INYO COUNTY
EMERGENCY MEDICAL CARE COMMITTEE

Big Pine Fire Department
181 North Main Street
Big Pine, CA 93546

July 23, 2012
6:00 p.m.

A G E N D A

I. CALL TO ORDER

II. APPROVAL OF MINUTES **ACTION/APPROVE**
April 30, 2012

III. INTRODUCTION
Brendon Manning, RDMHS - Region VI

IV. ICEMA UPDATE **INFO/ACTION**
- A. Recruitment of ICEMA Administrator
- B. EMS MISS II Status Report
- C. Drug Shortages
- D. LEMSA Coordinator Update - Georgann Smith

IV. EMS SYSTEM MANAGEMENT REPORTS **INFO/ACTION**
- A. Base Station Report
- B. Scantron/ePCR Report

V. OLD BUSINESS **INFO/ACTION**
- A. AEMT Program
- B. MOU with Cerro Coso College for NREMT Test Site
- C. Funding for EMT Test Proctors

VI. NEW BUSINESS **ACTION/APPROVE**
- A. QI Plan/Core Measures
- B. Health Hazard Assessment
- C. General Protocols
  1. 7010 - BLS/ALS Standard Drug and Equipment List
  2. 7020 - EMS Aircraft Standard Drug and Equipment List
  3. 9120 - Nausea and Vomiting
  4. 10010 - King Airway Device - Adult
  5. 10020 - King Airway Device - Pediatric
  6. 10030 - Oral Endotracheal Intubation - Adult
  7. 10050 - Nasotracheal Intubation
  8. 10080 - Insertion of Nasogastric/Orogastric Tube
  9. 10090 - Vagal Maneuver

10. 10100 - 12-Lead Electrocardiography
11. 10140 - Intraosseous Infusion (IO)
12. 10150 - External Jugular Vein Access
13. 11030 - Non-Traumatic Hypertensive Crisis - DELETE
14. 12010 - Determination of Death on Scene
15. 12020 - Withholding Resuscitative Measures
16. 13010 - Poisonings
17. 13020 - Heat Related Emergencies
18. 13030 - Cold Related Emergencies
19. 14020 - Airway Obstruction - Pediatric
20. 14040 - Cardiac Arrest - Pediatric
21. 14090 - Newborn Care

VII. OTHER/PUBLIC COMMENT

VIII. COMMITTEE MEMBER REQUEST FOR TOPICS FOR NEXT MEETING

IX. NEXT MEETING DATE AND LOCATION

X. ADJOURNMENT

The Inyo County Emergency Medical Care Committee (EMCC) meeting facility is accessible to persons with disabilities. If assistive listening devices or other auxiliary aids or services are needed in order to participate in the public meeting, requests should be made through the Inland Counties Emergency Medical Agency at least three (3) business days prior to the EMCC meeting. The telephone number is (909) 388-5823, and office is located at 1425 South "D" Street, San Bernardino, CA.

INYO COUNTY EMCC MEETING

Lone Pine Fire Department
131 N. Jackson Street, Lone Pine, CA
MINUTES
April 30, 2012

Voting Members Present:

Judd Symons, Chair	Symons Emergency Specialties, Inc.	juddsymons@aol.com
Le Roy Kritz	Lone Pine Fire Department, Chief	LChief2401@lonepinetv.com
Lloyd Wilson	Big Pine Fire Department	dlwilson41@msn.com
Lee Barron	Southern Inyo Hospital	leebee40@aol.com
Joe Cappello	Independence Fire Department	jcappello@cebridge.net
Dr. Michael Dillon	ER Physician	MichaelDillon@qnet.com

Voting Members Absent:

Andrew Stevens	Northern Inyo Hospital	Andrew.stevens@nih.org
Mike Patterson	Sierra Life Flight, Program Director	mike@sierraaviation.com
Phil Ashworth	Independence Fire Department	philinyo@usamedia.tv
Steven Davis	Olancha Cartago Fire Dept., Chief	olanchafire@aol.com
Lisa Erwin	Northern Inyo Hospital	Lisa.Erwin@NIH.org
Dr. Rick Johnson	Inyo County Public Health	drrickjohn@gmail.com

Other Attendees:

Gina Ellis	ICHHS, Recording Secretary	gellis@inyocounty.us
Jean Turner	Health & Human Services, Director	jturner@inyocounty.us
Denice Stiles	ICEMA	DWicker-Stiles@cao.sbcounty.gov
Steve Patnaw	Bound Tree	spatnaw@boundtree.com
Gerry Tanksley	Inyo County HHS Public Health	gtanksley@inyocounty.us
Virginia Hastings	ICEMA	vhastings@cao.sbcounty.gov
Carl Dennett	Southern Inyo Fire Protection Dist.	sifpd@yahoo.com
Rick Maddux	Lone Pine Volunteer Fire Dept.	maddux.ricky@yahoo.com

I. CALL TO ORDER

Chairperson, Judd Symons called the meeting to order at 6:11 p.m.

II. APPROVAL OF JANUARY 23, 2012 MINUTES

Motion LeRoy Kritz, seconded by Lloyd Wilson to approve the minutes of the January 23, 2012, EMCC meeting. Motion carried unanimously.

III. ICEMA UPDATE

A. Legislation Update

Virginia Hastings reported that there had not been a lot of new legislation introduced. She stated that AB 1387 intended to resolve the 25 - 30 year disagreements between public and private sector transports. She went on to say that a group was put together, but that they could not reach consensus after a year. She distributed a hand out titled *1797.201 Stakeholders Work Group - Outcome Paper*, and provided more information on the subject.

She announced that she was going to retire on June 30, 2012.

B. EMS MISS II Status Report

Denice Stiles reported that ICEMA will pilot the new ImageTrend electronic patient care record (ePCR) software with AMR Redlands, San Bernardino City Fire Department and San Manuel Fire Department. The agencies who are already on the system will be the first to move over to the new system beginning in June or July 2012.

C. Drug Shortages

Ms. Stiles reported that drug shortages continue to occur, and that it was going to get worse before it gets better. ICEMA is looking at every waiver individually. The major drugs are Valium and Morphine, and any of the nausea drugs. She said that Benadryl preloaded is being discontinued and that Lasix is discontinued. She spoke about using expired medications, saying that Dr. Vaezazizi has not approved this practice. There was group discussion on the topic. She said that they are running into instances of hoarding, and that they examine those cases. Steve Patnaw stated that he produces a report every week, and that there is a new iPhone app called RX shortages.

D. EMR Update

Ms. Stiles gave an update on the Emergency Medical Responder (EMR), saying that the State is looking at developing regulations for EMR. The state EMS authority organized a task force and is looking at possible waivers or reduced fees for background checks and certification for volunteers. EMR certification will become another registry process. More information would be shared as information becomes available, but it could be 2 - 3 years.

IV. EMS SYSTEM MANAGEMENT REPORTS

A. Base Station Report

Base Station Report - Did not receive data. ICEMA will follow up with the hospital.

B. Scantron/ePCR Report

Scantron/ePCR reports were distributed. If there are any questions on the data, they should be directed to Denice Stiles, or to contact Ron Holk who is doing most of the data analysis.

V. OLD BUSINESS

A. ICEMA Web-based CE Program

Information on the web-based CE Program through the NinthBrain Suite was sent out by e-mail to everyone having an e-mail on file with ICEMA. The website is

up and running, and is free of charge to every ICEMA certified/accredited EMT and EMT-paramedic. It will save employees and providers money, so it is important that they know it is available. This system allows agencies to see when CPR cards expire, and if they need a copy of anything they can print it. In the future, ICEMA will use NinthBrain to send mass e-mails. The future goal is to get some educational opportunities beyond the classroom and into the modern era.

B. Baker to Vegas Run Update

The Baker to Vegas run occurred this past weekend. ICEMA had two (2) staff members that attended and monitored the event. It was clarified that although this race has been going on for 20 years, ICEMA found out eight (8) months ago. These personnel were jeopardizing their licenses/certifications since there was no approved ALS provider for the event and ICEMA worked diligently to ensure protocols were followed and that needs were met for the participants and patients. There will be a hot wash next week to go over the event in depth, and to look at future improvements to EMS coverage of the event. AMR volunteered their services for this politically charged event that is sponsored by the LAPRAC. Carl Dennett of Southern Inyo Fire Protection District (SIFPD) reported on the issues that it presented for their agency. He added that SIFPD would like to provide more help next year, they just need more notice.

VI. NEW BUSINESS

A. EMS Provider of the Year

Motion LeRoy Kritz, seconded by Michael Dillon to name William Eichenbaum, EMT, as the 2012 EMS Provider of the Year. Motion carried unanimously. It was said that the presentation by the Inyo County Board of Supervisor would normally be done in May, during National EMS week, but that there were no board meetings the last two weeks of May, so the presentation would have to be done in early June.

B. Funding for EMT Test Proctors (see item D)

C. Maddy Funds

Jean Turner reported on Maddy Funds, saying that the funds were distributed early last year. She spoke about what is available now, including the training funds and provided a handout, and went over it in detail.

D. MOU with Cerro Coso College

Deanna Campbell of Cerro Coso College joined the meeting by phone. There was discussion on the process and requirements of test proctoring. Ms. Turner asked if there are people in the EMCC group that would be interested in proctoring, and what would be an appropriate stipend for proctoring. Ms. Turner spoke about the Memorandum of Understanding (MOU) that Cerro Coso is requesting. She explained to contents of the MOU. It was agreed that this MOU would be between the EMCC, and not Inyo County. There was group discussion on who would pay for a proctor, how often tests would need to be offered, how big a task

is this, and if it was worth the effort. Ms. Campbell noted that Pearson VUE requires test dates to be published, she believes a semester in advance. The number of computer stations for testing would be 2-5 computers. The EMT refresher can be done online. Timing of the tests and graduating classes was discussed. It was said that some of the students take it for college credit, not to be EMTs. It was suggested that testing be done a couple of weekends in January and June, since classes get done in December and May. A suggestion was made that perhaps ICEMA staff members could assist the EMCC in coordinating the testing. Also, it may be possible to get volunteers from Mono County to assist as well. It was asked if the EMCC enter into an agreement, since it is an advisory group. A suggestion was made to add a fee onto the cost of the class for taking the test. This item needs to come back on the next agenda.

LeRoy Kritz reported they had been approved for an Advanced EMT class and that they have to have a contract with ICEMA in order to do so. The training will start on Monday, May 7, 2012.

VII. OTHER/PUBLIC COMMENT

Carl Dennett will contact Larry Levi regarding a SIFPD member sitting on the EMCC.

VIII. COMMITTEE MEMBER REQUEST FOR TOPICS FOR NEXT MEETING

- MOU with Cerro Coso College
- Funding for EMT Test Proctors

IX. NEXT MEETING DATE AND LOCATION

July 23, 2012 at the Big Pine Volunteer Fire Department.

X. ADJOURNMENT

Motion Lloyd Wilson, seconded by Michael Dillon to adjourn the meeting at 7:31p.m.

