

SERIES	ADMINISTRATIVE POLICIES
1000	**CREDENTIALING (EMT, AEMT, EMT-P, MICN)**
1010	AEMT Certification
1020	EMT Certification
1030	EMT-P Accreditation
1040	MICN Authorization - Base Hospital, Administrative, Flight Nurse, Critical Care Transport
1050	RCP Authorization
1060	EMT/AEMT Incident Investigation, Determination of Action, Notification, and Administrative Hearing Process
1070	Criminal History Background Checks (Live Scan)
1080	EMT-P Student Field Internship Requirements
2000	**EDUCATION**
2010	Continuing Education Provider Requirements
2020	EMT Continuing Education Requirements
2030	Public Safety First Aid Training Program Approval
2040	Public Safety Optional Skills Course Approval
2050	Tactical Casualty Care Training Programs and Courses
3000	**GENERAL POLICIES**
3010	Licensure Changes - 911 Receiving Hospitals
3020	Base Hospital Designation
3030	Adoption of Policies and Protocols
3040	Radio Communication
3050	Controlled Substance
3060	Ground Based Ambulance Rate Setting (San Bernardino County)
4000	**SPECIALTY CARE PROGRAMS AND SPECIALTY SERVICE PROVIDER POLICIES**
4010	Paramedic Vaccination
4020	ChemPack Deployment
4030	Specialty and Optional Scope Program Approval
4040	ST Elevation Myocardial Infarction Critical Care System Designation
4050	EMT-P Blood Draw for Chemical Testing at the Request of a Peace Officer
4060	Fireline EMT-P
4070	Stroke Critical Care System Designation
4080	Tactical Medicine for Special Operations
4090	Emergency Medical Dispatch Center Requirements (San Bernardino County Only)
4100	Medical Priority Dispatch Minimum Response Assignments for Emergency Medical Dispatch (EMD) Categories
4110	Trauma Critical Care System Designation

TABLE OF CONTENTS

SERIES	EMS SYSTEM POLICIES
5000	**DATA COLLECTION**
5010	ICEMA Abbreviation List
5020	Minimum Documentation Requirements for Transfer of Patient Care
5030	Requirements for Patient Care Reports
5040	Requirements for Collection and Submission of EMS Data
6000	**GENERAL OPERATIONAL POLICIES**
6010	Physician on Scene
6020	Responsibility for Patient Management
6030	Reporting Incidents of Suspected Abuse
6040	Organ Donor Information
6050	Local Medical Emergency
6060	Patient Restraints
6070	Care of Minors in the Field
6080	Patient Refusal of Care - Adult
6090	Treatment and Transportation Recommendations of Patients with Emerging Infectious Diseases
6100	EMS Fellow Field Response
6110	Transport of Critical 911 Patients When No Ambulance is Available
7000	**DRUG AND EQUIPMENT LISTS**
7010	Standard Drug and Equipment List - BLS/LALS/ALS
7020	Standard Drug and Equipment List - EMS Aircraft
8000	**RESPONSE, TRANSPORT, TRANSFER AND DIVERSION POLICIES**
8010	Interfacility Transfer Guidelines
8020	Specialty Care Transport
8030	Transport of Patients (BLS)
8050	Requests for Hospital Diversion and Ambulance Redirection
8060	Hospital Emergency Response Team (HERT)
8070	Medical Response to Hazardous Materials/Terrorism Incident
8080	Medical Response to a Multiple Casualty Incident
8090	Medical Response to a Multiple Casualty Incident (Inyo and Mono Counties)
8100	Ambulance Patient Offload Delay (APOD)
8110	EMS Aircraft Utilization (San Bernardino County Only)
8130	Assess and Refer Response Plan (San Bernardino County Only)
9000	**CONTINUATION OF CARE AND DESTINATION POLICIES**
9010	Continuation of Care
9020	Continuation of Trauma Care (Fort Irwin)
9030	Destination
9040	Trauma Triage Criteria
10000	**PILOT PROJECTS AND TRIAL STUDIES**
10010	Emergency Medical Transport of Police Dogs - Pilot Project (San Bernardino County Only)
10020	Trial Study Participation
10030	Leave Behind Naloxone Distribution - Pilot Project
10040	Paramedic Prehospital Utilization of Ultrasound - Trial Study

TABLE OF CONTENTS

SERIES	PATIENT CARE PROTOCOLS
11000	**STANDARD ORDERS**
11010	Medication - Standard Orders
11020	Procedure - Standard Orders
12000	**GENERAL PATIENT CARE**
12010	Patient Care Guidelines
12020	Glasgow Coma Scale
13000	**ENVIRONMENTAL EMERGENCIES**
13010	Poisonings
13020	Heat Related Emergencies
13030	Cold Related Emergencies
13040	Nerve Agent Antidote Kit (Training, Storage and Administration)
13050	Smoke Inhalation/CO Exposure/Suspected Cyanide Toxicity
13060	Drowning/Submersion Injuries
14000	**TREATMENT PROTOCOLS**
14010	Respiratory Emergencies - Adult
14020	Airway Obstruction – Adult
14030	Bradycardias – Adult
14040	Tachycardias – Adult
14050	Cardiac Arrest – Adult
14060	Altered Level of Consciousness/Seizures - Adult
14070	Burns - Adult (15 years of age and older)
14080	Stroke Treatment - Adult
14090	Trauma - Adult (15 years of age and older)
14100	Pain Management - Adult
14110	Psychiatric/Behavioral Emergencies - Adult
14120	Respiratory Emergencies - Pediatric (Less than 15 years of age)
14130	Airway Obstruction - Pediatric (Less than 15 years of age)
14140	Allergic Reactions - Pediatric (Less than 15 years of age)
14150	Cardiac Arrest - Pediatric (Less than 15 years of age)
14160	Altered Level of Consciousness - Pediatric (Less than 15 years of age)
14170	Seizure - Pediatric (Less than 15 years of age)
14180	Trauma - Pediatric (Less than 15 years of age)
14190	Burns - Pediatric (Less than 15 years of age)
14200	Newborn Care
14210	Obstetrical Emergencies
14220	Nausea and Vomiting
14230	Shock (Non-Traumatic)
14240	Suspected Acute Myocardial Infarction (AMI)
14250	Determination of Death on Scene
14260	End of Care and Decisions
14270	Ventricular Assist Device (VAD)

TABLE OF CONTENTS

15000	PUBLIC SAFETY FIRST AID
15010	Allergic Reaction and Anaphylaxis (Authorized Public Safety Personnel)
15020	Nerve Agent Exposure (Authorized Public Safety Personnel)
15030	Opioid Overdose (Authorized Public Safety Personnel)
15040	Respiratory Distress (Authorized Public Safety Personnel)
15050	Optional Skills and Medications (Authorized Public Safety Personnel)
15060	Public Safety AED Service Provider

SERIES	APPENDIX
16000	**MISCELLANEOUS**
16010	Definitions

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

I. PURPOSE

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

II. POLICY

- All RNs working in a capacity that will require them to provide Advanced Life Support (ALS) services or to issue ICEMA protocol directed instructions to emergency medical services (EMS) field personnel within the ICEMA region shall submit a completed application and meet criteria established by the ICEMA Medical Director.
- All MICNs shall notify ICEMA of any and all changes in name, email and/or mailing address within 30 calendar days of change. This notification/change may be made through the ICEMA EMS Credentialing portal found on the ICEMA website at ICEMA.net.
- All MICNs shall notify ICEMA immediately of termination of their employment with an approved entity and/or employment by another ICEMA approved base hospital and/or non-base hospital employer. If employment with an approved EMS provider is terminated, the MICN authorization will be rescinded unless proof of other qualifying employment is received by ICEMA within 30 days.
- MICNs may hold authorization in multiple categories but must apply and submit all required documentation. MICN authorization may be added to or converted to another MICN category by meeting all requirements for authorization in that category.

III. PROCEDURE

General Procedures for MICN Authorization/Reauthorization

- Submit a completed online application using the ICEMA EMS Credentialing portal found on the ICEMA website at ICEMA.net for each MICN category applied for that includes:
  - Copy of a valid government issued photo identification.
  - Copy of a valid California RN license.
  - Proof of completion of an ICEMA approved MICN course with a passing score of at least 80 percent (80%). (MICN-BH Initial Authorization Only).
  - Proof of completion of ICEMA approved EMT-P protocol test (Initial Authorization Only).
  - Proof of completion of Skills training, attend 4 field care audits and participate in 2 ride-outs every two years.
  - Copy of a valid American Heart Association BLS Healthcare Provider, American Red Cross BLS Healthcare Provider card or equivalent. Online course is acceptable with written documentation of skills portion.

- Copy of a valid American Heart Association Advanced Cardiac Life Support (ACLS) card or Red Cross Advanced Cardiac Life Support (ACLS) card ACLS cards that are obtained online must have hands on skills evaluation with an approved American Heart Association instructor.

- Submit the established ICEMA fee. Additional categories may be applied for without additional fee. Authorization cards issued within six (6) months of nursing license expiration is exempt from reauthorization fee. Fees paid for authorization are not refundable or transferable. ICEMA fees are published on the ICEMA website at ICEMA.net.

MICN-BH Authorization by Challenge

- Meet one (1) of the following eligibility requirements:

  - MICN in another county if approved by the ICEMA Medical Director.

  - An eligible RN who has been a MICN in ICEMA region who has let authorization lapse longer than six (6) months.

  The MICN that is challenging authorization will be required to complete the required skills training, ride outs, field care audits, and take the ICEMA written exam with a passing score of 80 percent (80%), unless waived by the ICEMA Medical Director,

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

TRANSPORT OF CRITICAL 911 PATIENTS WHEN NO AMBULANCE IS AVAILABLE

I. PURPOSE

To establish standards for the transportation of critical 911 patients in the rare event that traditional modes of transportation are unavailable. In an emergency situation, when failure to take other action would likely result in harm or negative patient outcome, field personnel may utilize the most appropriate method of transportation available.

