AGENDA

ICEMA
MEDICAL ADVISORY COMMITTEE

December 15, 2022

1300

Purpose: Information Sharing

Meeting Facilitator: Seth Dukes

Timekeeper: Michelle Hatfield

Record Keeper: Michelle Hatfield

	AGENDA ITEM	PERSON(S)	DISCUSSION/ACTION
I.	Welcome/Introductions	Seth Dukes	
II.	Approval of Minutes	All	Discussion
III.	Discussion/Action Items		
	A. Standing EMS System Updates		
	1. Trauma Program 2. STEMI Program 3. Stroke Program	1. Loreen Gutierrez 2. Loreen Gutierrez 3. Loreen Gutierrez	1. Discussion 2. Discussion 3. Discussion
	B. HEMS Utilization Task Force	Stephen Patterson	Discussion
	C. Prehospital Ultrasound Trial Study Update	Michael Neeki	Discussion
	D. New Member Endorsements	Loreen Gutierrez	Discussion/Action
	E. Mono/Inyo County Updates	Lisa Davis/Jessica Wagner	Discussion/Action
	F. 14100-Pain Management – Base Hospital Requirement- Route Changes	Susie Moss/Seth Dukes	Discussion/Action
	G. MAC Dates for 2023	Michelle Hatfield	Discussion/Action
	H. Protocol Review 8050 – Requests for Hospital Diversion and Ambulance Redirection 8100- Ambulance Patient Offload Delay (APOD) 11010-Medication-Standard Orders	Michelle Hatfield	Discussion/Action

IV.	Public Comment Period		Discussion
V.	Future Agenda Items		Discussion
VI.	Next Meeting Date: February 23, 2023		Discussion
VII.	Adjournment		Action
VIII.	Closed Session Case Review None	MAC Committee	Discussion/Action
	A. Loop Closure Cases		
	B. Case Reviews		

MINUTES

ICEMA
MEDICAL ADVISORY COMMITTEE

October 27, 2022

1300

AGENDA ITEM		DISCUSSION/FOLLOW UP	RESPONSIBLE PERSON(S)
I.	Welcome/Introductions	Meeting was called to order at 1309	Seth Dukes
II.	Approval of Minutes	The August 25, 2022, minutes were approved. Motion to approve. MSC: Michael Neeki/Amanda Ward APPROVED AYES: Brandon Woodward, Seth Dukes, Michael Neeki, Kevin Parkes, Kenneth Fox, Troy Pennington, Lisa Davis, Leslie Parham, Steven Patterson, Susie Moss, Amanda Ward, Joy Peters, Jessica Wagner, Leigh Overton.	
III.	Discussion/Action Items		
	A. Standing EMS System Updates		
	1. Trauma Program 2. STEMI Program 3. Stroke Program	1. Hi-Desert Medical Center is in the process of becoming a Level 4 Trauma Center. The next TAC meeting is November 16th. 2. STEMI meeting was October 19th, EMS to balloon times were presented. Meeting dates for next year were approved and the meeting will resume to in person with a hybrid option. 3. The Continuation of Care poster is complete. 4. The Stroke managers are currently working on the IFT Transfer Project	Loreen Gutierrez
	B. HEMS Utilization Task Force	No updates.	Stephen Patterson

	C. Prehospital Ultrasound Trial Study Update	Program has expanded to include San Bernardino County Fire Department. Every station has been trained with new curriculum. Volume of calls remain a concern.	Michael Neeki
	D. APOD and Redirect Directives	Emergency Directives expired with the proclamation. APOD and Redirect will remain in effect provisionally until they are put in policy.	Loreen Gutierrez
	E. Committee Member Updates	Recommended candidates for open committee member positions were voted on. 1. Debbie Bervel will move to PSAP Medical Director position. 2. Sharon Brown will be the Specialty Center Nurse Manager representative. 3. A New position for Trauma Program Manager representative was approved. Motion to approve. MSC: Michael Neeki/Leslie Parham APPROVED AYES: Brandon Woodward, Seth Dukes, Michael Neeki, Kevin Parkes, Kenneth Fox, Troy Pennington, Lisa Davis, Leslie Parham, Steven Patterson, Susie Moss, Amanda Ward, Joy Peters, Jessica Wagner, Leigh Overton. ICEMA Will review the need for two Private Transport representatives. The remaining positions will be discussed and presented at the next MAC meeting.	Loreen Gutierrez
	F. Inyo/ Mono County Updates	Staffing issues continue due to a lack of volunteers. Travel season is starting. The Bishop EMT program is in process with 13 students.	Lisa Davis/ Jessica Wagner
	G. 14100-Pain Management-Base Hospital Requirement-Route Changes	Presentation was given on current policy and requested changes. Will draft changes in policy for vote next meeting.	Susie Moss
	H. 7020- Standard Drug and Equipment List- EMS Aircraft	Deferred to next meeting.	Stephanie Zimmerman
	I. 7010- Standard Drug and Equipment List- BLS/LALS/ALS	Motion to reduce number of i-gel required for non-transport vehicles to one (1) each. MSC: Leigh Overton/Troy Pennington APPROVED	Leigh Overton

		AYES: Brandon Woodward, Seth Dukes, Michael Neeki, Kevin Parkes, Kenneth Fox, Troy Pennington, Lisa Davis, Leslie Parham, Steven Patterson, Susie Moss, Amanda Ward, Joy Peters, Jessica Wagner, Leigh Overton.	
	J. Pediatric Cardiac Dysrhythmias	Request to adopt REMSA protocols for pediatric dysrhythmias. Will draft a policy and present at next meeting.	Seth Dukes
	K. Critical Care Paramedic Program	Future Critical Care Paramedic Pilot Project at Morongo Basin Ambulance was presented, and reviewed by the committee.	Craig Bell
	L. Protocol Review	No Updates.	Michelle Hatfield
IV	Public Comment Period	Kimmy Williams is the new PLN at Redlands Community Hospital.	All
V	Future Agenda Items	14100-Pain Management Policy update- Susie Moss Pediatric Cardiac Dysrhythmia- New Policy – Seth Dukes	
VI.	Next Meeting Date	December 15, 2022	
VII.	Adjournment	Meeting was adjourned at 1503	
VIII.	Closed Session A. Case Reviews B. Loop Closure Cases		

Attendees:

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

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 - 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 50~~100~~ 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)

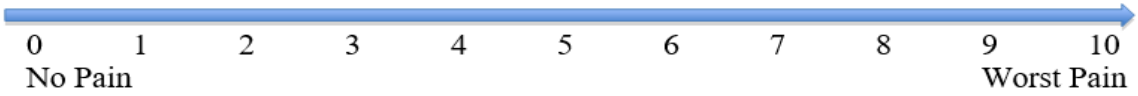
When used in combination with Albuterol MDI use Albuterol MDI dosing.

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

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.

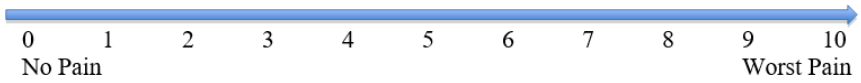
- Reassess and document vital signs, capnography, and pain scores every five (5) minutes.

V. SPECIAL CONSIDERATIONS

- ~~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