EMS Core Measures

Operations

- Response intervals
- Crash rate
- Call complaint rate
- Fleet management

Administration

- EMS cost per capita
- HR (retention rates)
- Billing

Process

Acute Cardiac Syndrome

- ASA
- 12 lead
- Clinical impression correlation (field to ED)
- Pain relief

Pain Management

Resuscitation

- Time intervals
- ROSC
- Survival

Trauma

- On scene time interval
- Over and under triage rates
- Pain relief
- Air medical transport rates

Airway Management

- Undetected esophageal intubation

Staff Report

QI INDICATORS

Operations

- Response intervals
  - *Time of call or on scene time*
- Crash rate
  - *Is this a big problem or isolated incidents?*
  - *What are the causes?*
- Call complaint rate
  - *Not sure what this means is this patient call type or is it number of calls in a set time period?*
- Fleet management
  - *Vehicle maintenance logs*

Administration

- EMS cost per capita
  - *Will monitoring this make a change in cost?*
- HR (retention rates)
- Billing
  - *Reimbursement rates*
  - *Funding stream*

Process

Acute Cardiac Syndrome

- ASA
  - *Amount given*
  - *Given appropriately*
  - *Given prior to ECG*
- 12-lead
  - *Clarity*
  - *Accuracy of interpretation*
  - *Appropriateness*
- Clinical impression correlation (field to ED)
  - *Feedback from ED physicians and Cardiology*
- Pain relief
  - *Medication given*
  - *Pain scale*
  - *Delay in medicating patient*

Pain Management

- Medication
  - *Morphine*
  - *Versed*
  - *NTG*

Resuscitation

- Time intervals
  - *Time intervals between what?*
- ROSC
  - *Times*
  - *Treatment*
- Survival
  - *Survival to what. ED or ICU or Discharge or all of them*

Trauma

- On scene time interval
  - *What is the question with on scene time?*
- Over and under triage rates
  - *How does this impact destination?*
- Pain relief
  - *Is pain relieved?*
  - *Is pain even treated?*
- Air medical transport rates
  - *How is this impacting the area?*

Airway Management

- Undetected esophageal intubation
  - *Methods of detection*
  - *Number of missed intubation*
  - *Is the King airway being used?*

Things to consider:

- What is the purpose of collecting the data?
- Is there an efficient way of collecting the data?
- Once the data is collected how will it be applied?
- What is the ultimate goal of the data?

Do the indicators reflect the categories in the QI plan:

- Personnel
- Equipment and Supplies
- Documentation and Communication
- Clinical Care and Patient Outcome
- Skills Maintenance/Competency
- Transportation/Facilities
- Public Education and Prevention
- Risk Management

Sherri Shimshy
07/17/12

Inland Counties Emergency Medical Agency

Serving San Bernardino, Inyo, and Mono Counties

Virginia Hastings, Executive Director
Reza Vaezazizi, M.D., Medical Director

DATE: June 21, 2012

TO: EMS Providers – ALS, 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
Other Interested Parties

FROM: Virginia Hastings, Executive Director
Reza Vaezazizi, MD, Medical Director

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

The following protocols have been reviewed and revised by the Protocol Education Committee (PEC) and the Medical Advisory Committee (MAC) and are now available for public comment and recommendations.

Protocol Reference #:

- 7010 BLS/ALS Standard Drug and Equipment List
- 7020 EMS Aircraft Standard Drug and Equipment List
- 9120 Nausea and Vomiting
- 10010 King Airway Device – Adult
- 10020 King Airway Device – Pediatric
- 10030 Oral Endotracheal Intubation – Adult
- 10050 Nasotracheal Intubation
- 10080 Insertion of Nasogastric/Orogastric Tube
- 10090 Vagal Maneuver
- 10100 12 Lead Electrocardiography
- 10140 Intraosseous Infusion (IO)
- 10150 External Jugular Vein Access
- 11030 Non-Traumatic Hypertensive Crisis – DELETE
- 12010 Determination of Death on Scene
- 12020 Withholding Resuscitative Measures
- 13010 Poisonings
- 13020 Heat Related Emergencies
- 13030 Cold Related Emergencies
- 14020 Airway Obstruction – Pediatric
- 14040 Cardiac Arrest – Pediatric
- 14090 Newborn Care

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

ICEMA encourages all system participants to submit recommendations, in writing, to ICEMA during the comment period. **Written comments will be accepted until Friday, July 13, 2012, at 5 pm.** Comments may be sent via hardcopy, faxed to (909) 388-5850 or via e-mail to SShimshy@cao.sbcounty.gov. Comments submitted and any revisions made will be presented at the July 19, 2012, Emergency Medical Care Committee (EMCC) meeting. The protocols will also be presented at the Inyo and Mono Counties EMCC meetings.

VH/RV/SS/mae

Enclosures

c: File Copy

BLS/ALS STANDARD DRUG & EQUIPMENT LIST

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

Exchanged Medications/Solutions	BLS	ALS Non-Transport	ALS Transport
Normal Saline 100cc		1	2
Normal Saline 250cc		1	1
Normal Saline ~~1000cc~~ 500 ml and/or 1000ml		3000 ml	6000 ml
Ondansetron (Zofran) 4mg Oral Disintegrating Tablets (ODT)		4	4
Ondansetron (Zofran) 4 mg IM/ IV		4	4
Phenylephrine HCL - 0.5mg per metered dose		1 bottle	1 bottle
Procainamide 1 gm		1	2
Sodium Bicarbonate 50 mEq preload		2	2
Verapamil 5 mg		3	3

CONTROLLED SUBSTANCE MEDICATIONS

Non-Exchange Controlled Substance Medications MUST BE DOUBLE LOCKED	BLS	ALS Non-Transport	ALS Transport
Midazolam – ~~vials of 10mg/2cc, 2mg/2cc, or 5mg/5cc~~		20-40mg	20-40mg
Morphine Sulfate – vials~~ampules~~ of 10mg ~~or 15mg~~		20-60mg	30-60mg

AIRWAY/SUCTION EQUIPMENT

Exchanged Airway/Suction Equipment	BLS	ALS Non-Transport	ALS Transport
Adult non-rebreather mask	2	2	2
BAAM Device		1	2
End Title CO2 device – Pediatric and Adult (may be integrated into bag)		1	1
CPAP circuits- all manufacture's available sizes		1 each	2 each
Endotracheal Tubes cuffed – 6.0 and/or 6.5, 7.0 and/or 7.5 and 8.0 and/or 8.5 with stylet		2 each	2 each
Endotracheal Tubes, uncuffed – 2.5, 3.0, 3.5 with stylet		2 each	2 each
Endotracheal Tubes, uncuffed – 4.0 or 4.5, 5.0 or 5.5 with stylet		2 each	2 each
ET Tube holders – pediatric and adult		1 each	2 each
Infant Simple Mask	1	2	2
King LTS-D Adult: ~~4-5 feet:~~ Size 3 (yellow) ~~5-6 feet:~~ Size 4 (red) ~~Over 6 feet:~~ Size 5 (purple)	SPECIALTY PROGRAMS ONLY 2 each	1 each	2 each
King Ped: ~~35-45 inches or~~ 12-25 kg: Size 2 (green) ~~41-51 inches or~~ 25-35 kg: Size 2.5 (orange)	SPECIALTY PROGRAMS ONLY 2 each	1 each	2 each
Nasal cannulas – pediatric and adult	2 each	2 each	2 each

Exchanged Airway/Suction Equipment	BLS	ALS Non-Transport	ALS Transport
Naso/Orogastric feeding tubes - 5fr or 6fr, and 8fr		1 each	1 each
Naso/Orogastric tubes - 10fr or 12fr, 14fr, 16fr or 18fr		1 each	1 each
Nasopharyngeal Airways – (infant, child, and adult)	1 each	1 each	1 each
Needle Cricothyrotomy Device – Pediatric and adult or Needles for procedure 10, 12, 14 and/or 16 gauge		1 each 2 each	1 each 2 each
One way flutter valve with adapter or equivalent		1	1
Oropharyngeal Airways – (infant, child, and adult)	1 each	1 each	1 each
Pediatric non-rebreather O2 mask	2	2	2
Small volume nebulizer with universal cuff adaptor		2	2
Suction Canister ~~1200 cc~~	1	1	1
Suction catheters - 6fr, 8fr or 10fr, 12fr or 14fr	1 each	1 each	1 each
Ventilation Bags – Infant 250ml, Pediatric 500ml (or equivalent) Adult	1 each 1 each	1 each 1 each	1 each 1 each
Water soluble lubricating jelly		1	1
Yaunkers tonsil tip	1	1	1

Non-Exchange Airway/Suction Equipment	BLS	ALS Non-Transport	ALS Transport
Ambulance Oxygen source –10L/min for 20 minutes	1		1
Flashlight/penlight	1	1	1
Laryngeal blades - #0, #1, #2, #3, #4 curved and/or straight		1 each	1 each
Laryngoscope handle with batteries – or 2 disposable handles		1	1
Magill Forceps – Pediatric and Adult		1 each	1 each
Portable Oxygen with regulator – 10L/min for 20 minutes	1	1	1
Portable suction device (battery operated)	1	1	1
Pulse Oximetry device	(SEE OPTIONAL EQUIPMENT SECTION, PG. 5)	1	1
Stethoscope	1	1	1
Wall mount suction device	1		1

IV/NEEDLES/SYRINGES/MONITORING EQUIPMENT

Exchanged IV/Needles/Syringes/Monitor Equipment	BLS	ALS Non-Transport	ALS Transport
~~Blood Tubing (Y-type)~~			~~2~~
Conductive medium or Pacer/Defibrillation pads		2 each	2 each
Disposable Tourniquets		2	2

Exchanged IV/Needles/Syringes/Monitor Equipment	BLS	ALS Non-Transport	ALS Transport
ECG electrodes ~~– Pediatric and Adult~~		~~3 sets each~~20	~~3 sets each~~20
Glucose monitoring device with compatible strips and OSHA approved single use lancets		1	1
EZ-IO Needles and Driver 15mm, 25mm, and 45mm Or manual IO needles ~~– Pts. 40kg or greater: 25mm, 15 gauge~~ ~~Pts. 3-39 kg: 15mm, 15 gauge~~ ~~LD needle~~ ~~3-way stopcock with extension tubing~~		 2 each 1 each 1 2	 2 each 1 each 1 2
3-way stopcock with extension tubing		2	2
IO Needles - sizes 16 and 18 gauge Optional		1 each	1 each
IV Catheters – sizes 14, 16, 18, 20, 22, 24		2 each	2 each
Microdrip Administration Set (60 drops/cc) Macrodrip Administration Set (10 drops/cc)		1 3	2 3
Mucosal Atomizer Device (MAD) for nasal administration of medication		4	4
Pressure Infusion Bag (disposable)		1	1
Razors		2	2
Safety Needles – 20 or 21gauge and 23 or 25 gauge		2 each	2 each
Saline Lock Large Bore Tubing Needless		2	2
Sterile IV dressing		2	2
Syringes w/wo safety needles – 1cc, 3cc, 10cc, 20cc, 60cc catheter tip		2 each	2 each

Non-Exchange IV/Needles/Syringes/Monitor Equip	BLS	ALS Non-Transport	ALS Transport
12 Lead ECG Monitor and Defibrillator with TCP and printout		1	1
Blood pressure cuff – large adult or thigh cuff, adult, child and infant	1	1	1
~~Defibrillator (adult and pediatric capabilities) with TCP and printout~~		1	1
Needle disposal system (OSHA Approved)		1	1
Thermometer - Mercury Free with covers	1	1	1

OPTIONAL EQUIPMENT/MEDICATIONS

Non-Exchange Optional Equipment/Medications	BLS	ALS Non-Transport	ALS Transport
AED/defib pads	2		
Ammonia Inhalants		2	2
Approved Automatic CPR device	1	1	1
Approved Automatic ventilator		1	1
Backboard padding	1	1	1
~~Bone Injection Drill (adult and pediatric) or ICEMA approved IO device~~		2	2
Buretrol		1	1
Capnography monitor and supplies, may be integrated in the cardiac monitor		1	1
Chemistry profile tubes		3	3
Gum Elastic intubation stylet		2	2
Hemostatic combat gauze	1	1	1
IV infusion pump		1	1
IV warming device		1	1
Manual IV Flow Rate Control Device			
Manual powered suction device	1	1	1
Medical Tourniquet	1	1	1
Multi-lumen peripheral catheter		2	2
Needle Thoracostomy Kit (prepackaged)		2	2
Pitocin		20 units	20 units
Pulse Oximetry device	1		
Translaryngeal Jet Ventilation Device		1	1
Vacutainer		1	1