II. POLICY

- In the event that there are no available ambulances to meet the response needs within the Inland Counties operational areas.
- EMS field personnel may utilize the most medically appropriate method of transportation at their disposal, if:
  - The on-scene crew has a critical patient where no ALS ambulance, assistance by hire ALS ambulance, or BLS ambulance is available, has no ETA, or an extended ETA.
- All patients transported in these circumstances must have 100% CQI.
- Providers transporting patients utilizing alternative transportation modes and methods must notify the ICEMA Duty Officer within 24 hours of the 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 100 mg			3	3
Lidocaine 2% Intravenous solution			1	1
Magnesium Sulfate 10 gm			1	1
Naloxone (Narcan) 2 mg preload	2	2	2	2
Nitroglycerine (NTG) - Spray 0.4 mg metered dose and/or tablets (tablets to be discarded 90 days after opening)		2	1	2
Nitroglycerine Paste 2% - 1 gm packets, **or** Nitroglycerine Paste 2% - 30 gm tube, **or** Nitroglycerine Paste 2% - 60 gm tube				2 1 1
Normal Saline for Injection (10 cc)		2	2	2
Normal Saline 100 cc			1	2
Normal Saline 250 cc			1	1
Normal Saline 500 ml and/or 1000 ml		2000 ml	3000 ml	6000 ml
Ondansetron (Zofran) 4 mg Oral Disintegrating Tablets (ODT)			4	4
Ondansetron (Zofran) 4 mg IM/IV			4	4
Sodium Bicarbonate 50 mEq preload			2	2
Tranexamic Acid (TXA) 1 gm			2	2

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

AIRWAY/SUCTION EQUIPMENT

Exchanged Airway/Suction Equipment	**BLS**	**LALS**	**ALS Non-Transport**	**ALS Transport**
CPAP circuits - all manufacture's available sizes			1 each	2 each
End-tidal CO2 device - Pediatric and Adult (may be integrated into bag)			1 each	1 each
Endotracheal Tubes cuffed - 6.0 and/or 6.5, 7.0 and/or 7.5 and 8.0 and/or 8.5 with stylet			2 each	2 each
ET Tube holders - adult		1 each	1 each	2 each
i-gel - Size 3, 4, and 5			2 each	2 each
Mask - Adult & Pediatric non-rebreather oxygen mask	2 each	2 each	2 each	2 each
Mask - Infant Simple Mask	1	1	1	1
Nasal cannulas - pediatric and adult	2 each	2 each	2 each	2 each
Naso/Orogastric feeding tubes - 5fr or 6fr, and 8fr			1 each	1 each
Naso/Orogastric tubes - 10fr or 12fr, 14fr, 16fr or 18fr			1 each	1 each
Nasopharyngeal Airways - (infant, child, and adult)	1 each	1 each	1 each	1 each
Needle Cricothyrotomy Device - Pediatric and adult or Needles for procedure 10, 12, 14 and/or 16 gauge			1 each 2 each	1 each 2 each
14 gauge 3.25 inch and 18 gauge 1.75-2 inch 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
EZ-IO Driver			1 each	1 each
EZ-IO Needles: 25 mm 45 mm			 2 each 1 each	 2 each 1 each
Glucose monitoring device with compatible strips and OSHA approved single use lancets	1	1	1	1
3-way stopcock with extension tubing			2	2
IV Catheters - sizes 14, 16, 18, 20, 22, 24		2 each	2 each	2 each
Macrodrip Administration Set Microdrip Administration Set (60 drops / cc)		3 1	3 1	3 2
Mucosal Atomizer Device (MAD) for nasal administration of medication	2	2	2	4
Pressure Infusion Bag (disposable)		1	1	1
Razors		1	2	2
Safety Needles - 20 or 21gauge and 23 or 25 gauge		2 each	2 each	2 each
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,			2 each	2 each

Exchanged IV/Needles/Syringes/Monitor Equipment	BLS	LALS	ALS Non-Transport	ALS Transport
10 cc, 20 cc, 60 cc catheter tip				

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
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 or EZ-IO needles and drivers	1 each	1 each
IV infusion pump			1	1
IV warming device		1	1	1
Manual IV Flow Rate Control Device			1	1
Manual powered suction device	1	1	1	1
Multi-lumen peripheral catheter			2	2
Needle Thoracostomy Kit (prepackaged)			2	2
Naloxone (Narcan) Nasal Spray 4 mg	2	2	2	2
Pulse Oximetry device	1			
Sodium Bicarbonate 50 mEq / 50cc Vial			2	2
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

STANDARD DRUG AND EQUIPMENT LIST - EMS AIRCRAFT

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

MEDICATIONS/SOLUTIONS	AMOUNT
Acetaminophen (Tylenol) 1 gm IV	1
Adenosine (Adenocard) 6 mg	1
Adenosine (Adenocard) 12 mg	2
Albuterol Aerosolized Solution (Proventil) - unit dose 2.5 mg	3 doses
Aspirin, chewable - 81 mg tablet	1 bottle
Atropine 1 mg preload	2
Calcium Chloride 1 gm preload	1
Dextrose 10% in 250 ml Water (D10W) *	2
Diphenhydramine (Benadryl) 50 mg	1
Epinephrine 1 mg/ml 1 mg	2
Epinephrine 0.1 mg/ml 1mg preload	3
Glucagon 1 mg	1
Glucopaste	1 tube
Ipratropium Bromide Inhalation Solution (Atrovent) unit dose 0.5 mg	3
Lidocaine 100 mg	3
Lidocaine 2% Intravenous solution	1
Magnesium Sulfate 10 gms	1
Naloxone (Narcan) 2 mg preload	2
Nitroglycerin (NTG) - Spray 0.4 mg metered dose and/or tablets (tablets to be discarded 90 days after opening.)	1
Normal Saline for Injection (10 cc)	2
Normal Saline 250 ml	1
Normal Saline 500 ml and/or 1000 ml	2000 ml
Ondansetron (Zofran) 4 mg Oral Disintegrating Tablets (ODT)	4
Ondansetron (Zofran) 4 mg IM/ IV	4
Sodium Bicarbonate 50 mEq (50 ml preload or 50 ml single-dose vial)	2
Tranexamic Acid (TXA) 1 gm	2

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

AIRWAY/SUCTION EQUIPMENT	AMOUNT
Aircraft Oxygen source -10 L /min for 20 minutes	1
C-PAP circuits - all manufacture's available sizes	1 each
End-tidal CO2 device - pediatric and adult (may be integrated into bag)	1 each
Endotracheal Tubes cuffed - 6.0 and/or 6.5, 7.0 and/or 7.5 and 8.0 and/or 8.5 with stylet	2 each
ET Tube holders - adult	1 each
Flashlight/penlight	1
Laryngoscope handle with batteries - or 2 disposable handles	1
Laryngoscope blades - #0, #1, #2, #3, #4 curved and/or straight	1 each
Magill Forceps - Pediatric and Adult	1 each
Nasal Cannulas - infant, pediatric and adult	2 each

AIRWAY/SUCTION EQUIPMENT	**AMOUNT**
Naso/Orogastric tubes - 10fr or 12fr, 14fr, 16fr or 18fr	1 each
Naso/Orogastric feeding tubes - 5fr or 6fr, and 8fr	1 each
Nasopharyngeal Airways - infant, child, and adult	1 each
Needle Cricothyrotomy Device (Approved) - Pediatric and adult *or* Needles for procedure 10, 12, 14 and/or16 gauge	1 each 2 each
Non Re-Breather O_2 Mask - Pediatric and Adult, Infant Simple Mask	2 each
14 gauge 3.25 inch and 18 gauge 1.75-2 inch needles for Needle Thoracostomy	2 each
Oropharyngeal Airways - infant, child, and adult	1 each
Portable Oxygen with regulator - 10 L /min for 20 minutes	1
Portable suction device (battery operated) *and/or* Wall mount suction device	1 each
Pulse Oximetry device	1
Small volume nebulizer with universal cuff adaptor	1
Stethoscope	1
Suction catheters - 6fr, 8fr or 10fr, 12fr or 14fr	1 each
Ventilation Bags - Infant 250 ml, Pediatric 500 ml and Adult 1 L	1 each
Water soluble lubricating jelly	1
Ridged tonsil tip suction	1

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

DRESSING MATERIALS/OTHER EQUIPMENT SUPPLIES	**AMOUNT**
Adhesive tape - 1 inch	2
Air occlusive dressing	1
Aircraft stretcher or litter system with approved FAA straps that allows for Axial Spinal Immobilization	1
Ankle and wrist restraints, soft ties acceptable	1
Antiseptic swabs/wipes	
Bandage shears	1

DRESSING MATERIALS/OTHER EQUIPMENT SUPPLIES	AMOUNT
Blanket or sheet	2
Blood Borne Pathogen Protective Equipment - (nonporous gloves, goggles face masks and gowns meeting OSHA Standards)	2
Cervical Collars - Rigid Pediatric & Adult all sizes *or* Cervical Collars - Adjustable Adult and Pediatric	1 each 1 each
Emesis basin or disposable bags and covered waste container	1
Head immobilization device	1
OB Kit	1
Pediatric Emergency Measuring Tape (Broselow, etc.)	1
Pneumatic or rigid splints capable of splinting all extremities	4
Provodine/Iodine swabs/wipes or antiseptic equivalent	
Roller bandages - 4 inch	3
Sterile bandage compress or equivalent	6
Sterile gauze pads - 4x4 inch	4
Sterile Sheet for Burns	2
Traction splint	1
Universal Dressing 10x30 inches	2

OPTIONAL EQUIPMENT/MEDICATIONS	Amount
Automatic ventilator (Approved)	1
Backboard padding	1
BLS AED/defib pads	1
Chemistry profile tubes	3
Nerve Agent Antidote Kit (NAAK) - DuoDote or Mark I	3
D5W in bag	1
Hemostatic Dressing *	1
IV infusion pump	1
IV warming device	1
Manual powered suction device	1
Medical Tourniquet	1
Naloxone (Narcan) Nasal Spray 4 mg	2
Needle Thoracostomy Kit (prepackaged)	2
Pediatric immobilization board	1
Translaryngeal Jet Ventilation Device	1
Vacutainer	1

* Hemostatic Dressings

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

NOTE:

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

REQUESTS FOR HOSPITAL DIVERSION AND AMBULANCE REDIRECTION

I. PURPOSE

To define policy and procedures for hospitals to request diversion of Advanced Life Support (ALS) ambulances and to define procedures for the redirection of ALS ambulances by the transport providers.

II. POLICY

- Hospital diversion is driven by the hospital and may only be used if the hospital meets the criteria that is listed in this policy.

- Ambulance redirection is driven by the EMS providers and may only be used if the criteria listed in this policy is met.

III. DIVERSION

- Ambulance diversion based on hospital capacity, census or staffing is not permitted in the ICEMA region. Limited diversion for hospital internal disaster and trauma Centers are permitted as outlined in this policy.

- This policy applies to the 9-1-1 emergency system as a temporary measure and is not intended for utilization to determine destination for interfacility transports, including higher level of care transports.

- If a hospital meets internal disaster criteria, Trauma Center Diversion or any other specialty care centers with unique circumstances, immediate telephone notification must be made to the ICEMA Duty Officer by an administrative staff member who has the authority to determine that criteria has been met for diversion.

- Hospitals must notify EMS dispatch centers immediately via ReddiNet or available communication modalities.

- Hospitals must maintain a hospital diversion policy that conforms with this policy. The hospital policy shall include plans to educate all appropriate staff on proper utilization of diversion.

- Within 72 hours of an incident, the hospital must provide ICEMA with a written after-action report indicating the reasons for internal disaster, plans activated, adverse patient consequences and the corrective actions taken. The report must be signed by the CEO or designated responsible individual.

- ICEMA staff may contact the hospital to determine the reasons for ambulance diversion, under this policy.

- ICEMA may remove any hospital from diversion status using ReddiNet if it is determined that the request is not consistent with this policy.

IV. REDIRECT

- Receiving hospitals cannot redirect an incoming ambulance and limited diversion is only permitted for internal disaster or trauma centers as outlined in this policy.

- ICEMA may randomly audit records to ensure redirected ambulance patients are transported to the appropriate destination.

- ICEMA may perform unannounced site visits to hospitals on temporary redirection status to ensure compliance.

V. PROCEDURE FOR DIVERSION

A request for diversion of ALS ambulances may be made by contacting the ICEMA Duty Officer, for the following approved categories:

- CT Diversion (for Non-Specialty Care Centers).

  - When Non-Specialty Care Centers experience CT scanner failure, the hospital can go on ambulance diversion using the ReddiNet system for EMS patients who may require CT imaging.

- Trauma Center Diversion (for use by designated Trauma Centers only)

  - The on-duty trauma surgeon must be involved in the decisions regarding any request for trauma diversion.