DRESSING MATERIALS/OTHER EQUIPMENT/SUPPLIES

Exchanged Dressing Materials/Other Equip/Supplies	BLS	ALS Non-Transport	ALS Transport
Adhesive tape – 1 inch	2	2	2
Air occlusive dressing (Vaseline gauze)	1	1	1
Ankle & wrist restraints, soft ties acceptable	1	0	1
Antiseptic swabs/wipes		10	10
Bedpan or fracture pan Urinal	1 1		1 1
Cervical Collars – Rigid Pediatric & Adult or Cervical Collars – Adjustable Adult & Pediatric	2 each 2 each	2 each 2 each	2 each 2 each
Cold Packs	2	2	2
Emesis basin or disposable bags & covered waste	1	1	1

Exchanged Dressing Materials/Other Equip/Supplies	BLS	ALS Non-Transport	ALS Transport
container			
Head immobilization device	2	2	2
OB Kit	1	1	1
Pneumatic or rigid splints capable of splinting all extremities	4	2	4
Provodine/Iodine swabs/wipes		10	10
Roller bandages – 4 inch	6	3	6
Sterile bandage compress or equivalent	6	2	6
Sterile gauze pads – 4x4 inch	4	4	4
Sterile Sheet for Burns	2	2	2
Universal Dressing 10x30 inches	2	2	2

Non-Exchange Dressing Materials/Other Equip/Supplies	BLS	ALS Non-Transport	ALS Transport
Ambulance gurney	1		1
Bandage Shears	1	1	1
Blood Borne Pathogen Protective Equipment - (nonporous gloves, goggles face masks & gowns meeting OSHA Standards)	2	2	2
Drinkable water in secured plastic container or equivalent	1 gallon		1 gallon
Long board with restraint straps	1	1	1
Pediatric immobilization board	1	1	1
Pillow, pillow case, sheets & blanket	1 set		1 set
Short extrication device	1	1	1
Straps to secure patient to gurney	1 set		1 set
Traction splint	1	1	1
Triage Tags- CAL Chiefs or ICEMA approved	~~30~~20	~~30~~20	~~30~~20

EMS AIRCRAFT STANDARD DRUG & EQUIPMENT LIST

Each Aircraft will 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

Medications/Solutions	Amount
~~Activated Charcoal 25 gm~~ Per MAC remove from list	~~2~~
Adenosine (Adenocard) 6mg	30mg
Adrenaline (Epinephrine) 1:1,000	2mg
Adrenaline (Epinephrine) 1:10,000	3mg
Albuterol Aerosolized Solution (Proventil)-unit dose 2.5mg	4~~2~~ doses
Aspirin, chewable - 81mg tablet	1bottle
Atropine 1mg preload	3mg
Calcium Chloride	1gm
Dextrose 25%	5~~0~~gm
Dextrose 50%	50gm
Diphenhydramine (Benadryl) 50mg	50mg
~~Furosemide (Lasix)~~	~~40mg~~
Glucagon	1mg
Glucopaste	1 tube
Intropin (Dopamine)	200mg
Ipratropium Bromide Inhalation Solution (Atrovent) unit dose 0.5mg	4
Lidocaine	300mg
Lidocaine 1 gm or 1 bag pre-mixed 1 gm/250cc D5W	1~~2~~gm
Lidocaine 2% (Viscous)	2oz
Magnesium Sulfate 10mg	10gms
Naloxone (Narcan)	4 mg~~10mg~~
Nitroglycerin – Spray 0.4 mg metered dose and/or tablets (tablets to be discarded 90 days after opening.)	1
Normal Saline for Injection (10cc)	2
Normal Saline 250ml	1
Normal Saline ~~1000ml~~ 500ml and/or 1000ml	4000 ml
Ondansetron (Zofran) 4mg Oral Disintegrating Tablets (ODT)	4
Ondansetron (Zofran) 4 mg IM/ IV	4
Phenylephrine HCL - 0.5mg per metered dose	1bottle

Medications/Solutions	Amount
Procainamide	1gm
Sodium Bicarbonate	100mEq
Verapamil (Isoptin)	15mg

CONTROLLED SUBSTANCE MEDICATIONS

Controlled Substance Medications – MUST BE DOUBLE LOCKED	Amount
Midazolam – ~~vials of 10mg / 2ml~~	20-40mg
Morphine Sulfate – vials~~ampules of~~ 10mg	20-60mg

AIRWAY/SUCTION EQUIPMENT

Airway/Suction Equipment	Amount
BAAM Device	1
C-PAP circuits - all manufacture's available sizes	1 each
Endotracheal tubes, uncuffed –2.5, 3.0, 3.5 with stylet	2 each
Endotracheal Tubes, uncuffed – 4.0 or 4.5, 5.0 or 5.5 with stylet	2 each
Endotracheal Tubes cuffed – ~~6.0, 7.0, 7.5 and 8.0~~ 6.0 and/or 6.5, 7.0 and/or 7.5 and 8.0 and/or 8.5 with stylet	2 each
ET Tube holders – pediatric and adult	1 each
King LTS-D Adult: ~~4-5 feet:~~ Size 3 (yellow) ~~5-6 feet:~~ Size 4 (red) ~~Over 6 feet:~~ Size 5 (purple)	1 each
King Ped: ~~35-45 inches or~~ 12-25 kg: Size 2 (green) ~~41-51 inches or~~ 25-35 kg: Size 2.5 (orange)	1 each
~~Malleable Stylet – pediatric and adult~~	1 each
Nasal Cannulas – infant, pediatric and adult	2 each
Naso/Orogastric tubes - 10fr or 12fr, 14fr, 16fr or 18fr	1 each
Naso/Orogastric feeding tubes - 5fr or 6fr, and 8fr	1 each
Nasopharyngeal Airways – infant, child, and adult	1 each
Needle Cricothyrotomy Device (Approved) – Pediatric and adult *or* Needles for procedure 10, 12, 14 and/or16 gauge	1 each 2 each
Non Re-Breather O_2 Mask – Pediatric and Adult, Infant Simple Mask	2 each
One way flutter valve with adapter or equivalent	1
Oropharyngeal Airways – infant, child, and adult	1 each
Small volume nebulizer with universal cuff adaptor	2
Suction catheters - 6fr, 8fr or 10fr, 12fr or 14fr	1 each
Ventilation Bags – Infant 250ml, Pediatric 500ml and Adult 1L	1 each
Water soluble lubricating jelly	1

Airway/Suction Equipment	Amount
Yaunkers tonsil tip	1

Durable Items Airway/Suction Equipment	Amount
Aircraft Oxygen source –10L/min for 20 minutes	1
End-title CO2 device – pediatric and adult (may be integrated into bag)	1 each
Flashlight/penlight	1
Laryngoscope handle with batteries – or 2 disposable handles	1
Laryngeal blades - #0, #1, #2, #3, #4 curved and/or straight	1 each
Magill Forceps – Pediatric and Adult	1 each
Portable Oxygen with regulator – 10L/min for 20 minutes	1
Portable suction device (battery operated) *and/or* Wall mount suction device	1 each
Pulse Oximetry device	1
Stethoscope	1

IV/NEEDLES/SYRINGES/MONITORING EQUIPMENT

IV/Needles/Syringes/Monitoring Equipment	Amount
Conductive medium *or* Adult and Pediatric Pacer/Defibrillation pads	2 each
ECG – Pediatric and Adult	20 patches~~3 sets each~~
EZ IO Needles and Driver 15mm, 25mm, and 45mm Or manual IO needles ~~– Pts. 40kg or greater: 25mm, 15 gauge~~ ~~Pts. 3-39 kg: 15mm, 15 gauge~~ ~~LD needle~~ ~~3-way stopcock with extension tubing~~	 2 each ~~2 each~~ 1 ~~2~~
3-way stopcock with extension tubing	2
IO Needles - sizes 16 and 18 gauge Optional	1 each
~~3-way stopcock~~	2
IV Catheters – sizes 14, 16, 18, 20, 22, 24	2 each
Macrodrip Administration Set (10 drops/ml) Microdrip Administration Set (60 drops/ml)	3 1
Mucosal Atomizer Device (MAD) for nasal administration of medication	4
Safety Needles – 20 or 21 gauge and 23 or 25 gauge	2 each
Saline Lock	2
Syringes w/wo safety needles – 1ml, 3ml, 10ml, 20ml, 60ml catheter tip	2 each

~~Durable Items~~ IV/Needles/Syringes/Monitoring Equipment	Amount

~~Durable Items~~ IV/Needles/Syringes/Monitoring Equipment	Amount
Blood pressure cuff - large adult or thigh cuff, adult, child and infant	1 set
12 Lead ECG Monitor and Defibrillator with TCP and printout	1
~~Defibrillator (adult and pediatric capabilities) with TCP and printout~~	1
Glucose monitoring device	1
Needle disposal system (OSHA approved)	1
Pressure infusion bag	1
Thermometer - Mercury free with covers	1

OPTIONAL EQUIPMENT/MEDICATIONS

Optional Equipment/Medications	Amount
Ammonia Inhalants	2
Automatic ventilator (Approved)	1
Backboard padding	1
BLS AED/defib pads	1
~~BLS/ALS Handheld Resuscitator (CAREvent®)~~	1
~~Bone Drill (adult & Peds) or ICEMA approved IO device~~	2
Capnography monitor and supplies, may be integrated in the cardiac monitor	1
Chemistry profile tubes	3
D5W in bag	1
Hemostatic combat gauze	1
IV infusion pump	1
IV warming device	1
Manual powered suction device	1
Medical Tourniquet	1
~~Multi-lumen peripheral catheter~~	1
Needle Thoracostomy Kit (prepackaged)	2
Pitocin	2
Translaryngeal Jet Ventilation Device	1 ~~20 units~~
Vacutainer	1

DRESSING MATERIALS/OTHER EQUIPMENT/SUPPLIES

Dressing Materials/Other Equipment Supplies	Amount
Adhesive tape – 1 inch	2
Air occlusive dressing (Vaseline gauze)	1
Ankle & wrist restraints, soft ties acceptable	1
Antiseptic swabs/wipes	
Cervical Collars – Rigid Pediatric & Adult *or*	2 each

Dressing Materials/Other Equipment Supplies	Amount
Cervical Collars – Adjustable Adult & Pediatric	2 each
Emesis basin or disposable bags & covered waste container	1
Head immobilization device	2
OB Kit	1
Pneumatic or rigid splints capable of splinting all extremities	4
Provodine/Iodine swabs/wipes	
Roller bandages – 4 inch	3
Sterile bandage compress or equivalent	6
Sterile gauze pads – 4x4 inch	4
Sterile Sheet for Burns	2
Universal Dressing 10x30 inches	2

~~Durable Use~~ Dressing Materials/Other Equipment Supplies	Amount
Aircraft stretcher or litter system with approved FAA straps that allows for Axial Spinal Immobilization	1
Bandage Shears	1
Blanket or sheet	2
Blood Borne Pathogen Protective Equipment - (nonporous gloves, goggles face masks & gowns meeting OSHA Standards)	2
Pediatric immobilization board	1
Short extrication device	1
Traction splint	1

NAUSEA AND VOMITING

FIELD ASSESSMENT/TREATMENT INDICATORS

1. Nausea
2. Vomiting
3. Prophylactic treatment of narcotic induced nausea and/or vomiting

CONTRAINDICATIONS

Patients under 4 years of age.

Known sensitivity to Ondansetron or other 5-HT3 antagonists:

1. Granisetron (Kytril)
2. Dolasetron (Anzemet)
3. Palonosetron (Aloxi)

ALS PROCEDURE

1. Assess patient for need for anti-emetic therapy
2. Maintain airway
3. Position of comfort
4. Oxygen
5. Cardiac monitoring in patients with history of cardiac problems

DOSAGE: PATIENTS FOUR (4) YEARS OLD TO ADULT

1. Ondansetron 4mg IM or slow IV push over 1 to 2 minutes~~(greater than 30 seconds)~~.
2. Ondansetron 4mg Oral Disintegrating Tablet (ODT).
3. All patients four (4) years to eight (8) years old: may give a total of 4mgs of Ondansetron prior to Base Station contact.
4. All patients nine (9) and older: may give Ondansetron 4mg and may repeat twice, at

10 minute intervals, for a total of 12mgs prior to Base Station contact.