  - The trauma team and trauma surgeon (both first and second call) are fully committed to the care of trauma patients in the operating room and are NOT immediately available for any additional incoming patients meeting approved trauma triage criteria.

  - All operating rooms are occupied with critically injured patients that meet trauma triage criteria.

  - All CT Scanners are inoperable due to scanner failure at a designated Trauma Center.

  - Internal disaster.

  NOTE: Diversion is canceled when all designated Trauma Centers are on Trauma Center Diversion.

- **Internal Disaster Diversion**

  - Requests for Internal Disaster Diversion shall apply only to physical plant breakdown affecting the Emergency Department or significant patient services.

    NOTE: Examples of Internal Disaster Diversion include bomb threats, explosions, power outage and a nonfunctional generator, fire, earthquake damage, hazardous materials exposure, incidents involving the safety and/or security of a facility.

  - Internal Disaster Diversion shall not be used for hospital capacity or staffing issues.

  - Internal Disaster Diversion will stop all 9-1-1 transports into the facility.

- The hospital CEO or AOD shall be notified and notification documented in ReddiNet.
- If the hospital is a designated base hospital, the hospital should consider immediate transfer of responsibility for on-line direction to another base hospital. Notification must be made to the EMS provider.
- The affected hospital shall enter Internal Disaster Diversion status into ReddiNet and notify the ICEMA Duty Officer immediately.

  NOTE: Some hospitals have an internal policy called internal disaster to facilitate staff movement or other surge measures. This is not the same as internal disaster referred to in this policy and should not be put out on ReddiNet.

- **Exceptions to CT and Trauma Diversion Only**:
  - Basic life support (BLS) ambulances shall not be diverted.
  - Ambulances on hospital property shall not be diverted.
  - With the exception of Internal Disaster Diversion involving significant plant failure, patients exhibiting unmanageable problems (i.e., difficult to manage airway, uncontrolled hemorrhage, cardiopulmonary arrest) in the field, shall be transported to the closest emergency department.

VI. PROCEDURE FOR AMBULANCE REDIRECTION (ACTIVE REDIRECT)

- Active Redirect will only be initiated at the recommendation of an ambulance supervisor, fire department Battalion Chief or above, or the ICEMA Duty Officer.
- Active Redirect can be initiated when three (3) or more ambulances are held on bed delay for more than 25 minutes.
- Supervisory personnel should be on scene whenever possible to work with the hospital to offload patients.
- Every effort should be made to clear ambulances on bed delay.
- Once the determination has been made to place the hospital on Active Redirect, the supervisor will ensure that notification is made via ReddiNet.
- Hospitals on Active Redirect will remain in that status for a maximum of two (2) hours. If conditions resolve prior to the two (2) hour time limit, the hospital shall be taken off Active Redirect.
- The paramedic has the ability to override the redirect status based on patient request and for continuity of care. (i.e. cancer patients, heart patients, transplant patients or hospital insurance).
- Any patient needing Specialty Care Services will be transported to the closest most appropriate hospital regardless of redirect status.

- Any Critical patient will be transported to the closest most appropriate hospital regardless of redirect status.

AMBULANCE PATIENT OFFLOAD DELAY (APOD)

I. PURPOSE

To establish policy for the safe and rapid transfer of patient care responsibilities between Emergency Medical Services (EMS) personnel and emergency department (ED) medical personnel.

II. CONSIDERATIONS

Delays in the transfer of patient care and offloading of patients adversely affects patient care,

III. DIRECTION OF EMS FIELD PERSONNEL

EMS field personnel must continue to provide and document patient care in accordance with ICEMA treatment policies and protocols prior to the transfer of patient care to the designated receiving hospital.

IV. PATIENT CARE RESPONSIBILITY

The responsibility for patient care belongs to the designated receiving hospital once the patient arrives on hospital grounds.

V. TRANSFER OF PATIENT CARE

Patients Under Care of EMS Field Personnel

. Transfer of patient care is completed once the ED medical staff has received a verbal patient report. If the transfer of care and patient offloading from the ambulance gurney exceeds 25 minutes , it will be documented and tracked as APOD.

EMS field personnel are responsible for immediately returning to response ready status once patient care has been transferred to ED medical personnel and the patient has been offloaded from the ambulance gurney.

VI. APOD MITIGATION PROCEDURES

ED medical personnel should consider the following to prevent APOD:

- Immediately acknowledge the arrival of each patient transported by EMS;
- Receive a verbal patient report from EMS field personnel; and
- Transfer patient to the hospital gurney, bed, chair, wheelchair or waiting room as appropriate for patient condition within 25 minutes of arrival at the hospital ED.

If APOD does occur, the hospital should make every attempt to:

- Provide a safe area in the ED for the EMS personnel to temporarily wait while the hospital's patient remains on the ambulance gurney.
- Inform the attending paramedic or EMT of the anticipated time for the offload of the patient.

- Provide information to the supervisor of the EMS field personnel regarding the steps that are being taken by the hospital to resolve APOD.

Hospitals will provide written details to ICEMA and EMS providers of policies and procedures that have been implemented to mitigate APOD including:

- Processes for internal escalation of APOD:
  - ➢ ED/Attending Physician
  - ➢ ED Nurse Manager/Director or Designee (i.e., Charge Nurse)
  - ➢ House Supervisor
  - ➢ Administrator on call
- Processes to alert via ReddiNet
  - ➢ Local receiving hospitals/base hospitals
  - ➢ Fire department and ambulance dispatch centers
- Processes for EMS field providers to alert the ED medical personnel of a decline in the patient's condition.
- EMS field personnel are directed to do the following to prevent APOD:
- Work cooperatively with the receiving hospital staff to transition patient care within the timeframes established in this policy.

VII. CLINICAL PRACTICES FOR EMS FIELD PERSONNEL TO REDUCE APOD

The EMS field personnel shall utilize sound clinical judgment and follow the appropriate ICEMA policies and treatment protocols including:

- Initiate care as clinically indicated with the appropriate basic life support (BLS) and advanced life support (ALS) interventions.
- Initiate vascular access only as clinically indicated.
- Discontinue ECG monitoring before removing the patient from the ambulance if there are no clinical indications for cardiac monitoring.

VIII. APOD UNUSUAL EVENTS

In response to a major emergency that requires immediate availability of ambulances the San Bernardino County Medical Health Operational Area Coordinator may give direction to EMS field providers to immediately transfer patient care to the ED medical personnel and return to service to support the EMS system resource needs.

- If offload delay exceeds 25 minutes, EMS field personnel will transfer care of the patient to ED medical personnel and transition patient to a gurney cot bed chair wheelchair or waiting room that is appropriate for patients' condition.
- Transfer of care will include BLS and ALS patients that are determined to be stable and safe to transfer, based on EMS field personnel evaluation.

EMS field personnel are required to give a verbal patient report containing any pertinent information necessary for the ongoing care of the patient. EMS field personnel will complete and post the written ePCR in accordance with existing policy.

TRAUMA TRIAGE CRITERIA

I. PURPOSE

To establish Trauma Triage Criteria that is consistent with the American College of Surgeons standards that will help identify trauma patients in the field, and based upon their injuries, direct their transport to an appropriate Trauma Center.

II. POLICY

A. Trauma Triage Criteria

Measure vitals and Level of Consciousness (LOC).

A patient shall be transported to the closest Trauma Center if any one (1) physiologic criteria is present following a traumatic event. Trauma base hospital contact shall be made.

1. **Physiologic Indicators:**

   - **Glasgow Coma Scale (GCS)/**
     - Adult and Pediatric
       - GCS less than or equal to 13
   - **Respiratory**
     - Adult and Pediatric
       - RR less than 10 or more than 29
       - (RR less than 20 for infant less than 1 year old) or need for ventilatory support
   - **Hypotension**
     - Adult
       - BP less than 90 mm Hg
       - tachycardia
     - Pediatric
       - exhibits inadequate tissue perfusion
       - abnormal vital signs (according to age)

2. **Anatomic Indicators:**

   - **Penetrating injuries to head, neck, torso and extremities proximal to the knee or elbow**
   - **Blunt chest trauma resulting in chest wall instability or deformity (e.g., flail chest or ecchymosis)**
   - **Two (2) or more proximal long bone fractures (femur, humerus)**

- **Crushed, degloved, mangled or pulseless extremity**
- **Amputation proximal to the wrist or ankle**
- **Pelvic fractures**
- **Open or depressed skull fracture**
- **Paralysis**

A patient shall be transported to the closest Trauma Center if any one (1) anatomic criteria is present following a traumatic event. Trauma base hospital contact shall be made.

If physiologic or anatomic criteria is not met, assess mechanism of injury and evidence of high-energy impact.

3. **Mechanism of Injury**:

- **Falls**
  - Adults: more than 20 feet (one story is equal to 10 feet)
  - Pediatric: more than 10 feet or two (2) to three (3) times the child's height
- **High-risk auto crash**
  - Intrusion, including roof: more than 12 inches occupant site
  - Ejection (partial or complete) from automobile
  - Death in the same passenger compartment
  - Vehicle telemetry data consistent with a high-risk injury
  - Child (0-9) unrestrained or in unsecured child safety seat
- **Auto versus pedestrian/bicyclist thrown, run over, or with significant (more than 20 mph) impact**
- **Motorcycle crash more than 20 mph**

If a patient has one or more of the following mechanisms of injury **with** any of the above physiologic or anatomic criteria transport to the closest TC.

If there are no associated physiologic or anatomic criteria meets one or more of the following mechanisms of injury, contact a Trauma base hospital for physician consultation to determine the patient destination. In some cases, a Trauma base hospital may direct a patient a non-trauma receiving hospital.

4. **Age and Co-Morbid Factors**:

Assess special patient or system considerations.

If the patient does not meet any of the above criteria, make Level I or Level II Trauma base hospital contact to determine the appropriate destination: for the following patients:

- **Older adults more than 65 years of age**
    - Risk of Injury/death increases after age 65.
    - Patient on anticoagulants and or bleeding disorders.
    - SBP less than 110 might represent shock after age 65.
    - Low impact mechanism (e.g., ground level falls might result in severe injury.
- **Children**
    - Pediatric patients (14 years and younger).
    - Suspicion of child abuse.
    - Triage children preferentially to pediatric capable Trauma Centers.
    - Pediatric patients 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 closest Trauma Center.
- **Burns**
    - Without other trauma mechanism triage to closest receiving hospital or burn center.
    - With trauma mechanism, triage to Trauma Center. Make Trauma base hospital contact.
- **Pregnancy more than 20 weeks**
- **EMS Provider Judgement**

B. <u>Radio Contact</u>

- If not contacted at scene, the receiving Trauma base hospital must be notified as soon as possible in order to activate the trauma team.
- If the closest receiving Trauma Center is located outside the ICEMA region, and no orders or consult is needed, contact the Trauma Center that will be receiving the patient directly.
- Contact Trauma base hospital if a patient meets Trauma Triage Criteria but is refusing transport to a Trauma Center.
- In Inyo and Mono Counties, the assigned base hospital should be contacted for consultation and destination.

C. **Hospital Trauma Diversion Status**

Refer to ICEMA Reference #8050 - Request for Ambulance Redirection and Hospital Diversion (San Bernardino County Only).

D. **Multiple Casualty Incident (MCI)**

Refer to ICEMA Reference #8080 - Medical Response to a Multiple Casualty Incident.