5. Base Station may order additional doses of Ondansetron for continuing nausea or vomiting.

6. May give Ondansetron 4mg when giving morphine IV to prevent nausea or vomiting.

DOCUMENTATION

Documentation will be done on the patient care record (O1A or ePCR). The patient's response to the medication and vital signs will be documented on the PCR.

KING AIRWAY DEVICE (PERILARYNGEAL) - ADULT

FIELD ASSESSMENT/TREATMENT INDICATORS

1. Use of the King Airway adjunct may be performed only on those patients who meet **ALL** of the following criteria:

   a. Unresponsive, agonal respirations ~~and apneic~~ (less than six (6) breaths per minute) or apneic.

   b. No gag reflex.

   c. Anyone over four (4) feet in height

      i. 4-5 feet: Size 3 (connector color: yellow)

      ii. 5-6 feet: Size 4 (connector color: red)

      iii. 6 feet and over: Size 5 (connector color: purple)

ADDITIONAL CONSIDERATIONS

1. BVM management not adequate or effective.

2. A King Airway adjunct should not be removed unless it becomes ineffective ~~there is a malfunction~~.

3. Medications may **NOT** be given via the King Airway.

CONTRAINDICATIONS

1. Conscious patients with an intact gag reflex.

2. Known ingestion of caustic substances.

3. Suspected foreign body airway obstruction (FBAO).

4. Facial and/or esophageal trauma.

5. Patients with known esophageal disease (cancer, varices, surgery, etc.).

6. Epiglottitis

5.7. Airway burns

PROCEDURE

1. Using the information provided, choose the correct KING LTS-D size based on patient height.

2. Test cuff inflation system by injecting the maximum recommended volume of air into the cuffs (size 3 – 60 ml; size 4 – 80 ml; size 5 – 90 ml). Prior to insertion, disconnect Valve Actuator from Inflation Valve and remove all air from both cuffs.

3. Apply a water-based lubricant to the beveled distal tip and posterior aspect of the tube taking care to avoid introduction of lubricant in or near the ventilatory openings.

4. Have a spare KING LTS-D ready and prepared for immediate use.

5. Pre-oxygenate.

6. Position the head. (The ideal head position for insertion of the KING LTS-D is the "sniffing position".)

7. Hold the KING LTS-D at the connector with dominant hand. With non-dominant hand, hold mouth open and apply chin lift.

8. With the KING LTS-D rotated laterally 45-90°, introduce tip into mouth and advance behind base of tongue.

9. Rotate the tube back to the midline as the tip reaches the posterior wall of the pharynx.

10. Without exerting excessive force, advance KING LTS-D until base of connector is aligned with teeth or gums.

11. Holding the KLT 900 Cuff Pressure Gauge in non-dominant hand, inflate cuffs of the KING LTS-D to 60 cm H20. If a cuff pressure gauge is not available and a syringe is being used to inflate the KING LTS-D, inflate cuffs with the minimum volume necessary to seal the airway at the peak ventilatory pressure employed (just seal volume).

12. Attach the breathing circuit to the 15 mm connector of the KING LTS-D. While gently bagging the patient to assess ventilation, simultaneously withdraw the airway

until ventilation is easy and free flowing (large tidal volume with minimal airway pressure).

13. Reference marks are provided at the proximal end of the KING LTS-D which when aligned with the upper teeth give an indication of the depth of insertion.

14. Confirm proper position by auscultation, chest movement and/or verification of CO2 by capnography.

15. Re-adjust cuff inflation to 60 cm H2O (or to just seal volume).

16. Secure KING LTS-D to patient.

DOCUMENTATION

In the event the receiving physician discovers the device is improperly placed, an incident Report must be completed by the receiving hospital and forwarded to ICEMA within twenty-four (24) hours of the incident. Forms are available as part of the protocol manual and on the ICEMA website.

KING AIRWAY DEVICE (PERILARYNGEAL) – PEDIATRIC
(Less than 15 years of age)

FIELD ASSESSMENT/TREATMENT INDICATORS

1. Use of the King Airway adjunct may be performed only on those patients who meet **ALL** of the following criteria:

   a. Unresponsive, agonal respirations ~~and apneic~~ (less than 6 per minute) or apneic.

   b. No gag reflex.

   c. Pediatric patients meeting the following criteria:

      i. 35-45 inches or 12-25 kg: Size 2 (connector color: green)

      ii. 41-51 inches or 25-35 kg: Size 2.5 (connector color: orange).

ADDITIONAL CONSIDERATIONS

1. BVM management not adequate or effective.

2. A King Airway adjunct should not be removed unless it becomes ineffective~~there is a malfunction~~.

3. Medications may **NOT** be given via the King Airway.

CONTRAINDICATIONS

1. Conscious patients with an intact gag reflex.

2. Known ingestion of caustic substances.

3. Suspected foreign body airway obstruction (FBAO).

4. Facial and/or esophageal trauma.

5. Patients with known esophageal disease (cancer, varices, surgery, etc.).

6. Epiglottitis

7. Airway burns

PROCEDURE

1. Using the information provided, choose the correct KING LT size based on patient height.

2. Test cuff inflation system by injecting the maximum recommended volume of air into the cuffs (size 2: 25–35 ml; size 2.5: 30-40 ml). Prior to insertion, disconnect Valve Actuator from Inflation Valve and remove all air from both cuffs.

3. Apply a water-based lubricant to the beveled distal tip and posterior aspect of the tube taking care to avoid introduction of lubricant in or near the ventilatory openings.

4. Have a spare KING LT ready and prepared for immediate use.

5. Pre-oxygenate.

6. Position the head. (The ideal head position for insertion of the KING LT is the "sniffing position.")

7. Hold the KING LT at the connector with dominant hand. With non-dominant hand, hold mouth open and apply chin lift.

8. With the KING LT rotated laterally 45-90°, introduce tip into mouth and advance behind base of tongue.

9. Rotate the tube back to the midline as the tip reaches the posterior wall of the pharynx.

10. Without exerting excessive force, advance KING LT until base of connector is aligned with teeth or gums.

11. Holding the KLT 900 Cuff Pressure Gauge in non-dominant hand, inflate cuffs of the KING LT to 60 cm H20. If a cuff pressure gauge is not available and a syringe is being used to inflate the KING LT, inflate cuffs with the minimum volume necessary to seal the airway at the peak ventilatory pressure employed (just seal volume).

12. Attach the breathing circuit to the 15 mm connector of the KING LT. While gently bagging the patient to assess ventilation, simultaneously withdraw the airway until

ventilation is easy and free flowing (large tidal volume with minimal airway pressure).

13. Reference marks are provided at the proximal end of the KING LT which when aligned with the upper teeth give an indication of the depth of insertion.

14. Confirm proper position by auscultation, chest movement and/or verification of CO2 by capnography.

15. Re-adjust cuff inflation to 60 cm H2O (or to just seal volume).

16. Secure KING LT to patient.

DOCUMENTATION

In the event the receiving physician discovers the device is improperly placed, attached is an Incident Report that must be filled out and forwarded to ICEMA within one (1) week by the receiving hospital.

ORAL ENDOTRACHEAL INTUBATION - ADULT

AUTHORITY

Sections 1797.107, 1797.172 and 1797.176, Health and Safety Code.

Reference: Sections 1797.90, 1797.172, 1797.202, 1797.220, 1798, 1798.2, 1798.3 and 1798.105, Health and Safety Code

FIELD ASSESSMENT/TREATMENT INDICATORS

1. Non-responsive and apneic patients.

2. Agonal or failing respirations with~~and/or~~ no gag reflex present.

3. Prolonged ventilation is required and adequate ventilation cannot otherwise be achieved.

Procedure may **initially** be contraindicated with suspected ALOC per Protocol Reference #11080, Altered Level of Consciousness/Seizures.

PROCEDURE

1. Support ventilations with appropriate basic airway adjuncts. Use in-line cervical stabilization as needed to prevent lateral movement of the head~~for suspected neck injury~~.

2. Immediately prior to intubation, consider prophylactic Lidocaine 1.5mg/kg IV for suspected head/brain injury.

3. Select appropriate cuffed tube and pre-oxygenate. Cricoid pressure should be applied during intubation to protect against regurgitation of gastric contents.

   a. Visualize the epiglottis and vocal cords with the laryngoscope. Insert the endotracheal tube until the entire balloon is 2cm past the vocal cords. Placement efforts must stop after twenty (20) seconds for ventilation.

   b. Inflate the balloon with air to the point where no air leak can be heard; listen to breath sounds and resume ventilation with 100% oxygen. Secure the endotracheal tube.

c. Monitor end-tidal CO_2 with capnography when available and monitor/or pulse oximetry and suction the trachea when necessary.

d. Document methods of verifying~~ication~~ ~~of~~ tube placement, (auscultation, visualization, capnography when available).

4. If unable to place ET after a maximum of three (3) intubation attempts (an attempt is considered made when tube passes the gum line), and if all procedures to establish an adequate airway fail, consider needle cricothyrotomy per protocol Reference #10070, Needle Cricothyrotomy.

DOCUMENTATION

In the event the receiving physician discovers the device is improperly placed, an Incident Report must be completed by the receiving hospital and forwarded to ICEMA within twenty-four (24) hours of the incident. Forms are available as part of the protocol manual and on the ICEMA website.

NASOTRACHEAL INTUBATION

FIELD ASSESSMENT/TREATMENT INDICATORS

1. Possible cervical spine injury with clenched jaw and gag reflex.

2. Trapped and inaccessible for direct laryngoscopy.

3. Severe respiratory distress per Protocol Reference #11010, Adult Respiratory Emergencies.

4. Patient nare is able to accommodate size 7.0, 7.5 or 8.0 endotracheal tubes.

ABSOLUTE CONTRAINDICATIONS

1. Apnea

2. Failed CPAP

RELATIVE CONTRAINDICATIONS

Base Station Contact Required

1. For significant trauma to the face or nose and/or possible basilar skull fracture.

2. For patients on anticoagulant therapy.

3. Suspected airway burns

PROCEDURE

1. Support ventilations with appropriate basic airway adjuncts and explain the procedure to a conscious patient.

2. Immediately prior to intubation, consider prophylactic Lidocaine 1.5mg/kg IVP for suspected head/brain injury.

3. Select the nostril to be used and inspect for patency and air flow. Select the appropriate cuffed tube and pre-oxygenate patient with 100% oxygen prior to attempting procedure.

a. If patient becomes apneic, discontinue procedure and attempt oral intubation.

b. Lubricate the distal tip of endotracheal tube with a water soluble jelly or viscous Lidocaine.

c. Position the patient as tolerated. Hold in-line cervical stabilization if neck injury is suspected.

d. Administer one (1) metered dose, 0.5mg of phenylephrine HCL to the selected nostril. May be repeated once prior to additional attempt.

e. With one hand, advance ET tube into the selected nostril with bevel facing out while applying cricoid pressure with the other hand. Monitor breath sounds continuously with Beck Airway Airflow Monitor (BAAM) while gently guiding the tube into the trachea. ~~Use of BAAM device could assist with proper placement.~~

f. Inflate the balloon with air and ventilate with 100% oxygen. Secure the ET tube.

g. Verify and document tube placement.

h. Monitor end-tidal CO_2, capnography and/or pulse oximetry during procedure.

i. Suction the trachea when necessary.

4. Contact Base Station if unable to place ET tube after a maximum of three (3) nasotracheal intubation attempts or if unable to adequately ventilate patient via BVM.

DOCUMENTATION

In the event the receiving physician discovers the device is improperly placed, an Incident Report must be completed by the receiving hospital and forwarded to ICEMA within twenty-four (24) hours of the incident. Forms are available as part of the protocol manual and on the ICEMA website.