III. REFERENCES

Number	**Name**
8050	Request for Ambulance Redirection and Hospital Diversion (San Bernardino County Only)
8080	Medical Response to a Multiple Casualty Incident
9010	Continuation of Care (San Bernardino County Only)
14250	Determination of Death on Scene

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 (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 (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 (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

Calcium Chloride - Adult (ALS)

*Calcium Channel Blocker Poisonings **(base hospital order only)**:*

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

Reference #s 5010, 7010, 7020, 13010

*For cardiac arrest with suspected hypocalcemia, hyperkalemia, hypermagnesemia or calcium channel blocker poisoning **(base hospital order only)**:*

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

Reference #s 7010, 7020, 14050

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

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

Reference #s 5010, 7010, 7020, 14030

Calcium Chloride - Pediatric (ALS)

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

Reference #s 7010, 7020, 13010

Dextrose - Adult (LALS, ALS)

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

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

Dextrose - Pediatric (LALS, ALS)

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

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

Diphenhydramine - Adult (ALS)

Diphenhydramine, 25 mg IV/IO

Diphenhydramine, 50 mg IM

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

Diphenhydramine - Pediatric (ALS)

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

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

Reference #s 7010, 7020, 14140

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

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

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

Reference #s 4060, 4080, 5010, 7010, 7020, 11010, 14050, 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.

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

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

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

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

Cardiac Arrest:

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

Newborn Care:

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

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

Reference # 14200

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

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

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

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

Fentanyl - Adult (ALS)

Chest Pain (Presumed Ischemic Origin):

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

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

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

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

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

Pacing, synchronized cardioversion:

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

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

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)

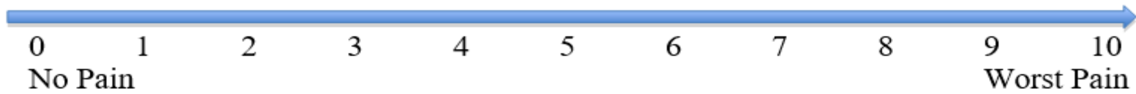
When used in combination with Albuterol MDI use Albuterol MDI dosing.

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 (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.

Reference #s 7010, 7020, 14170

Naloxone (Narcan) - Adult (BLS)

For resolution of respiratory depression related to suspected opiate overdose:

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

For suspected Fentanyl overdose with respiratory depression:

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

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

Reference #s 7010, 7020, 8030, 14060

Naloxone (Narcan) - Adult (LALS, ALS)

For resolution of respiratory depression related to suspected opiate overdose:

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

For suspected Fentanyl overdose with respiratory depression:

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

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

Reference #s 4080, 7010, 7020, 14060

Naloxone (Narcan) - Pediatric (BLS)

For resolution of respiratory depression related to suspected opiate overdose:

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

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

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

Naloxone (Narcan) - Pediatric (LALS, ALS)

For resolution of respiratory depression related to suspected opiate overdose:

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

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

Reference #s 7010, 7020, 14150, 14160

Nitroglycerin (NTG) (LALS, ALS)

Nitroglycerin, 0.4 mg sublingual/transmucosal.

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

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

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

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

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

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

Nausea/Vomiting:

Ondansetron, 4 mg slow IV/IO/ODT

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

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

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

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

Oxygen (non-intubated patient per appropriate delivery device)

General Administration (Hypoxia):

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

Chronic Obstructive Pulmonary Disease (COPD):

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

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

Sodium Bicarbonate - Adult (ALS)

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

Sodium Bicarbonate, 1 mEq/kg IV/IO

Reference #s 5010, 7010, 7020, 13010

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

Sodium Bicarbonate, 50 mEq IV/IO/ 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

PAIN MANAGEMENT

I. PURPOSE

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

II. FIELD ASSESSMENT/TREATMENT INDICATORS

The prehospital use of analgesics should be considered for the following:

- Acute traumatic injuries
- Acute abdominal/flank pain
- Burn injuries
- Cancer pain
- Sickle Cell Crisis
  - The inability to recall a specific traumatic incident does not necessarily preclude the administration of pain medication.

III. BLS INTERVENTIONS

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

IV. ALS INTERVENTIONS

- Perform activities identified in the BLS Interventions.
- Consider early vascular access.
- Place on cardiac monitor. Obtain capnography, monitoring waveform and numerical value as clinically indicated.
- Monitor and assess patient vital signs prior to administration of any analgesic.
- For treatment of pain as needed with a blood pressure of greater than 100 systolic:
  - Fentanyl per ICEMA Reference # 11010 - Medication - Standard Orders (adult or pediatric patients), for moderate to severe pain 6-10 on pain scale **or**

- Ketamine per ICEMA Reference # 11010 - Medication - Standard Orders (Adult Only- 15 Years of Age and Older), for moderate to severe pain 6-10 on pain scale **or**

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

- For treatment of pain as needed with a blood pressure less than 100 systolic:

  - Ketamine per ICEMA Reference # 11010 - Medication - Standard Orders, (Adult Only- 15 Years of Age and Older) for moderate to severe pain 6-10 on pain scale **or**

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

- Continuous monitoring of patients ECG and capnography is required for administration of Ketamine or fentanyl.

- Reassess and document vital signs, capnography, and pain scores every five (5) minutes.

V. SPECIAL CONSIDERATIONS

- Shifting from one analgesic while treating a patient requires base hospital contact.

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

VI. REFERENCES

Number	Name
11010	Medication - Standard Orders
11020	Procedure- Standard Order
14240	Suspected Acute Myocardial Infarction (AMI)
14070	Burns- Adult
14090	Trauma- Adult
14190	Burns-Pediatric
14180	Trauma-Pediatric
13030	Cold Related Emergencies

TABLE OF CONTENTS

SERIES	ADMINISTRATIVE POLICIES
1000	**CREDENTIALING (EMT, AEMT, EMT-P, MICN)**
1010~~R1~~	AEMT Certification
1020~~R1~~	EMT Certification
1030~~R1~~	EMT-P Accreditation
1040~~R2~~	MICN Authorization - Base Hospital, Administrative, Flight Nurse, Critical Care Transport
1050~~R1~~	RCP Authorization
1060	EMT/AEMT Incident Investigation, Determination of Action, Notification, and Administrative Hearing Process
1070	Criminal History Background Checks (Live Scan)
1080~~R1~~	EMT-P Student Field Internship Requirements
2000	**EDUCATION**
2010	Continuing Education Provider Requirements
2020	EMT Continuing Education Requirements
2030	Public Safety First Aid Training Program Approval
2040	Public Safety Optional Skills Course Approval
2050	Tactical Casualty Care Training Programs and Courses
3000	**GENERAL POLICIES**
3010	Licensure Changes - 911 Receiving Hospitals
3020~~R1~~	Base Hospital Designation
3030	Adoption of Policies and Protocols
3040~~R1~~	Radio Communication
3050	Controlled Substance
3060	Ground Based Ambulance Rate Setting (San Bernardino County)
4000	**SPECIALTY CARE PROGRAMS AND SPECIALTY SERVICE PROVIDER POLICIES**
4010	Paramedic Vaccination
4020	ChemPack Deployment
4030	Specialty and Optional Scope Program Approval
4040~~R1~~	ST Elevation Myocardial Infarction Critical Care System Designation
4050~~R1~~	EMT-P Blood Draw for Chemical Testing at the Request of a Peace Officer
4060~~R2~~	Fireline EMT-P
4070~~R2~~	Stroke Critical Care System Designation
4080~~R1~~	Tactical Medicine for Special Operations
4090	Emergency Medical Dispatch Center Requirements (San Bernardino County Only)
4100	Medical Priority Dispatch Minimum Response Assignments for Emergency Medical Dispatch (EMD) Categories
4110	Trauma Critical Care System Designation

TABLE OF CONTENTS

SERIES	EMS SYSTEM POLICIES
5000	**DATA COLLECTION**
5010	ICEMA Abbreviation List
5020	Minimum Documentation Requirements for Transfer of Patient Care
5030	Requirements for Patient Care Reports
5040	Requirements for Collection and Submission of EMS Data
6000	**GENERAL OPERATIONAL POLICIES**
6010	Physician on Scene
6020~~R1~~	Responsibility for Patient Management
6030	Reporting Incidents of Suspected Abuse
6040	Organ Donor Information
6050	Local Medical Emergency
6060	Patient Restraints
6070	Care of Minors in the Field
6080	Patient Refusal of Care - Adult
6090~~R1~~	Treatment and Transportation Recommendations of Patients with Emerging Infectious Diseases
6100	EMS Fellow Field Response
6110	Transport of Critical 911 Patients When No Ambulance is Available
7000	**DRUG AND EQUIPMENT LISTS**
7010~~R5~~	Standard Drug and Equipment List - BLS/LALS/ALS
7020~~R3~~	Standard Drug and Equipment List - EMS Aircraft
8000	**RESPONSE, TRANSPORT, TRANSFER AND DIVERSION POLICIES**
8010	Interfacility Transfer Guidelines
8020	Specialty Care Transport
8030	Transport of Patients (BLS)
8050~~R1~~	Requests for Hospital Diversion and Ambulance Redirection ~~and Hospital Diversion~~
8060	Hospital Emergency Response Team (HERT)
8070~~R1~~	Medical Response to Hazardous Materials/Terrorism Incident
8080~~R1~~	Medical Response to a Multiple Casualty Incident
8090~~R1~~	Medical Response to a Multiple Casualty Incident (Inyo and Mono Counties)
8100	Ambulance Patient Offload Delay (APOD)
8110	EMS Aircraft Utilization (San Bernardino County Only)
8130~~R3~~	Assess and Refer Response Plan (San Bernardino County Only)
9000	**CONTINUATION OF CARE AND DESTINATION POLICIES**
9010~~R1~~	Continuation of Care
9020~~R1~~	Continuation of Trauma Care (Fort Irwin)
9030	Destination
9040~~R1~~	Trauma Triage Criteria
10000	**PILOT PROJECTS AND TRIAL STUDIES**
10010	Emergency Medical Transport of Police Dogs - Pilot Project (San Bernardino County Only)
10020	Trial Study Participation
10030	Leave Behind Naloxone Distribution - Pilot Project
10040	Paramedic Prehospital Utilization of Ultrasound - Trial Study

TABLE OF CONTENTS

SERIES	PATIENT CARE PROTOCOLS
11000	**STANDARD ORDERS**
11010~~R5~~	Medication - Standard Orders
11020~~R4~~	Procedure - Standard Orders
12000	**GENERAL PATIENT CARE**
12010~~R1~~	Patient Care Guidelines
12020	Glasgow Coma Scale
13000	**ENVIRONMENTAL EMERGENCIES**
13010	Poisonings
13020	Heat Related Emergencies
13030~~R1~~	Cold Related Emergencies
13040	Nerve Agent Antidote Kit (Training, Storage and Administration)
13050	Smoke Inhalation/CO Exposure/Suspected Cyanide Toxicity
13060	Drowning/Submersion Injuries
14000	**TREATMENT PROTOCOLS**
14010~~R3~~	Respiratory Emergencies - Adult
14020~~R1~~	Airway Obstruction – Adult
14030~~R1~~	Bradycardias – Adult
14040	Tachycardias – Adult
14050~~R2~~	Cardiac Arrest – Adult
14060~~R1~~	Altered Level of Consciousness/Seizures - Adult
14070~~R2~~	Burns - Adult (15 years of age and older)
14080	Stroke Treatment - Adult
14090~~R4~~	Trauma - Adult (15 years of age and older)
14100~~R1~~	Pain Management - Adult
14110~~R1~~	Psychiatric/Behavioral Emergencies - Adult
14120	Respiratory Emergencies - Pediatric (Less than 15 years of age)
14130	Airway Obstruction - Pediatric (Less than 15 years of age)
14140~~R1~~	Allergic Reactions - Pediatric (Less than 15 years of age)
14150~~R1~~	Cardiac Arrest - Pediatric (Less than 15 years of age)
14160~~R1~~	Altered Level of Consciousness - Pediatric (Less than 15 years of age)
14170~~R1~~	Seizure - Pediatric (Less than 15 years of age)
14180~~R3~~	Trauma - Pediatric (Less than 15 years of age)
14190~~R1~~	Burns - Pediatric (Less than 15 years of age)
14200	Newborn Care
14210	Obstetrical Emergencies
14220	Nausea and Vomiting
14230	Shock (Non-Traumatic)
14240	Suspected Acute Myocardial Infarction (AMI)
14250	Determination of Death on Scene
14260	End of Care and Decisions
14270	Ventricular Assist Device (VAD)

TABLE OF CONTENTS

15000	**PUBLIC SAFETY FIRST AID**
15010	Allergic Reaction and Anaphylaxis (Authorized Public Safety Personnel)
15020	Nerve Agent Exposure (Authorized Public Safety Personnel)
15030	Opioid Overdose (Authorized Public Safety Personnel)
15040~~R1~~	Respiratory Distress (Authorized Public Safety Personnel)
15050~~R1~~	Optional Skills and Medications (Authorized Public Safety Personnel)
15060	Public Safety AED Service Provider

SERIES	**APPENDIX**
16000	**MISCELLANEOUS**
16010	Definitions

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

I. PURPOSE

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

II. POLICY

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

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

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

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

III. PROCEDURE

General Procedures for MICN Authorization/Reauthorization

- Submit a completed online application using the ICEMA EMS Credentialing portal found on the ICEMA website at ICEMA.net for each MICN category applied for that includes:

  - Copy of a valid government issued photo identification.

  - Copy of a valid California RN license.

  - Proof of completion of an ICEMA approved MICN course with a passing score of at least 80 percent (80%). (MICN-BH Initial Authorization Only).

  - Proof of completion of ICEMA approved EMT-P protocol test (Initial Authorization Only).

  - Proof of completion of Skills training,, attend 4 field care audits and participate in 2 ride-outs every two years.

  - Copy of a valid American Heart Association BLS Healthcare Provider, American Red Cross BLS Healthcare Provider card or equivalent. Online course is acceptable with written documentation of skills portion.

- Copy of a valid American Heart Association Advanced Cardiac Life Support (ACLS) card or Red Cross Advanced Cardiac Life Support (ACLS) card~~.~~ ACLS cards that are obtained online must have hands on skills evaluation with an approved American Heart Association instructor.

- Submit the established ICEMA fee. Additional categories may be applied for without additional fee. Authorization cards issued within six (6) months of nursing license expiration is exempt from reauthorization fee. Fees paid for authorization are not refundable or transferable. ICEMA fees are published on the ICEMA website at ICEMA.net.

<u>MICN-BH Authorization by Challenge</u>

- Meet one (1) of the following eligibility requirements:

  - MICN in another county if approved by the ICEMA Medical Director.

  - An eligible RN who has been a MICN in ICEMA region who has let authorization lapse longer than six (6) months.

  The MICN that is challenging authorization will be required to complete the required skills training, ride outs, field care audits, and take the ICEMA written exam with a passing score of 80 percent (80%), unless waived by the ICEMA Medical Director,

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

TRANSPORT OF CRITICAL 911 PATIENTS WHEN NO AMBULANCE IS AVAILABLE

I. PURPOSE

To establish standards for the transportation of critical 911 patients in the rare event that traditional modes of transportation are unavailable. In an emergency situation, when failure to take other action would likely result in harm or negative patient outcome, field personnel may utilize the most appropriate method of transportation available.

II. POLICY

- In the event that there are no available ambulances to meet the response needs within the ~~in an~~Inland Counties operational areas.~~ within San Bernardino County~~:
- EMS field personnel may utilize the most medically appropriate method of transportation at their disposal, if:
  - The on-scene crew has a critical patient where no ALS ambulance, assistance by hire ALS ambulance, or BLS ambulance is available, has no ETA, or an extended ETA.
- All patients transported in these circumstances must have 100% CQI.
- Providers transporting patients utilizing alternative transportation modes and methods must notify the ICEMA Duty Officer within 24 hours of the 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
Albuterol MDI with spacer		1 SPECIALTY PROGRAMS ONLY	1 SPECIALTY PROGRAMS ONLY	1 SPECIALTY PROGRAMS ONLY
Aspirin, chewable - 81 mg tablet		2	1 bottle	1 bottle
Atropine 1 mg preload			2	2
Calcium Chloride 1 gm preload			1	1
Dextrose 10% in 250 ml Water (D10W)		2	2	2
Diphenhydramine (Benadryl) 50 mg		2	1	1
Epinephrine 0.15 mg Auto-Injector	2 SPECIALTY PROGRAMS ONLY	2 SPECIALTY PROGRAMS ONLY		
Epinephrine 0.3 mg Auto-Injector	2 SPECIALTY PROGRAMS ONLY	2 SPECIALTY PROGRAMS ONLY		
Epinephrine 1 mg/ml 1 mg		2	2	2
Epinephrine 0.1 mg/ml 1 mg preload			4	4
Glucagon 1 mg		1	1	1
Glucose paste	1 tube	1 tube	1 tube	1 tube
Ipratropium Bromide Inhalation Solution (Atrovent) unit dose 0.5 mg			4	4
Irrigating Saline and/or Sterile Water (1000 cc)	2	1	1	2
Lidocaine 100 mg			3	3
Lidocaine 2% Intravenous solution			1	1
Magnesium Sulfate 10 gm			1	1
Naloxone (Narcan) 2 mg preload	2	2	2	2
Nitroglycerine (NTG) - Spray 0.4 mg metered dose and/or tablets (tablets to be discarded 90 days after opening)		2	1	2
Nitroglycerine Paste 2% - 1 gm packets, **or** Nitroglycerine Paste 2% - 30 gm tube, **or** Nitroglycerine Paste 2% - 60 gm tube				2 1 1
Normal Saline for Injection (10 cc)		2	2	2
Normal Saline 100 cc			1	2

Exchanged Medications/Solutions	BLS	LALS	ALS Non-Transport	ALS Transport
Normal Saline 250 cc			1	1
Normal Saline 500 ml and/or 1000 ml		2000 ml	3000 ml	6000 ml
Ondansetron (Zofran) 4 mg Oral Disintegrating Tablets (ODT)			4	4
Ondansetron (Zofran) 4 mg IM/IV			4	4
Sodium Bicarbonate 50 mEq preload			2	2
Tranexamic Acid (TXA) 1 gm			2	2

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

AIRWAY/SUCTION EQUIPMENT

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

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

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

IV/NEEDLES/SYRINGES/MONITORING EQUIPMENT

Exchanged IV/Needles/Syringes/Monitor Equipment	**BLS**	**LALS**	**ALS Non-Transport**	**ALS Transport**
Conductive medium or Pacer/Defibrillation pads			2 each	2 each
Disposable Tourniquets		2	2	2
ECG electrodes			20	20
EZ-IO Driver			1 each	1 each
EZ-IO Needles: 25 mm 45 mm			 2 each 1 each	 2 each 1 each
Glucose monitoring device with compatible strips and OSHA approved single use lancets	1	1	1	1
3-way stopcock with extension tubing			2	2
IV Catheters - sizes 14, 16, 18, 20, 22, 24		2 each	2 each	2 each
Macrodrip Administration Set Microdrip Administration Set (60 drops / cc)		3 1	3 1	3 2

Exchanged IV/Needles/Syringes/Monitor Equipment	BLS	LALS	ALS Non-Transport	ALS Transport
Mucosal Atomizer Device (MAD) for nasal administration of medication	2	2	2	4
Pressure Infusion Bag (disposable)		1	1	1
Razors		1	2	2
Safety Needles - 20 or 21gauge and 23 or 25 gauge		2 each	2 each	2 each
Saline Lock Large Bore Tubing Needleless		2	2	2
Sterile IV dressing		2	2	2
Syringes w/wo safety needles - 1 cc, 3 cc, 10 cc catheter tip		2 each		
Syringes w/wo safety needles - 1 cc, 3 cc, 10 cc, 20 cc, 60 cc catheter tip			2 each	2 each

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

OPTIONAL EQUIPMENT/MEDICATIONS

Non-Exchange Optional Equipment/ Medications	BLS	LALS	ALS Non-Transport	ALS Transport
AED/defib pads - Adult (1), Pediatric (1)	1 each	1 each		
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
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 or EZ-IO needles and drivers	1 each	1 each
IV infusion pump			1	1
IV warming device		1	1	1
Manual IV Flow Rate Control Device			1	1
Manual powered suction device	1	1	1	1
Multi-lumen peripheral catheter			2	2

Formatted Table

Commented [JC1]: Cant locate reference to either of these doses in manual

Formatted: Not Highlight

Formatted: Not Highlight

Formatted: Not Highlight

Non-Exchange **Optional Equipment/ Medications**	**BLS**	**LALS**	**ALS Non-Transport**	**ALS Transport**
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
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

Exchanged Dressing Materials/Other Equipment/ Supplies	BLS	LALS	ALS Non-Transport	ALS Transport
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

STANDARD DRUG AND EQUIPMENT LIST - EMS AIRCRAFT

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

MEDICATIONS/SOLUTIONS	AMOUNT
Acetaminophen (Tylenol) 1 gm IV	1
Adenosine (Adenocard) 6 mg	1
Adenosine (Adenocard) 12 mg	2
Albuterol Aerosolized Solution (Proventil) - unit dose 2.5 mg	3 doses
Aspirin, chewable - 81 mg tablet	1 bottle
Atropine 1 mg preload	2
Calcium Chloride 1 gm preload	1
Dextrose 10% in 250 ml Water (D10W) *	2
Diphenhydramine (Benadryl) 50 mg	1
Epinephrine 1 mg/ml 1 mg	2
Epinephrine 0.1 mg/ml 1mg preload	3
Glucagon 1 mg	1
Glucopaste	1 tube
Ipratropium Bromide Inhalation Solution (Atrovent) unit dose 0.5 mg	3
Lidocaine 100 mg	3
Lidocaine 2% Intravenous solution	1
Magnesium Sulfate 10 gms	1
Naloxone (Narcan) 2 mg preload	2
Nitroglycerin (NTG) - Spray 0.4 mg metered dose and/or tablets (tablets to be discarded 90 days after opening.)	1
Normal Saline for Injection (10 cc)	2
Normal Saline 250 ml	1
Normal Saline 500 ml and/or 1000 ml	2000 ml
Ondansetron (Zofran) 4 mg Oral Disintegrating Tablets (ODT)	4
Ondansetron (Zofran) 4 mg IM/ IV	4
Sodium Bicarbonate 50 mEq (-*50 ml preload or 50 ml single-dose vial*)preload	2
Tranexamic Acid (TXA) 1 gm	2