INSERTION OF NASOGASTRIC/OROGASTRIC TUBE

FIELD ASSESSMENT/TREATMENT INDICATORS

1. Any intubated patient where gastric distention may impede ABC's.

2. Oral route for patients with mid-facial trauma and all patients less than six (6) months of age.

3. Conscious patients with gastric distention and/or vomiting.

CONTRAINDICATIONS

1. History of esophageal strictures, varices and/or other esophageal diseases.

2. Caustic ingestion.

3. Significant facial or head trauma.

4. History of bleeding disorders.

PROCEDURE

1. Explain procedure, then position patient in high fowlers unless otherwise contraindicated and select appropriate size naso/orogastric tube: adults 16-18fr, adolescents 12-14fr, children 8-10fr or infants 5-6fr.

2. Measure and mark the gastric tube for proper insertion length and have suction equipment readily available.

   a. Nasogastric -- Combined distance between the tip of the nose to the ear lobe to the xiphoid process.

   b. Orogastric -- Combined distance between the corner of the mouth to the ear lobe to the xiphoid process.

3. Examine both nares to determine nare with best airflow or examine oropharyngeal cavity for obstructions or secretions then:

   a. Lubricate distal third of gastric tube with a water-soluble lubricant or viscous Lidocaine gel.

b. Gently pass tube posteriorly along floor of nasal cavity.

c. Instruct patient to swallow (if conscious).

d. If resistance is met while using the nasal route, remove and attempt other nostril.

e. Slowly rotate and advance tube during insertion until pre-designated mark is at tip of nose.

f. If resistance is met, remove tube and attempt again.

4. For those adult patients with King LTS-D in place (Refer to Protocol #10010 King Airway Device - Perilaryngeal):

   a. The gastric access lumen allows the insertion of up to an 18 Fr diameter gastric tube into the esophagus and stomach.

   b. Lubricate gastric tube prior to insertion.

5. Confirm proper placement by:

   a. Aspiration of stomach contents.

   b. Injection of 30-60ml of air into tube and auscultate for the sound of air over the epigastric region.

6. Secure tube to bridge of nose (nasogastric) or side of mouth (orogastric).

7. Attach gastric tube to suction tubing and adjust to low suction or some other type of approved suction device.

8. If patient experiences respiratory distress at anytime during procedure, remove tube immediately.

DOCUMENTATION

In the event the receiving physician discovers the device is improperly placed, an incident Report must be completed by the receiving hospital and forwarded to ICEMA within twenty-four (24) hours of the incident. Forms are available as part of the protocol manual and on the ICEMA website.

VAGAL MANEUVERS

FIELD ASSESSMENT/TREATMENT INDICATORS

Stable Narrow Complex Tachycardias.

RELATIVE CONTRAINDICATONS

1. Hypertension

2. Suspected STEMI ECG~~acute MI~~

3. Suspected head/brain injury

PROCEDURE

1. Explain procedure to patient.

2. Have patient perform one of the following procedures:

   a. Have the patient pinch nostrils together, close mouth and blow against a closed glottis.

   b. Have patient bear down as if having a bowel movement.

   c. ~~Have patient submerge face in ice water or apply cold wet washcloth against face (preferred method for infants).~~

3. All procedures should be performed until arrhythmia is terminated or for a maximum of ten (10) seconds.

4. Reassess cardiac and hemodynamic status. Document rhythm before, during and after procedure.

5. If rhythm does not convert within ten (10) seconds, follow Protocol Reference #11050, Adult Tachycardias.

12 LEAD ELECTROCARDIOGRAPHY

PURPOSE

To identify guidelines for the acquisition, interpretation and transmission of a 12 lead ECG in the prehospital setting to facilitate early identification STEMI patients and prompt transportation to a STEMI Receiving Center (SRC).

NOTE: 12 lead ECG training and competency is mandatory in the ICEMA region for all ALS providers.

POLICY

Paramedics will obtain a 12 lead ECG in patients suspected of having acute coronary syndrome and provide treatment in accordance with this policy.

INDICATIONS

Any and all patients whose medical history and/or presenting complaints are consistent with an acute coronary syndrome. Patients will have one or more of the following:

1. Chest or upper abdominal discomfort suggestive of acute coronary syndrome.
2. New onset cardiac dysrhythmias (including adult cardiac arrest if return of spontaneous circulation).
3. Unexplained syncope or near syncope.
4. Unexplained acute generalized weakness with or without diaphoresis.
5. Acute onset of dyspnea suggestive of congestive heart failure.
6. Other signs or symptoms suggestive of acute coronary syndrome.
7. May be considered in patients with stable tachycardia for diagnostic purposes.
8. Any atypical presentation of symptoms that may be a suspected anginal equivalent.

CONTRAINDICATIONS (RELATIVE)

1. Trauma

2. Uncooperative patient

3. Presence of unstable ventricular tachycardia, ventricular fibrillation, or 3rd degree AV block.

PROCEDURE

1. Complete initial assessment and stabilizing treatment

2. Recommend obtaining the ECG as soon as possible and prior to departing the scene.

3. Place precordial lead electrodes and acquire tracing as per manufacturer's directions.

4. Relay ECG interpretation to STEMI ~~Receiving~~ Base Station. Assure that the receiving hospital is advised if machine interpretation is "acute myocardial infarction" or "suspected acute myocardial infarction." Meets STEMI criteria ~~(Exact machine interpretation is required for immediate cath lab activation at the STEMI receiving hospital).~~

5. STEMI Base Station contact must be made in situations where the medic suspects a positive STEMI which is not supported by the ECG interpretation.

6. If defibrillation or synchronized cardioversion are necessary, place paddles or defibrillation electrodes, removing precordial leads if necessary.

7. The paramedic should transmit ECG to the STEMI Receiving Center when available.

DOCUMENTATION

1. Document the performance of 12 lead ECG, the machine interpretation and the paramedic interpretation on pre-hospital care report (PCR).

2. Provide original tracing to receiving hospital. Attach copy of 12 lead to hospital copy, provider copy and EMS copy of PCR.

DATA COLLECTION

In order to continue STEMI quality improvement, the following data elements must be collected on each and every 12 lead ECG performed and provided to the receiving hospital with the patient:

1. A copy of the ePCR or O1A.

a. Patient identifiers

b. Procedure performed (12 lead ECG)

c. Machine, paramedic, and physician interpretations

d. Additional ECG findings

e. Rhythm

2. A copy of the 12 lead ECG.

a. Patient identifiers

b. Date 12 lead ECG performed

c. Time 12 lead ECG performed

SPECIAL CONSIDERATIONS

1. Approximate time to acquire 12 lead should be no longer than three (3) minutes.

2. Perform 12 lead ECG prior to or just as Nitroglycerin is administered as changes in the 12 lead ECG may occur with treatment.

3. 12 lead ECG does not need to be repeated, if originally performed at clinics or other similar settings unless patient's condition changes.

4. Machine interpretation of suspected STEMI may not be accurate in presence of paced rhythms, bundle branch blocks, and certain tachydysrhythmias (e.g., SVT, atrial flutter) or wandering base line. When communicating machine interpretation to base hospital, paramedics should advise base of paced / BBB / tachydysrhythmia rhythms.

INTRAOSSEOUS INFUSION (IO)

FIELD ASSESSMENT/TREATMENT INDICATORS

1. Primary vascular access in cardiac arrest patients eight (8) years of age and younger.

2. Any patient where venous access is unavailable by any other means.

CONTRAINDICATIONS

1. Fracture of target bone.

2. Previous IO attempt and marrow entry at target site.

PROCEDURE

1. Select and prep the following preferred sites for appropriate patient age.

   a. Eight (8) years of age and younger - Anterior medial surface of tibia, 2cm below tibial tuberosity.

   b. ~~b.~~ Nine (9) years of age and older ~~-~~

      i. Lower end of tibia, 2cm above the medial malleous ~~or~~

      ~~i.~~ii. -~~P~~proximal humerus. ~~When approaching from the top, grasp the humeral head between your fingers and thumb. Centrally located between the two should be a prominence that is the greater tuberosity.~~

   c. Base Station contact - Anterior distal femur, 2cm above the patella.

~~2. For agencies utilizing EZIO:~~

- ~~Select the appropriate sized IO needle. Attach the needle to the driver and while stabilizing the extremity, insert the needle through the skin at a 90-degree angle to the bone until the needle touches the bone. Visualize the 5mm mark to assure appropriate needle size. Depress the trigger and insert the needle into the bone. Upon entrance into the medullary cavity, remove the driver from the~~

~~needle, remove stylet and attach primed extension tubing to the hub of the needle.~~

~~3. For agencies utilizing manual devices:~~

- ~~Select appropriate sized IO needle. Apply downward pressure in a twisting motion perpendicular to the surface of the target site. Upon entrance into medullary cavity, slightly advance needle 1-2mm.~~

~~4.~~2. Confirmation of placement is verified by the following:

a. Needle stands upright without support.

b. Aspiration of blood/marrow.

c. Ability to infuse IV solution without s/s of extravasation.

~~c.~~d. Leave site visible

~~5. Leave site uncovered and attach IV extension tubing and IV tubing to IO needle. Hinge tape regular IV tubing to extremity to secure site.~~

3. To control infusion pain on a conscious patient, use 2% Lidocaine.

- Prime the extension tubing with 0.5mg/kg of 2% Lidocaine and infuse *slowly* (over 30 to 60 seconds), not to exceed 50mg total. Allow one (1) minute for anesthetic effect before infusing fluids.

4. Infusion may need to be pressurized using syringe or pressure bag device.

~~8.~~5. Monitor site closely when administering dopamine for signs of extravasation ~~Contact Base Station if patient condition indicates use of Dopamine in patients nine (9) years of age or older.~~

DOCUMENTATION

In the event the receiving physician discovers the device is improperly placed, an Incident Report must be completed by the receiving hospital and forwarded to ICEMA within twenty-four (24) hours of the incident. Forms are available as part of the protocol manual and on the ICEMA website.

EXTERNAL JUGULAR VEIN ACCESS

AUTHORITY

Sections 1797.107, 1797.172 and 1797.176, Health and Safety Code.

Reference: Sections 1797.90, 1797.172, 1797.202, 1797.220, 1798, 1798.2, 1798.3 and 1798.105, Health and Safety Code

FIELD ASSESSMENT/TREATMENT INDICATORS

1. Patient condition requires IV access and other peripheral venous ~~IV~~ access attempts are unsuccessful.

2. Patient 8 years of age and younger - **not indicated**.

PROCEDURE

1. Inform patient of procedure if alert.

2. Utilize axial-spinal stabilization in trauma patients. If not in axial-spinal stabilization, extend and stabilize patient's neck. Maintain axial stabilization if the need to remove C-collar arises.

3. Place in trendelenburg position or apply slight pressure at base of vein for tourniquet effect.

4. Obtain external jugular vein access with appropriately sized IV catheter.

5. Securely tape catheter with occlusive dressing in place and continue to monitor for patency.

6. Recheck site frequently for signs and symptoms of infiltration.

NON-TRAUMATIC HYPERTENSIVE CRISIS

FIELD ASSESSMENT/TREATMENT INDICATORS

1. Headache, blurred vision.
2. Neurological deficit.
3. Altered level of consciousness.
4. Chest pain, dyspnea.
5. Pulmonary edema.
6. Abrupt elevation of diastolic blood pressure.

CONTRAINDICATIONS

Nitroglycerin is contraindicated for use in a hypertensive crisis of unknown etiology.

BLS INTERVENTIONS

1. Reduce anxiety; allow patient to assume position of comfort and elevate head slightly.
2. Administer oxygen as clinically indicated; prepare to support ventilations as clinically indicated.
3. Consider transport to closest hospital or ALS intercept.

ALS INTERVENTIONS

1. Maintain airway with appropriate adjuncts.
2. Obtain oxygen saturation on room air, if possible, unless detrimental to patient condition.
3. Place on cardiac monitor and obtain rhythm strip for documentation. Copy to receiving hospital.
4. Obtain vascular access -- saline lock preferred.
5. Contact Base Station.

DELETE

DETERMINATION OF DEATH ON SCENE

PURPOSE

To identify situations when an EMT~~-I~~ or EMT-P may be called upon to determine death on scene.

POLICY

An EMT~~-I~~ or EMT-P may determine death on scene if **pulselessness and apnea** are present with any of the following criteria. The EMT-P is authorized to discontinue BLS CPR initiated at scene if a patient falls into the category of obvious death. If any ALS procedures are initiated, only the Base ~~Hospital~~ Station physician/designee may determine death in the field. In any situation where there may be doubt as to the clinical findings of the patient, BLS/CPR must be initiated and the Base ~~Hospital~~ Station contacted, per Protocol Reference #12020, Withholding Resuscitate Measures Policy. When death is determined, the County Coroner must be notified along with the appropriate law enforcement agency.

DETERMINATION OF DEATH CRITERIA

1. Decomposition.

2. Obvious signs of rigor mortis such as rigidity or stiffening of muscular tissues and joints in the body, which occurs anytime after death and usually appears in the head, face and neck muscles first.

3. Obvious signs of venous pooling in dependent body parts, lividity such as mottled bluish-tinged discoloration of the skin, often accompanied by cold extremities.

4. Decapitation.

5. Incineration of the torso and/or head.

6. Massive crush injury ~~and/or~~

~~6.~~7. P~~p~~enetrating injury with evisceration of the heart, and/or brain.

~~7.~~8. Gross dismemberment of the trunk.

PROCEDURE

1. If the patient does not meet the Determination of Death criteria~~above criteria for obvious death~~, appropriate interventions must be initiated.

2. Resuscitation efforts shall not be terminated enroute per Government code 27491. The patient will be transported to the closest facility where determination of death will be made by hospital staff.

3. Most victims of electrocution, lightning and drowning should have resuscitative efforts begun and transported to the appropriate Hospital/Trauma Center.

4. Hypothermic patients should be treated per Protocol Reference #13030, Cold Related Emergencies under Severe Hypothermia.

5. A DNR report form must be completed, if applicable per Protocol Reference #12020.

A copy of the patient care record report must be made available for the coroner.

If unable to print a copy of the electronic patient care record a completed *Coroners Worksheet of Death* must be left at the scene. Completed ePCR must be faxed to the Coroner before the end of the shift.

ALS PROCEDURE

1. All patients in ventricular fibrillation should be resuscitated and transported unless otherwise determined by the Base ~~Hospital~~ Station Physician/designee.

2. Traumatic cardiac arrest in the setting of severe blunt force trauma, documented asystole in at least two (2) leads and no reported v~~V~~ital signs (palpable pulses and/or spontaneous respirations) during EMS encounter with the patient meet Determination of Death Criteria.

3. All terminated ALS resuscitation efforts must have an ECG attached to the patient care record report.

4. All conversations with the Base ~~Hospital~~ Station must be fully documented with the name of the Base ~~Hospital~~ Station Physician who determined death, times and instructions on the patient care record report.

WITHHOLDING RESUSCITATIVE MEASURES

PURPOSE

To establish criteria for withholding resuscitative measures from person(s) who do not otherwise meet the "Determination of Death" criteria in the prehospital setting and/or during interfacility transport.

AUTHORITY

Division 2.5, Sections 1797.220 and 1798 of the California Health and Safety Code.

POLICY

The DNR only applies to cardiopulmonary resuscitative measures. An order not to resuscitate is not an order to withhold other necessary medical treatment or nutrition. The treatment given to a patient with a DNR agreement should in all respects be the same as that provided to a patient without such an agreement.

DEFINITIONS

Do Not Resuscitate (DNR): A written order by a physician or the presence of a DNR medallion/bracelet or necklace indicating that an agreement has been reached between the physician and patient/or surrogate that in the event of cardiac or respiratory arrest the following medical interventions will **NOT** be initiated:

1. Chest compressions,
2. Defibrillation,
3. Endotracheal intubation,
4. Assisted ventilation,
5. Cardiotonic drugs, e.g., epinephrine, atropine or other medications intended to treat a non-perfusing rhythm.

Absent vital signs: Absence of respiration and absence of carotid pulse.

DNR medallion/bracelet/necklace: A medallion/bracelet/necklace worn by a patient, which has been approved for distribution by the California Emergency Medical Services Authority (EMSA).

Prehospital DNR form: Form developed by the California Medical Association (CMA) for use statewide for prehospital DNR requests. This form has been approved by EMSA and ICEMA. This form should be available to prehospital personnel in the form of the white original DNR form or as a photocopy. The original or copy of the DNR form will be taken with the patient during transport. **The DNR form shall not be accepted if amended or altered in any way.**

Prehospital Personnel: Any EMS field responder currently certified and/or accredited in San Bernardino, Inyo or Mono Counties.

Physician Orders for Life-Sustaining Treatment (POLST): A physician's order that outlines a plan of care reflecting the patient's wishes concerning care at life's end. The POLST form is voluntary and is intended to assist the patient and their family with planning and developing a plan to reflect the patient's end of life wishes. It is also intended to assist physicians, nurses, health care facilities and emergency personnel in honoring a person's wishes for life-sustaining treatment.

VALIDATION CRITERIA

1. **Statewide Prehospital DNR Form** ~~(Appendix A)~~ should include the following to be considered valid:

    a. Patient's name.

    b. Signature of the patient or a legal representative if the patient is unable to make or communicate informed health care decisions.

    c. Signature of patients' physician, affirming that the patient/legal representative has given informed consent to the DNR instruction.

    d. All signatures are to be dated.

    e. Correct identification of the patient is crucial. If the patient is unable to be identified after a good faith attempt to identify the patient, a reliable witness may be used to identify the patient.

2. **DNR medallion/bracelet/necklace**: The DNR medallion/bracelet/necklace is made of metal with a permanently imprinted medical insignia. For the medallion or bracelet/necklace to be valid the following applies:

a. Patient must be physically wearing the DNR medallion/bracelet/necklace.

b. Medallion/bracelet/necklace must be engraved with the words "Do Not Resuscitate EMS", along with a toll free emergency information telephone number and a patient identification number.

3. **Physician DNR orders**: In licensed health care facilities a DNR order written by a physician shall be honored. The staff must have the patient's chart with the DNR order immediately available for EMS personnel upon their arrival.

4. **POLST**: The POLST form must be signed and dated by a physician. **Without this signature, the form is invalid.** Verbal or telephone orders are valid if allowed by the institution or facility. There should be a box checked indicating who the physician discussed the POLST orders with. By signing the form, the physician acknowledges that these orders reflect the wishes of the patient or designated decision maker.

5. Advanced Directives that include a signed DNR or POLST form

PROCEDURE

1. EMS personnel shall validate the DNR request or POLST form.

2. BLS personnel shall continue resuscitative measures if a DNR or POLST cannot be validated.

3. ALS personnel shall contact a Base ~~Hospital~~ Station for direction if a DNR or POLST cannot be validated. While ALS personnel are contacting the Base ~~Hospital~~ Station for direction, BLS treatment must be initiated. If contact cannot be made, resuscitative efforts shall continue.

4. If a patient states he/she wishes resuscitative measures, the request shall be honored.

5. If a family member requests resuscitative measures despite a valid DNR or POLST, continue resuscitative measures until Base ~~Hospital~~ Station contact is made.

6. If patient is not in cardiac arrest and has a valid POLST form, EMS may provide comfort measures as described in section B of the form.

7. The patient shall be transported to the hospital if comfort measures are started by EMS.

8. Any questions about transporting the patient will be directed to the base station.

9. If a patient expires at home, law enforcement must be notified.

10. If a patient expires in a licensed health care facility, the facility has the responsibility to make the appropriate notification.

11. All circumstances surrounding the incident shall be documented on the patient care record. If prehospital personnel are unable to copy the DNR or POLST form the following shall be documented on the patient care record:

    a. Presence of DNR or POLST form.

    b. Date of order.

    c. Name of physician who signed form.

~~12. A copy of the patient care report and DNR or POLST must be forwarded to ICEMA within one (1) week by either the PLN at the receiving facility if it is a Base Hospital or by the EMT-P's Agency EMS/QI Coordinator.~~

SUPPORTIVE MEASURES

1. Medical interventions that may provide for the comfort, safety and dignity of the patient should be utilized.

2. The patient should receive palliative treatment for pain, dyspnea, major hemorrhage or other medical conditions.

3. Allow any family members/significant others to express their concerns and begin their grieving process.

4. Unless a patient is actively dying, medical treatment for other conditions should not be withheld.

POISONINGS

PRIORITIES

1. Assure the safety of EMS personnel.

2. Assure and maintain ABCs.

3. Determine degree of physiological distress.

4. Obtain vital signs, history and complete physical assessment including the substance ingested, the amount, the time substance was ingested and the route.

5. Bring ingested substance to the hospital with patient.

6. Expeditious transport.

FIELD ASSESSMENT/TREATMENT INDICATORS

1. Altered level of consciousness.

2. Signs and symptoms of substance ingestion, inhalation, injection or surface absorption.

3. History of substance poisoning.

DEFINITIVE CARE

1. Assure and maintain ABCs.

2. Place patient on high flow oxygen as clinically indicated.

3. Contact poison control (1-800-222-1222).

4. Obtain accurate history of incident:

    a. Name of product or substance.

    b. Quantity ingested, and/or duration of exposure.

    c. Time elapsed since exposure.

d. Pertinent medical history, chronic illness, and/or medical problems within the last twenty-four (24) hours.

e. Patient medication history.

5. Monitor vital signs.

6. Expeditious transport.

PARAMEDIC SUPPORT PRIOR TO BASE STATION CONTACT

1. Assure and maintain ABC's.

2. Oxygen therapy as clinically indicated, obtain oxygen saturation on room air, unless detrimental to patient condition.

3. Monitor cardiac status.

4. Obtain vascular access at a TKO rate or if hypotensive administer 500cc fluid challenge to sustain a systolic B/P greater than 90mmHg.

5. For pediatric patients with a systolic B/P less than 80mmHg give 20cc/kg IVP and repeat as indicated.

6. For phenothiazine "poisoning", administer diphenhydramine 25mg IVP or 50mg IM for ataxia and/or muscle spasms.

~~5. Charcoal 50gms for adult (pediatrics 1gm/kg). Administer P.O. if alert with a gag reflex. Charcoal is contraindicated with caustic ingestions.~~

7~~6~~. For known organophosphate poisoning, give atropine 2mg IVP, repeat at 2mg increments if patient remains symptomatic (ie: excessive salivation, lacrimation, urination, diarrhea, vomiting, constricted pupils).

BASE STATION MAY ORDER THE FOLLOWING

~~*1. For phenothiazine "poisoning", administer diphenhydramine 25mg IVP or 50mg IM for ataxia and/or muscle spasms.~~

*1~~2~~. For tricyclic poisonings, administer sodium bicarbonate 1mEq/kg IVP for tachycardia, widening QRS or ventricular arrhythmias.

*2~~3~~. For calcium channel blocker poisonings, administer calcium chloride 1gm (10cc of a 10% solution), if hypotension or bradycardic arrhythmias persist.

*3~~4~~. For betablocker poisonings, administer glucagon 1mg IVP.

*4~~5~~. Repeat atropine in 2 - 4mg increments until symptoms are controlled.

*May be done during radio communication failure.