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

AIRWAY/SUCTION EQUIPMENT	AMOUNT
Aircraft Oxygen source -10 L /min for 20 minutes	1
C-PAP circuits - all manufacture's available sizes	1 each
End-tidal CO2 device - pediatric and adult (may be integrated into bag)	1 each
Endotracheal Tubes cuffed - 6.0 and/or 6.5, 7.0 and/or 7.5 and 8.0 and/or 8.5 with stylet	2 each
ET Tube holders - adult	1 each
Flashlight/penlight	1
Laryngoscope handle with batteries - or 2 disposable handles	1
Laryngoscope blades - #0, #1, #2, #3, #4 curved and/or straight	1 each
Magill Forceps - Pediatric and Adult	1 each
Nasal Cannulas - infant, pediatric and adult	2 each

AIRWAY/SUCTION EQUIPMENT	AMOUNT
Naso/Orogastric tubes - 10fr or 12fr, 14fr, 16fr or 18fr	1 each
Naso/Orogastric feeding tubes - 5fr or 6fr, and 8fr	1 each
Nasopharyngeal Airways - infant, child, and adult	1 each
Needle Cricothyrotomy Device (Approved) - Pediatric and adult *or* Needles for procedure 10, 12, 14 and/or16 gauge	1 each 2 each
Non Re-Breather O_2 Mask - Pediatric and Adult, Infant Simple Mask	2 each
14 gauge 3.25 inch and 18 gauge 1.75-2 inch needles for Needle Thoracostomy	 2 each
Oropharyngeal Airways - infant, child, and adult	1 each
Portable Oxygen with regulator - 10 L /min for 20 minutes	1
Portable suction device (battery operated) *and/or* Wall mount suction device	1 each
Pulse Oximetry device	1
Small volume nebulizer with universal cuff adaptor	1
Stethoscope	1
Suction catheters - 6fr, 8fr or 10fr, 12fr or 14fr	1 each
Ventilation Bags - Infant 250 ml, Pediatric 500 ml and Adult 1 L	1 each
Water soluble lubricating jelly	1
Ridged tonsil tip suction	1

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

DRESSING MATERIALS/OTHER EQUIPMENT SUPPLIES	AMOUNT
Adhesive tape - 1 inch	2
Air occlusive dressing	1
Aircraft stretcher or litter system with approved FAA straps that allows for Axial Spinal Immobilization	1
Ankle and wrist restraints, soft ties acceptable	1
Antiseptic swabs/wipes	
Bandage shears	1

DRESSING MATERIALS/OTHER EQUIPMENT SUPPLIES	AMOUNT
Blanket or sheet	2
Blood Borne Pathogen Protective Equipment - (nonporous gloves, goggles face masks and gowns meeting OSHA Standards)	2
Cervical Collars - Rigid Pediatric & Adult all sizes *or* Cervical Collars - Adjustable Adult and Pediatric	1 each 1 each
Emesis basin or disposable bags and covered waste container	1
Head immobilization device	1
OB Kit	1
Pediatric Emergency Measuring Tape (Broselow, etc.)	1
Pneumatic or rigid splints capable of splinting all extremities	4
Provodine/Iodine swabs/wipes or antiseptic equivalent	
Roller bandages - 4 inch	3
Sterile bandage compress or equivalent	6
Sterile gauze pads - 4x4 inch	4
Sterile Sheet for Burns	2
Traction splint	1
Universal Dressing 10x30 inches	2

OPTIONAL EQUIPMENT/MEDICATIONS	Amount
Automatic ventilator (Approved)	1
Backboard padding	1
BLS AED/defib pads	1
Chemistry profile tubes	3
Nerve Agent Antidote Kit (NAAK) - DuoDote or Mark I	3
D5W in bag	1
Hemostatic Dressing *	1
IV infusion pump	1
IV warming device	1
Manual powered suction device	1
Medical Tourniquet	1
Naloxone (Narcan) Nasal Spray 4 mg	2
Needle Thoracostomy Kit (prepackaged)	2
Pediatric immobilization board	1
Translaryngeal Jet Ventilation Device	1
Vacutainer	1

* Hemostatic Dressings

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

NOTE:

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

I. PURPOSE

To define policy and procedures for hospitals to request diversion ~~temporary redirection~~ of A~~a~~dvanced L~~l~~ife S~~s~~upport (ALS) ambulances and to define procedures for the redirection of ALS ambulances by the transport providers.

II. POLICY

- Hospital diversion is driven by the hospital and may only be used if the hospital meets the criteria that is listed in this policy.
- Ambulance redirection is driven by the EMS~~transport~~ providers and may only be used if the criteria listed in this policy is met.

III. DIVERSION

- Ambulance diversion~~redirection~~ based on hospital capacity, census or staffing is not permitted in the ICEMA region. Limited diversion for hospital internal disaster and trauma Centers are permitted as outlined in this policy. ~~and will only be permitted as outlined in this policy.~~
- This policy applies to the 9-1-1 emergency system as a temporary measure and is not intended for utilization to determine destination for interfacility transports, including higher level of care transports.
- If a hospital meets internal disaster criteria, Trauma Center Diversion or any other specialty care centers with unique circumstances, immediate telephone notification must be made to the ICEMA Duty Officer by an administrative staff member who has the authority to determine that criteria has been met for ~~redirection or~~ diversion.
- Hospitals must notify EMS dispatch centers immediately via ReddiNet or available communication modalities.
- Hospitals must maintain a hospital diversion~~redirection~~ policy that conforms with this policy. The hospital policy shall include plans to educate all appropriate staff on proper utilization of diversion~~redirection~~.
- ~~Receiving hospitals cannot redirect an incoming ambulance and limited diversion/ redirection is only permitted for internal disaster or trauma centers as outlined in this policy.~~
- Within 72 hours of an incident, the hospital must provide ICEMA with a written after action report indicating the reasons for internal disaster, plans activated, adverse patient consequences and the corrective actions taken. The report must be signed by the CEO or designated responsible individual.
- ~~ICEMA may perform unannounced site visits to hospitals on temporary redirection status to ensure compliance with the request for ambulance diversionredirection.~~
- ~~ICEMA may randomly audit base hospital records to ensure redirected ambulance patients are transported to the appropriate destination.~~

- ICEMA staff may contact the hospital to determine the reasons for ambulance diversion~~redirection~~, under this policy.

- ICEMA may remove any hospital from diversion~~redirection~~ status using ReddiNet if it is determined that the request is not consistent with this policy.

IV~~II~~. REDIRECT

- Receiving hospitals cannot redirect an incoming ambulance and limited diversion is only permitted for internal disaster or trauma centers as outlined in this policy.

- ICEMA may randomly audit records to ensure redirected ambulance patients are transported to the appropriate destination.

- ICEMA may perform unannounced site visits to hospitals on temporary redirection status to ensure compliance.

V. PROCEDURE FOR DIVERSION

A request for diversio~~redirectio~~n of ALS ambulances may be made by contacting the ICEMA Duty Officer, for the following approved categories:

- CT Diversion~~Redirection~~ (for Non-Specialty Care Centers).

  - When Non-Specialty Care Centers experience CT scanner failure, the hospital can go on ambulance diversion~~redirection~~ using the ReddiNet system for EMS patients who may require CT imaging.

- Trauma Center Diversion (for use by designated Trauma Centers only)

  - The ~~on duty~~on-duty trauma surgeon must be involved in the decisions regarding any request for trauma diversion.

  - The trauma team and trauma surgeon (both first and second call) ~~and~~ are fully committed to the care of trauma patients in the operating room and are NOT immediately available for any additional incoming patients meeting approved trauma triage criteria.

  - All operating rooms are occupied with critically injured patients that meet trauma triage criteria.

  - All CT Scanners are inoperable due to scanner failure at a designated Trauma Center.

  - Internal disaster.

  NOTE: Diversion is canceled when all designated Trauma Centers are on Trauma Center Diversion.

- **Internal Disaster Diversion**

  - Requests for Internal Disaster Diversion shall apply only to physical plant breakdown affecting the Emergency Department or significant patient services.

NOTE: Examples of Internal Disaster Diversion include bomb threats, explosions, power outage and a nonfunctional generator, fire, earthquake damage, hazardous materials exposure, incidents involving the safety and/or security of a facility.

- Internal Disaster Diversion shall not be used for hospital capacity or staffing issues.
- Internal Disaster Diversion will stop all 9-1-1 transports into the facility.
- The hospital CEO or AOD shall be notified and notification documented in ReddiNet.
- If the hospital is a designated base hospital, the hospital should consider immediate transfer of responsibility for on-line direction to another base hospital. Notification must be made to the EMS provider.
- The affected hospital shall enter Internal Disaster Diversion status into ReddiNet and notify the ICEMA Duty Officer immediately.

NOTE: Some hospitals have an internal policy called internal disaster to facilitate staff movement or other surge measures. This is not the same as internal disaster referred to in this policy and should not be put out on ReddiNet.

~~**IV. EXCEPTIONS TO CT AND TRAUMA DIVERSION ONLY**~~

- **Exceptions to CT and Trauma Diversion Only**:
  - Basic life support (BLS) ambulances shall not be diverted.
  - ~~•~~ Ambulances on hospital property shall not be diverted.

  ~~•~~ With the exception of Internal Disaster Diversion involving significant plant failure, patients exhibiting unmanageable problems (i.e., difficult to manage airway, uncontrolled hemorrhage, cardiopulmonary arrest) in the field, shall be transported to the closest emergency department.

VI. PROCEDURE FOR AMBULANCE REDIRECTION (ACTIVE REDIRECT)

- Active Redirect will only be initiated at the recommendation of an ambulance supervisor, fire department Battalion Chief or above, or the ICEMA Duty Officer.
- Active Redirect can be initiated when three (3) or more ambulances are held on bed delay for more than 25~~30~~ minutes.
- Supervisory personnel should be on scene whenever possible to work with the hospital to offload patients.
- Every effort should be made to clear ambulances on bed delay.
- Once the determination has been made to place the hospital on Active Redirect, the supervisor will ensure that notification is made via ReddiNet.

- Hospitals on Active Redirect will remain in that status for a maximum of two (2) hours. If conditions resolve prior to the two (2) hour time limit, the hospital shall ~~may~~ be taken off Active Redirect.

- The paramedic has the ability to override the redirect status based on patient request and for continuity of care. (i.e. cancer patients, heart patients, transplant patients or hospital insurance).

- Any patient needing Specialty Care Services will be transported to the closest most appropriate hospital regardless of redirect status.

- Any Critical patient will be transported to the closest most appropriate hospital regardless of redirect status.

AMBULANCE PATIENT OFFLOAD DELAY (APOD)

I. PURPOSE

To establish policy for the safe and rapid transfer of patient care responsibilities between Emergency Medical Services (EMS) personnel and emergency department (ED) medical personnel.