HEAT RELATED EMERGENCIES

MINOR HEAT ILLNESS SYNDROMES

FIELD ASSESSMENT/TREATMENT INDICATORS

1. ~~1.~~ Environmental conditions.
2. Increased skin temperature
3. Increased body temperature
4. General weakness
5. ~~1.~~ Muscle cramps

HEAT EXHAUSTION (Compensated)

1. All or some of the symptoms above
2. Elevated temperature
3. Vomiting
4. Hypotension
5. Diaphoresis
6. Tachycardia
7. Tachypnea

HEAT STROKE (Uncompensated)

1. All or some of the symptoms above
2. Hyperthermia
3. ALOC or other signs of Central nervous system dysfunction
4. Absence or decreased sweating

5. Tachycardia

6. Hypotension

~~2. Postural hypotension.~~

~~3. Dehydration.~~

~~4. Heat cramps.~~

BLS INTERVENTIONS

1. Remove patient from heat source, place in a position of comfort ~~with legs elevated~~ and begin cooling measures.

2. Oxygen as clinically indicated.

3. Rehydrate with small amounts of appropriate liquids as tolerated.

4. Axial-spinal stabilization if indicated.

HEAT EXHAUSTION

FIELD ASSESSMENT/ TREATMENT INDICATORS

1. Dehydration.

2. Elevated temperature, vomiting, hypotension, diaphoresis, tachycardia and tachypnea.

3. No change in LOC.

BLS INTERVENTIONS

1. Remove patient from heat source, position with legs elevated and begin cooling measures.

2. Oxygen as clinically indicated.

3. Rehydrate with small amounts of appropriate liquids as tolerated. Do not give liquids if altered level of consciousness.

4. If patient has signs of Heat Stroke begin rapid cooling measures including cold packs placed adjacent to large superficial vessels.

~~3.~~5. Evaporative cooling measures.

~~Axial spinal stabilization if indicated.~~

ALS INTERVENTIONS

1. Obtain vascular access.

   a. Adult: Fluid bolus with ~~3~~500cc NS. Reassess and repeat fluid bolus if BP remains less than 90mmHg.

   b. Pediatric patients less than nine (9) years of age: Initial 20cc/kg IV/IO bolus; may repeat until palpable pulse obtained.

2. Assess~~Obtain~~ blood glucose and provide treatment as clinically indicated.

3. Base Station may order additional medication dosages and additional fluid boluses.

~~**HEAT STROKE**~~

~~**FIELD ASSESSMENT/ TREATMENT INDICATORS**~~

~~1. Hyperthermia.~~

~~2. ALOC or other signs of central nervous system dysfunction.~~

~~3. Absence or presence of sweating.~~

~~4. Tachycardia, Hypotension.~~

~~**BLS INTERVENTIONS**~~

~~1. Remove from heat source, position with legs elevated and begin cooling measures.~~

~~2. Rapid cooling measures including cold packs placed adjacent to large superficial vessels.~~

~~3. Evaporative cooling measures. Avoid oral intake if patient has altered level of consciousness.~~

~~4. Oxygen as clinically indicated.~~

~~**ALS INTERVENTIONS**~~

~~1. Obtain vascular access.~~

~~a. Adult: Fluid bolus with 300cc NS. Reassess and repeat fluid bolus if BP remains less than 90mmHg.~~

~~b. Pediatric patients less than nine (9) years of age: Initial 20cc/kg IV/IO bolus; may repeat until palpable pulse obtained.~~

~~2. Obtain blood glucose and provide treatment as clinically indicated.~~

~~3.~~4. ~~3.~~ Obtain rhythm strip for documentation with copy to receiving hospital.

5. For tonic/colonic type seizure activity in adults administer:

a. Midazolam 5mg IM/IN or 2.5 mg IV/IO/IN

b. May repeat Midazolam for extended or recurrent seizure activity every 10 minutes as needed.

6. For tonic/colonic type seizure activity in pediatrics administer:

For seizure activity, administer Midazolam 0.2mg/kg IM/IN with maximum IM/IN dose of 5 mg or 0.1 mg/kg IV/IO with maximum dose 2.5 IV/IO. May repeat Midazolam every 10 minutes if necessary not to exceed adult dosage
~~Seizure precautions refer to Protocol Reference #11080, Altered Level of Consciousness/Seizures, or Protocol Reference #14060, Pediatric Seizure, if seizures occur.~~

~~4. Contact Base Station for destination and further treatment orders.~~

COLD RELATED EMERGENCIES

~~SUSPECTED FROSTBITE~~

FIELD ASSESSMENT/TREATMENT INDICATORS

MILD HYPOTHERMIA

1. Decreased core temperature.

2. Cold, pale extremities.

3. Shivering, reduction in fine motor skills.

4. Loss of judgment and/or altered level of consciousness or simple problem solving skills.

SEVERE HYPOTHERMIA

1. Severe cold exposure or any prolonged exposure to ambient temperatures below 36 degrees with the following indications:

   a. Altered LOC with associated behavior changes.

   b. Unconscious.

   c. Lethargic.

2. Shivering is generally absent.

3. Blood pressure and heart sounds may be unobtainable.

SUSPECTED FROSTBITE

1. Areas of skin that are cold, white, and hard to touch.

2. Capillary refill greater than two (2) seconds.

3. Pain and/or numbness to affected extremity.

BLS INTERVENTIONS

1. Remove from cold/wet environment; remove wet clothing and dry patient.

2. Begin passive warming

3. Insulate and apply wrapped heat packs, if available, to groin, axilla and neck. This process should be continuous.

4. Maintain appropriate airway with oxygen as clinically indicated (warm, humidified if possible).

5. Assess carotid pulse for a minimum of 1-2 minutes. If no pulse palpable, place AED if available, per Protocol Reference #10130. If no shock advised, begin CPR.

6. Insulate to prevent further heat loss.

7. Elevate extremity if frostbite is suspected

8. Do not massage affected extremity

9. Wrap affected body part in dry sterile gauze to prevent further exposure and handle with extreme care.

~~1. Elevate extremity.~~

~~2. Do not rub or otherwise attempt active warming.~~

~~3. Protect affected body part from further exposure by wrapping in dry sterile gauze.~~

ALS INTERVENTIONS

1. Obtain vascular access.

2. Cardiac Monitor.

~~1.~~3. Consider blood glucose determination and provide treatment as clinically indicated

~~2.~~4. For complaints of pain in affected body part:

   a. Pediatric – Morphine Sulfate 0.1 mg/kg IV not to exceed 2mg increments, for a total of 5mg or Morphine Sulfate 0.2mg/kg IM, for a total of 10mg IM, titrated for pain relief.

b. Adult – Morphine Sulfate 2mg IV, may repeat in 2mg increments, not to exceed 10mg IV, or Morphine Sulfate 10mg IM may repeat IM dosage one time for pain relief.

~~Base Station may order additional medication doses.~~

~~3.~~5. In Radio Communication Failure, the EMT-P may administer a repeat dosage of Morphine Sulfate.

6. Advanced airway as clinically indicated.

7. Obtain vascular access and administer fluid bolus.

a. Nine (9) years and older: 300ml warmed NS, may repeat.

b. Birth to eight (8) years: 20ml/kg warmed NS, may repeat.

8. Obtain rhythm strip for documentation.

9. For documented VF, Pulseless V-Tach:

Defibrillate one (1) time at manufacturer recommended dose. Do not defibrillate again until patient has begun to warm.

10. For documented asystole:

a. Begin CPR.

b. May give additional fluid bolus

11. Contact Base Station.

~~**MILD HYPOTHERMIA**~~

~~**FIELD ASSESSMENT/TREATMENT INDICATORS**~~

~~1. Decreased core temperature.~~

~~2. Cold, pale extremities.~~

~~3. Shivering, reduction in fine motor skills.~~

~~4. Loss of judgment and/or altered level of consciousness or simple problem solving skills.~~

~~BLS INTERVENTIONS~~

~~1. Oxygen as clinically indicated.~~

~~2. Remove from cold/wet environment; remove wet clothing and dry patient.~~

~~3. Insulate and apply wrapped heat packs, if available, to groin, axilla and neck. This process should not be interrupted during transport.~~

~~ALS INTERVENTIONS~~

~~4. Obtain vascular access.~~

~~5. Cardiac Monitor.~~

~~6. Consider blood glucose determination and provide treatment as clinically indicated.~~

~~SEVERE HYPOTHERMIA~~

~~FIELD ASSESSMENT/TREATMENT INDICATORS~~

~~1. Severe cold exposure or any prolonged exposure to ambient temperatures below 36 degrees with the following indications:~~

~~a. Altered LOC with associated behavior changes.~~

~~b. Unconscious.~~

~~c. Lethargic.~~

~~2. Shivering is generally absent.~~

~~3. Blood pressure and heart sounds may be unobtainable.~~

~~BLS INTERVENTIONS~~

~~1. Maintain appropriate airway with oxygen as clinically indicated (warm, humidified if possible).~~

~~2. Assess carotid pulse for a minimum of 1-2 minutes. If no pulse palpable, place AED if available, per Protocol Reference #10130. If no shock advised, begin CPR.~~

~~3. Insulate to prevent further heat loss.~~

~~4. Gently cut away wet clothing if transport time is greater than 30 minutes.~~

~~**ALS INTERVENTIONS**~~

~~7. Advanced airway as clinically indicated.~~

~~2. Obtain vascular access and administer fluid bolus.~~

~~a. Nine (9) years and older: 300ml warmed NS, may repeat.~~

~~b. Birth to eight (8) years: 20ml/kg warmed NS, may repeat.~~

~~3. Obtain rhythm strip for documentation.~~

~~8. For documented VF, Pulseless V-Tach:~~

~~a. Defibrillate one (1) time at 2j/kg or 200 joules.~~

~~b. For agencies using bi-phasic technology, follow manufacture's guidelines.~~

~~9. For documented asystole:~~

~~a. Begin CPR.~~

~~b. May give additional fluid bolus~~

~~10. Contact Base Station.~~

AIRWAY OBSTRUCTION - PEDIATRIC
(Less than 15 years of age)

FIELD ASSESSMENT/TREATMENT INDICATORS

1. Universal sign of distress.

2. Sudden ~~A~~alteration in respiratory effort or signs of obstruction ~~-~~ coughing, gagging, stridor, wheezing, or~~drooling, grunting~~, apnea.

3. Altered level of consciousness (for younger children this is measured by the inability to recognize caregiver, no aversion to being cared for by EMS personnel, limp and/or ineffective cry).

BLS INTERVENTIONS - RESPONSIVE

1. Assess for ability to cry, speak or cough (e.g. "Are you choking?").

2. Administer abdominal thrusts (~~up to~~repeated cycles of five (5) back slaps and five (5) chest thrusts for infant less than one (1) year), until the foreign body obstruction ~~becomes~~ is relieved or until patient becomes unresponsive.

3. After obstruction is relieved, reassess and maintain ABC's.

4. Administer oxygen; if approved, obtain O2 saturation, per Protocol Reference #10170, Pulse Oximetry.

5. If responsive, place in position of comfort, enlisting help of child's caregiver if needed. If child is uninjured but unresponsive with adequate breathing and a pulse, place in recovery position.

BLS INTERVENTIONS - UNRESPONSIVE

1. Position patient supine (for suspected trauma maintain in-line axial stabilization). Place under-shoulder support to achieve neutral cervical spinal position if indicated.

2. Begin CPR, starting with thirty (30) compressions.

~~2.~~3. Open airway using the ~~,~~ head tilt-chin lift method(for suspected trauma, use jaw thrust). ~~-~~R~~r~~emove object if visible. ~~Assess for presence/effectiveness of respirations for no more than ten (10) seconds.~~

3.4. If apneic, attempt two (2) ventilations with bag-valve mask. Release completely, allow for exhalation between breaths. If no chest rise or unable to ventilate, reposition airway and reattempt.continue cycles of thirty (30) compressions to two (2) ventilations until obstruction is relieved or able to ventilate.

4.5. If apneic and able to ventilate, provide 1 breath every three (3) to five (5) seconds. Confirm that pulses are present and reassessCheck pulse every two (2) minutes.

5.6. If unable to ventilate, check for pulse then initiate CPR according to AHA 2005 guidelines and check for pulse every two (2) minutes until obstruction is relieved or able to ventilate.

6.7. If available, place AED per Protocol Reference #10130, AED.

ALS INTERVENTIONS

1. If apneic and able to ventilate, consider intubation per Protocol Reference #10040, Oral Endotracheal Intubation – Pediatric.