II. CONSIDERATIONS

Delays in the transfer of patient care and offloading of patients ~~delivered to designated receiving hospitals by EMS ambulance~~ adversely affects patient care, ~~safety and the availability of ambulances for emergency responses throughout Riverside and San Bernardino counties. It is incumbent upon receiving hospitals and ambulance providers to minimize the time required to transfer patient care and return ambulances to service to ensure optimal patient care, safety and EMS system integrity.~~

III. DIRECTION OF EMS FIELD PERSONNEL

EMS field personnel ~~have a responsibility to~~ must continue to provide and document patient care in accordance with ICEMA treatment policies and protocols prior to the transfer of patient care to the designated receiving hospital. ~~ED medical personnel. Medical control and management of the EMS system, including EMS field personnel, remain the responsibility of the EMS agency medical director and all care provided to the patient must be pursuant to the Inland Counties Emergency Medical Agency (ICEMA) treatment protocols and policies.~~

IV. PATIENT CARE RESPONSIBILITY

Th~~e ultimate~~ responsibility for patient care belongs to the designated receiving hospital once the patient arrives on hospital grounds. ~~Designated receiving hospitals should implement processes for ED medical personnel to immediately triage and provide the appropriate emergency medical care for ill or injured patients upon arrival at the ED by ambulance.~~

V. TRANSFER OF PATIENT CARE

Patients Under Care of EMS Field Personnel

~~Upon arrival of a patient at the hospital by ambulance the ED medical personnel should make every attempt to receive a verbal patient report and offload the patient to a hospital bed or other suitable sitting or reclining device at the earliest possible time not to exceed 25 minutes. During the transfer of care to ED medical personnel, EMS field personnel will provide a verbal patient report containing any pertinent information necessary for the ongoing care of the patient~~. Transfer of patient care is completed once the ED medical staff has received a verbal patient report. If the transfer of care and patient offloading from the ambulance gurney exceeds ~~the~~ 25 minutes ~~standard~~, it will be documented and tracked as APOD.

~~The transporting EMS field personnel are not responsible to continue monitoring the patient or provide care within the hospital setting after transfer of patient care to ED medical personnel has occurred.~~

EMS field personnel are responsible for immediately returning to response ready status once patient care has been transferred to ED medical personnel and the patient has been offloaded from the ambulance gurney.

VI. APOD MITIGATION PROCEDURES

~~Designated receiving hospitals have a responsibility to ensure policies and processes are in place that facilitates the rapid and appropriate transfer of patient care from EMS field personnel to the ED medical personnel within 25 minutes of arrival at the ED.~~

ED medical personnel should consider the following to prevent APOD:

- Immediately acknowledge the arrival of each patient transported by EMS;
- Receive a verbal patient report from EMS field personnel; and
- Transfer patient to the hospital gurney, bed, chair, wheelchair or waiting room as appropriate for patient condition within 25 minutes of arrival at the hospital ED.

If APOD does occur, the hospital should make every attempt to:

- Provide a safe area in the ED ~~within direct sight of ED medical personnel where~~ for the EMS personnel ~~ambulance crew~~ ~~can~~ to temporarily wait while the hospital's patient remains on the ambulance gurney.
- Inform the attending paramedic or EMT of the anticipated time for the offload of the patient.
- Provide information to the supervisor of the EMS field personnel regarding the steps that are being taken by the hospital to resolve APOD.

Hospitals will provide written details to ICEMA and EMS providers of policies and procedures that have been implemented to mitigate APOD including: ~~and assure effective communication with affected partners:~~

- Processes for ~~the immediate notification of the following hospital staff through their internal~~ internal escalation ~~process of the occurrence~~ of APOD, ~~including but not limited to~~:
  - ➢ ED/Attending Physician
  - ➢ ED Nurse Manager/Director or Designee (i.e., Charge Nurse)
  - ➢ House Supervisor
  - ➢ Administrator on call
- Processes to alert ~~the following affected partners~~ via ReddiNet ~~when a condition exists that effects the timely offload of ambulance patients.~~
  - ➢ Local receiving hospitals/base hospitals
  - ➢ Fire department and ambulance dispatch centers
- Processes for ~~ED medical personnel to immediately respond to and provide care for the patient if the attending~~ EMS field providers ~~personnel~~ to alert the ED medical personnel of a decline in the patient's condition ~~of a patient being temporarily held on the ambulance gurney~~.

- EMS field personnel are directed to do the following to prevent APOD:

- ~~Provide the receiving hospital ED with the earliest possible notification via two-way radio that a patient is being transported to their facility.~~

- ~~Utilizing the appropriate safety precautions, walk-in ambulatory patients or use a wheelchair rather than an ambulance gurney if appropriate for the patient's condition.~~

- ~~Provide a verbal patient report to the ED medical personnel within 25 minutes of arrival to the ED.~~

- ~~Contact the EMS supervisor for direction if the ED medical personnel do not offload the patient within the 25 minute ambulance patient offload time standard.~~

- ~~Complete the ICEMA required authorized patient care documentation.~~

- Work cooperatively with the receiving hospital staff to transition patient care within the timeframes established in this policy.

~~VII. CONTENT AND FORMATTING OF THE VERBAL PATIENT REPORT~~

~~The verbal patient report may be provided by face-to-face communication utilizing the SBAR format. The verbal patient report will include the following elements:~~

~~**S**ituation~~
- ~~Patient age, sex, weight~~
- ~~Patient condition (mild, moderate or severe)~~
- ~~Patient chief complaint~~

~~**B**ackground~~
- ~~Mechanism of injury or history of present illness~~
- ~~Assessment findings~~
  - ~~Responsiveness/Glasgow Coma Scale (GCS)~~
  - ~~Airway~~
  - ~~Breathing~~
  - ~~Circulation~~
  - ~~Disability~~
- ~~Vital Signs~~
- ~~Past medical history, medications and allergies~~

~~**A**ssessment~~
- ~~Primary impression~~

~~**R**ecommendations~~
- ~~Treatment/interventions provided~~
- ~~Patient response to treatment/interventions~~
- ~~Request for orders (If it is a medical direction call)~~

VII~~I~~. CLINICAL PRACTICES FOR EMS FIELD PERSONNEL TO REDUCE APOD

The EMS field personnel shall utilize sound clinical judgment and follow the appropriate ICEMA policies and treatment protocols including:

- Initiate care as clinically indicated with the appropriate basic life support (BLS) and advanced life support (ALS) interventions.

- Initiate vascular access only as clinically indicated. ~~IV therapy should only be initiated pursuant to ICEMA treatment protocols for patients that require the following~~:

  - ~~Administration of IV medication(s), or~~

  - ~~Administration of IV fluid bolus or fluid resuscitation.~~

- ~~In the judgement of the attending paramedic the patient's condition could worsen and either (a) or (b) noted above may become necessary prior to arrival at the receiving hospital ED~~.

- Discontinue ECG monitoring before removing the patient from the ambulance if there are no clinical indications for cardiac monitoring.

VIII~~IX~~. APOD UNUSUAL EVENTS

In response to a major emergency that requires immediate availability of ambulances the San Bernardino County Medical Health Operational Area Coordinator may give direction to EMS field providers to immediately transfer patient care to the ED medical personnel and return to service to support the EMS system resource needs.
~~The proliferation of APOD that leads to the lack of sufficient ambulances to respond to emergencies are considered APOD Unusual Events. These events threaten public health and safety by preventing EMS response to emergency medical incidents. To mitigate the effects of these APOD Unusual Events the following are hereby established~~:

- ~~Criteria for an APOD Unusual Event~~ If offload delay exceeds 25 minutes, EMS field personnel will transfer care of the patient to ED medical personnel and transition patient to a gurney cot bed chair wheelchair or waiting room that is appropriate for patients condition.
- Transfer of care will include BLS and ALS patients that are determined to be stable and safe to transfer, based on EMS field personnel evaluation.
- EMS field personnel are required to give a verbal patient report containing any pertinent information necessary for the ongoing care of the patient. EMS field personnel will complete and post the written ePCR in accordance with existing policy. ~~:~~
-
  - ~~APOD exceeding 25 minutes is occurring, and;~~
  - ~~The ambulance provider identifies and documents low EMS system ambulance availability due to APOD~~

~~APOD Unusual Event Procedures~~

- ~~EMS field personnel are authorized to inform ED medical personnel that they are transitioning patient care and immediately offloading a patient on APOD to a hospital bed~~

~~or other suitable hospital sitting or reclining device as appropriate for patient condition provided the patient meets the following criteria:~~

- ~~Stable vital signs~~
- ~~Alert and oriented~~
- ~~No ALS interventions in place~~
- ~~Is not on a Welfare and Institutions Code (WIC) 5150 hold~~

- ~~EMS field personnel shall make every attempt to notify ED medical personnel that they must immediately return to service.~~

- ~~EMS field personnel may use the written EMS report for transfer of care if ED medical personnel are unavailable to take a verbal report and then post ePCR to hospital dashboard.~~

- ~~In the event of a major emergency that requires immediate availability of ambulances, the San Bernardino County Medical Health Operational Area Coordinator may give direction to EMS field personnel to immediately transfer patient care to ED medical personnel and return to service to support the EMS system resource needs.~~

TRAUMA TRIAGE CRITERIA

I. PURPOSE

To establish Trauma Triage Criteria that is consistent with the American College of Surgeons standards that will help identify trauma patients in the field, and based upon their injuries, direct their transport to an appropriate Trauma Center.

II. POLICY

A. Trauma Triage Criteria

Measure vitals and Level of Consciousness (LOC).

A patient shall be transported to the closest Trauma Center if any one (1) physiologic criteria is present following a traumatic event. Trauma base hospital contact shall be made.

1. **Physiologic Indicators:**

- **Glasgow Coma Scale (GCS)/**
  - ➢ Adult and Pediatric
    - ▪ GCS less than or equal to 13
- **Respiratory**
  - ➢ Adult and Pediatric
    - ▪ RR less than 10 or more than 29
    - ▪ (RR less than 20 for infant less than 1 year old) or need for ventilatory support
- **Hypotension**
  - ➢ Adult
    - ▪ BP less than 90 mm Hg
    - ▪ tachycardia
  - ➢ Pediatric
    - ▪ exhibits inadequate tissue perfusion
    - ▪ abnormal vital signs (according to age)

2. **Anatomic Indicators:**

- **Penetrating injuries to head, neck, torso and extremities proximal to the knee or elbow**
- **Blunt chest trauma resulting in chest wall instability or deformity (e.g., flail chest or ecchymosis)**
- **Two (2) or more proximal long bone fractures (femur, humerus)**

- **Crushed, degloved, mangled or pulseless extremity**
- **Amputation proximal to the wrist or ankle**
- **Pelvic fractures**
- **Open or depressed skull fracture**
- **Paralysis**

A patient shall be transported to the closest Trauma Center if any one (1) anatomic criteria is present following a traumatic event. Trauma base hospital contact shall be made.

If physiologic or anatomic criteria is not met, assess mechanism of injury and evidence of high-energy impact.

3. **Mechanism of Injury**:

- **Falls**
  - Adults: more than 20 feet (one story is equal to 10 feet)
  - Pediatric: more than 10 feet or two (2) to three (3) times the child's height
- **High-risk auto crash**
  - Intrusion, including roof: more than 12 inches occupant site
  - Ejection (partial or complete) from automobile
  - Death in the same passenger compartment
  - Vehicle telemetry data consistent with a high-risk injury
  - Child (0-9) unrestrained or in unsecured child safety seat
- **Auto versus pedestrian/bicyclist thrown, run over, or with significant (more than 20 mph) impact**
- **Motorcycle crash more than 20 mph**

If a patient has one or more of the following mechanisms of injury **with** any of the above physiologic or anatomic criteria transport to the closest TC.

If there are no associated physiologic or anatomic criteria meets one or more of the following mechanisms of injury, contact a Trauma base hospital for physician consultation to determine the patient destination. In some cases, a Trauma base hospital may direct a patient a non-trauma receiving hospital.

4. **Age and Co-Morbid Factors**:

Assess special patient or system considerations.

If the patient does not meet any of the above criteria, make Trauma base hospital contact to determine if a Trauma Center should be the destination for the following patients:

- **Older adults more than 65 years of age**
  - Risk of Injury/death increases after age 65.
  - Patient on anticoagulants and or bleeding disorders.
  - SBP less than 110 might represent shock after age 65.
  - Low impact mechanism (e.g., ground level falls might result in severe injury.
- **Children**
  - Should be triaged preferentially to pediatric capable Trauma Centers Pediatric patients (14 years and younger).
  - Suspicion of child abuse.
  - Triage children preferentially to pediatric capable Trauma Centers
  - Pediatric patients 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 closest Trauma Center.
- **Burns**
  - Without other trauma mechanism triage to closest receiving hospital or burn center.
  - With trauma mechanism, triage to Trauma Center. Make Trauma base hospital contact.
- **Pregnancy more than 20 weeks**
- **EMS Provider Judgement**

B. Radio Contact

- If not contacted at scene, the receiving Trauma base hospital must be notified as soon as possible in order to activate the trauma team.
- If the closest receiving Trauma Center is located outside the ICEMA region, and no orders or consult is needed, contact the Trauma Center that will be receiving the patient directly.
- Contact Trauma base hospital if a patients meets Trauma Triage Criteria but is refusing transport to a Trauma Center.

- In Inyo and Mono Counties, the assigned base hospital should be contacted for consultation and destination.

C. Hospital Trauma Diversion Status

Refer to ICEMA Reference #8050 - Request for Ambulance Redirection and Hospital Diversion (San Bernardino County Only).

D. Multiple Casualty Incident (MCI)

Refer to ICEMA Reference #8080 - Medical Response to a Multiple Casualty Incident.

III. REFERENCES

Number	Name
8050	Request for Ambulance Redirection and Hospital Diversion (San Bernardino County Only)
8080	Medical Response to a Multiple Casualty Incident
9010	Continuation of Care (San Bernardino County Only)
14250	Determination of Death on Scene

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 (LALS, ALS) - Specialty Programs Only)

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

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

Albuterol (Proventil) - Pediatric (LALS, ALS)

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

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

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

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

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

Aspirin, chewable (LALS, ALS)

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

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

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

Calcium Chloride - Adult (ALS)

*Calcium Channel Blocker Poisonings **(base hospital order only)**:*

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

Reference #s 5010, 7010, 7020, 13010

*For cardiac arrest with suspected hypocalcemia, hyperkalemia, hypermagnesemia or calcium channel blocker poisoning **(base hospital order only)**:*

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

Reference #s 7010, 7020, 14050

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

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

Reference #s 5010, 7010, 7020, 14030

Calcium Chloride - Pediatric (ALS)

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

Reference #s 7010, 7020, 13010

Dextrose - Adult (LALS, ALS)

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

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

Dextrose - Pediatric (LALS, ALS)

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

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

Diphenhydramine - Adult (ALS)

Diphenhydramine, 25 mg IV/IO

Diphenhydramine, 50 mg IM

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

Diphenhydramine - Pediatric (ALS)

Allergic reaction:

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

Reference #s 7010, 7020, 14140

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

Post resuscitation, persistent profound nontraumatic shock and hypotension (Push Dose Epinephrine):
Prepare Epinephrine 0.01 mg/ml solution by mixing 9 ml of normal saline with 1 ml of Epinephrine 0.1 mg/ml in a 10 ml syringe. Administer 1 ml every one (1) to five (5) minutes titrated to maintain SBP more than 90 mm Hg.

Reference #s 4060, 4080, 5010, 7010, 7020, 11010, 14050, 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.

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

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

Anaphylactic reaction (no palpable radial pulse and depressed level of consciousness):
Epinephrine (0.1 mg/ml), 0.01 mg/kg IV/IO, no more than 0.1 mg per dose. May repeat to a maximum of 0.5 mg.

Cardiac Arrest:

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

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

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

Reference # 14200

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

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

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

Fentanyl - Adult (ALS)

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

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

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

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

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

Pacing, synchronized cardioversion:

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

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

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 50100 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.200 mcg.

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) - Specialty Programs Only)

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

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

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

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

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

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

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

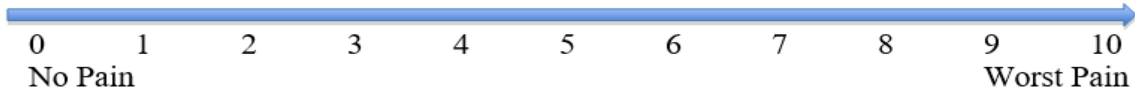
Reference #s 4060, 4080, 7010, 7020, 14120, 14140, 14190

Ketamine - Adult (ALS)

Acute traumatic injury, acute abdominal/flank pain, burn injuries, cancer related pain and sickle cell crisis:

Ketamine, 0.3 mg/kg to a max of 30 mg in a 50 - 100 ml of NS via IV over five (5) minutes. May repeat one (1) time, after 15 minutes, if pain score remains at five (5) or higher. Do not administer IVP, IO, IM, or IN.

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



Reference #s 7010, 7020, 14100

Lidocaine - Adult (ALS)

VT (pulseless)/VF:

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

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

V-Tach, Wide Complex Tachycardia - with Pulses:

Lidocaine, 1.5 mg/kg slow IV/IO

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

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

Lidocaine - Pediatric (ALS)

Cardiac Arrest:

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

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

Reference #s 5010, 7010, 7020, 14150

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

Pain associated with IO infusion:

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

Reference #s 5010, 7010, 7020, 11020

Magnesium Sulfate (ALS)

Polymorphic Ventricular Tachycardia:

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

Eclampsia (Seizure/Tonic/Clonic Activity):

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

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

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

Severe Asthma/Respiratory Distress (ALS) ***(base hospital order only)****:*

Magnesium Sulfate, 2 gm slow IV drip over 20 minutes. Do not repeat.

Reference# 14010

Magnesium Sulfate - Pediatric (ALS)

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

Reference # 14120

Midazolam (Versed) - Adult (ALS)

Behavioral Emergencies, if patient meets criteria for potentially fatal and dangerous agitation:
Midazolam, 2.5 mg IV/IO. 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.

Reference #s 7010, 7020, 14170

Naloxone (Narcan) - Adult (BLS)

For resolution of respiratory depression related to suspected opiate overdose:

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

For suspected Fentanyl overdose with respiratory depression:

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

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

Reference #s 7010, 7020, 8030, 14060

Naloxone (Narcan) - Adult (LALS, ALS)

For resolution of respiratory depression related to suspected opiate overdose:

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

For suspected Fentanyl overdose with respiratory depression:

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

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

Reference #s 4080, 7010, 7020, 14060

Naloxone (Narcan) - Pediatric (BLS)

For resolution of respiratory depression related to suspected opiate overdose:

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

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

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

Naloxone (Narcan) - Pediatric (LALS, ALS)

For resolution of respiratory depression related to suspected opiate overdose:

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

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

Reference #s 7010, 7020, 14150, 14160

Nitroglycerin (NTG) (LALS, ALS)

Nitroglycerin, 0.4 mg sublingual/transmucosal.

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

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

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

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

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

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

Nausea/Vomiting:

Ondansetron, 4 mg slow IV/IO/ODT

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

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

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

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

Oxygen (non-intubated patient per appropriate delivery device)

General Administration (Hypoxia):

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

Chronic Obstructive Pulmonary Disease (COPD):

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

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

Sodium Bicarbonate - Adult (ALS)

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

Sodium Bicarbonate, 1 mEq/kg IV/IO

Reference #s 5010, 7010, 7020, 13010

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

Sodium Bicarbonate, 50 mEq IV/IO*/ 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

PROCEDURE - STANDARD ORDERS

12-lead Electrocardiography (EMT-P)

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

Capnography (EMT-P)

- Utilize capnography in patients with respiratory distress, respiratory failure, cardiac arrest, and critically ill patients
- Perform cCapnography is required prior to for continuous monitoring of patients given medications that may cause respiratory depression. pain medication administration.
- Perform capnography after administration of Midazolam for behavioral emergencies.
- Monitor waveform, numerical value and document in ePCR.

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

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

External Jugular Vein Access (AEMT and EMT-P)

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

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

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

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

- EMT-Ps may administer Lidocaine slowly per ICEMA Reference #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 - Adult (EMT-P)

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

- Supraglottic airway is permitted only in patients who are taller than the maximum length of a pediatric emergency measuring tape (Broselow, etc.) equivalent measuring from the top of the head to the heal of the foot.

- Monitor end-tidal CO_2 and wave form capnography.

- Monitor pulse oximetry.

- If unable to place after three (3) attempts (defined as placement of the soft gel into the mouth), continue with BLS airway and proceed to nearest receiving hospital.

- Document verification of SGA (auscultation, continuous capnography).

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

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

PAIN MANAGEMENT

I. PURPOSE

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

II. FIELD ASSESSMENT/TREATMENT INDICATORS

The prehospital use of analgesics should be considered for the following:

- Acute traumatic injuries
- Acute abdominal/flank pain
- Burn injuries
- Cancer pain
- Sickle Cell Crisis
  - The inability to recall a specific traumatic incident does not necessarily preclude the administration of pain medication.

III. BLS INTERVENTIONS

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

IV. ALS INTERVENTIONS

- Perform activities identified in the BLS Interventions.
- Consider early vascular access.
- Place on cardiac monitor. Obtain capnography, monitoring waveform and numerical value as clinically indicated.
- Monitor and assess patient vital signs prior to administration of any analgesic.
- For treatment of pain as needed with a blood pressure of greater than 100 systolic:
  - Fentanyl per ICEMA Reference # 11010 - Medication - Standard Orders (adult or pediatric patients), for moderate to severe pain 6-10 on pain scale **or**

- Ketamine per ICEMA Reference # 11010 - Medication - Standard Orders (Adult Only- 15 Years of Age and Older), for moderate to severe pain 6-10 on pain scale **or**

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

- For treatment of pain as needed with a blood pressure less than 100 systolic:

  - Ketamine per ICEMA Reference # 11010 - Medication - Standard Orders, (Adult Only- 15 Years of Age and Older) for moderate to severe pain 6-10 on pain scale **or**

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

- Continuous monitoring of patients ECG and capnography is required for administration of Ketamine or fentanyl.

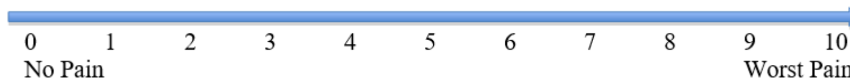
- Reassess and document vital signs, capnography, and pain scores every five (5) minutes.

V. SPECIAL CONSIDERATIONS

- ~~Once a pain medication has been administered via route of choice, changing route (i.e., from IM to IV) requires base hospital order.~~

- Shifting from one analgesic while treating a patient requires base hospital contact.

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



VI. REFERENCES

Number	Name
11010	Medication - Standard Orders
11020	Procedure- Standard Order
14240	Suspected Acute Myocardial Infarction (AMI)
14070	Burns- Adult
14090	Trauma- Adult
14190	Burns-Pediatric
14180	Trauma-Pediatric
13030	Cold Related Emergencies