2. If obstruction persists and unable to ventilate, visualize with laryngoscope and remove visible foreign body with Magill forceps and attempt to ventilate.

3. If obstruction persists and patient older than two (2) years, consider Needle Cricothyrotomy per Protocol Reference #10070, Needle Cricothyrotomy.

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

FIELD ASSESSMENT/TREATMENT INDICATORS

Cardiac arrest in a non-traumatic setting. Consider the potential causes of arrest for age.

BLS INTERVENTIONS

1. Assess patient, maintain appropriate airway, begin CPR according to current AHA Guidelines.

   a. Ventilate at rate of 12 to 20 per minute. Ventilatory rate will decrease as patient age increases. Ventilatory volumes shall be the minimum necessary to cause chest rise.

   b. Compression rate shall be a minimum of 100 per minute.

2. If patient one (1) year of age or older, utilize AED per Protocol Reference #10130 AED.

ALS INTERVENTIONS

1. Initiate CPR ~~for 2 minutes if no CPR was performed prior to arrival and down time is greater than 5 minutes~~ while applying the cardiac monitor.

2. Determine the cardiac rhythm and defibrillate at 2J/kg (or manufacturer's recommended equivalent) if indicated. Begin a two minute cycle of CPR.

3. Obtain IO/IV access (IO is preferred).

4. ~~2.~~ Establish advanced airway when resources are available, with minimal interruption to CPR. After advanced airway established, insert NG/OG tuber. Continue CPR with compressions~~compressions would then be continued at~~ at a minimum of 100/min ~~per minute~~ without pauses during ventilations. Ventilations should be given at a rate of one (1) breath every six (6) to eight (8) seconds. ~~Give 8 to 10 breaths per minute.~~

~~2.~~5. Utilize continuous quantitative waveform capnography, if available, for confirmation and monitoring of endotracheal tube placement and for assessment of ROSC.

3. Determine cardiac rhythm, proceed to appropriate intervention:

Ventricular Fibrillation/Pulseless Ventricular Tachycardia

1. Initial defibrillation is administered at 2j/kg (or manufacturer's recommended equivalent). Second defibrillation is administered at 4J/kg. Third and sSubsequent defibrillation attempts should be administered at a minimum of 4J/kg up to a maximum of 10J/kg. do not exceed 200joules for monophasic or biphasic equivalent per manufacture. WILL FOLLOW UP TO DETERMINE IF WE SHOULD HAVE A THIRD DOSE PRESET.

2. Perform CPR for two (2) minutes after each defibrillation, without delaying to assess the post-defibrillation rhythm.

3. Administer Epinephrine (1:10,000) during each two (2) minute cycle of CPR after each defibrillation unless capnography indicates possible ROSC.

   a. 1 day to 8 years: 0.01mg/kg IO/IV (do not exceed adult dosage).

   b. 9 to 14 years: 1.0mg IV/IO.

4. Reassess rhythm after each two (2) minute cycle of CPR. If VF/VT persists, defibrillate as indicated above. for 2nd and subsequent shocks defibrillate at 4j/kg, do not exceed 360 joules (or biphasic equivalent).

5. After two (2) cycles of CPR, consider administering Lidocaine;

   a. 1 day to 8 years: 1mg/kg IO/IV.

   b. 9 to 14 years: 1mg/kg IV/IO.

6. May repeat Lidocaine at 0.5mg/kg after five (5) minutes up to total of 3.0 mg/kg.

7. If patient remains in pulseless VF/VT after five cycles of CPR, consult base station.

Pulseless Electrical Activity/Asystole

1. Assess for reversible causes and initiate treatment.

2. Continue CPR with evaluation of rhythm every two (2) minutes.

3. Administer initial fluid bolus of 20 ml/kg for all ages, may repeat at;

   a. 1 day to 8 years: 20 ml/kg.

b. 9 to 14 years: 300 ml.

4. Administer Epinephrine (1:10,000) during each two (2) -minute cycle of CPR after each rhythm evaluation.

   a. 1 day to 8 years: 0.01mg/kg IO/IV.

   b. 9 to 14 years: 1.0mg IV/IO.

5. For patients 9 to 14 years Atropine 1.0mg may be given every 5 minutes, to maximum of 3mg.

6. Consider termination of efforts if patient remains in asystole or PEA after successful intubation and initial medications without a reversible cause identified.

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

1. Whenever possible, provide family members with the option of being present during the resuscitation of an infant or a child. For any termination of efforts, base hospital contact is required.

1. Insert NG/OG Tube to relieve gastric distention if the patient has been intubated with an advanced airway, per Protocol Reference #10080. Vascular access

   a. 1 day to 8 years: IO preferred per Protocol Reference #10140 Intraosseous Infusion.

   b. 9 to 14 years: IV/IO.

May initiate second IV/IO if indicated.

2. For continued signs of inadequate tissue perfusion, Aadminister fluid bolus., Reassess after each bolus. Mmay repeat twice for continued signs of inadequate tissue perfusion. In RCF, may give two (2) additional fluid boluses if indicated.

   a. 1 day to 8 years: 20 ml/kg NS evaluate after each bolus.

   b. 9 to 14 years: 300 ml NSInitial bolus at 20ml/kg NS subsequent boluses at 300ml NS evaluate after each bolus.

In RCF may give 2 additional fluid boluses if indicated.

3. Obtain blood glucose., Iif indicated administer Dextrose according to Protocol Reference #14050 Pediatric Altered Level of Consciousness.

4. Insert Nasogastric/Orogastric tube per Protocol Reference #10080, Insertion of Nasogastric/Orogastric Tube.

45. Naloxone for suspected opiate overdose;, may repeat once as clinically indicated.

   a. 1 day to 8 years: 0.1 mg/kg IO/IV. Do not exceed adult dosage.

   b. 9 to 14 years: 2mg IV/IO.

NOTE

5. If ROSC is achieved, obtain a 12-lead EKG.

3.6. Utilize continuous waveform capnography, if available, to identify loss of circulation.

4.7. For continued signs of inadequate tissue perfusion **after** successful resuscitation;

   a. 1 day to 8 years: Epinephrine (1:10,000) 0.5 mcg/kg/min IO/IV push?????

   b. 9 to 14 years: Dopamine 400mg in 250ml of NS to infuse at 5-20 mcg/kg/min IV titrated to maintain signs of adequate tissue perfusion.

5.8. Base hospital station physician may order additional medications or interventions as indicated by patient condition.

1. For continued signs of inadequate tissue perfusion **after** successful resuscitation;

a. 1 day to 8 years: Epinephrine (1:10,000) 0.005mg/kg IO/IV every ten (10) minutes.

b. 9 to 14 years: Dopamine 400mg in 250ml of NS to infuse at 5-20 mcg/kg/min IV titrated to maintain signs of adequate tissue perfusion.

2. Base hospital physician may order additional medications or interventions as indicated by patient condition.

~~3. Base hospital contact is required to terminate resuscitative measures. A copy of the EKG should be attached to the PCR for documentation purposes.~~

NEWBORN CARE

FIELD ASSESSMENT/TREATMENT INDICATORS

Field delivery with or without complications.

BLS INTERVENTIONS

1. When head is delivered, suction mouth then the nose, and check to see that cord is not around baby's neck.

2. Dry infant and provide warm environment. Prevent heat loss (remove wet towel).

3. Place baby in supine position at or near the level of the mother's vagina. After pulsation of cord has ceased double clamp cord at approximately 7" and 10" from baby and cut between clamps.

4. Maintain airway, suction mouth and nose.

5. Provide tactile stimulation to facilitate respiratory effort.

6. Assess breathing if respirations <20 or gasping, provide tactile stimulation and assisted ventilation if indicated.

7. Circulation:

   a. Heart Rate <100 ventilate BVM with 100% O2 for 30 seconds and reassess. ~~Repeat if HR remains <100.~~ If heart rate is still <100/min, begin CPR with ventilations at a 3:1 ratio of compressions to ventilations (approximately 90 compressions and 30 ventilations/min).

   b. Heart Rate <60 begin chest compressions as outlined above until heart rate is ≥ 100. ~~(rate 120 times/min) and provide BVM ventilation at a rate of 40-60 breaths/min with 100% O2,~~ R~~r~~eassess.

   c. If available, utilize Quantitative Waveform Capnography to assess efficacy of comressions and ventilations.

8. If ~~C~~central cyanosis is present, utilize supplemental O2 at 10 to 15L/min using oxygen tubing close to infant's nose and reassess. If no improvement is noted after thirty (30) seconds assist ventilation with BVM

9. Obtain Apgar scoring at one (1) and five (5) minutes. Do not use Apgar to determine need to resuscitate.

APGAR SCORE

SIGN	0	1	2
Heart Rate	Absent	< 100/minute	> 100/minute
Respirations	Absent	<20/irregular	>20/crying
Muscle Tone	Limp	Some Flexion	Active Motion
Reflex Irritability	No Response	Grimace	Cough or Sneeze
Color	Blue or pale	Blue Extremities	Completely Pink

ALS INTERVENTIONS

1. Obtain vascular access via IV/IO if indicated.

2. Consider advanced airway per Protocol Reference #10040 if BVM is ineffective or tracheal suctioning is required. Place orogastric tube after advanced airway is in place. Reassess placement after every intervention.

~~Epinephrine 0.01mg/kg IV/IO (1:10,000) or if Heart Rate <60 after one (1) minute~~.

~~Place Orogastric tube if positive pressure ventilation is used >2 minutes.~~

3. Obtain Blood Glucose by heel stick, if ~~<40~~<35 hypoglycemic, -give D25 0.5gms/kg IV. ~~WILL FOLLOW UP TO CONFIRM WHAT NUMBER SHOULD BE UTILIZED PER PEDIATRIC SPECIALISTS.~~

4. Evaluate airway for hypoxemia and body temperature then consider Epinephrine 0.01mg/kg IV/IO (1:10,000) if Heart Rate <60 after one (1) minute.

~~3.~~5. Contact Base Station if hypovolemia is suspected. Base Station may order 10~~-20~~ml/kg IV NS over 5 minutes. If unable to contact Base Station and transport time is extended give 10ml/kg IV NS over 5 minutes, may repeat.

6. For persistent hypotension despite adequate ventilation and fluid resuscitation, Base Station may order Epinephrine 0.005mg/kg (1:10,000) IV/IO every 10 minutes. If unable to contact Base Station and transport time is extended give indicated dosage and contact Base Station as soon as possible~~.??? WILL FOLLOW UP TO CONFIRM WHAT THE APPROPRIATE DOSE SHOULD BE BASED ON PALS REVISIONS~~ (PALS dose is >0.003mg/kg (1:10,000) IV/IO for pressor dosage. No change to above dosage.

PROTOCOLS FOR PUBLIC COMMENT
Protocol Reference #'s:
7010, 7020, 9120, 10010, 10020, 10030, 10050, 10080, 10090, 10100, 10140, 10150, 11030, 12010, 12020, 13010, 13020, 13030, 14020, 14040 and 14090
DUE: July 13, 2012 at 5 p.m.

PROTOCOL #	AGENCY	COMMENT	RESPONSE
	AMR	Looks good no changes.	
	SACH	Everything looks good to me, I am glad we have removed the charcoal as it was a problem in a Tylenol overdose call taken this week. Sara Evans	
7010	San Manuel FD	Agree with removal of charcoal, option of 500cc N/S bags, removal of container type for narcotics, addition of stylet with ETT, removal of patient sizes on King LTS-D, PEDS electrode removal, EZ-IO changes, Monitor changes, suction canister size removal, Blood-Y removal, All optional equipment changes, and Triage tag number changes. SUGGEST Changing: IO NEEDLES - sizes 16 and 18 gauge to: *IO NEEDLES Adult and Pediatric.*	Agree to make change.
7020	San Manuel FD	Agree with all.	
9120	San Manuel FD	Agree	
10010	San Manuel FD	Agree	
10020	San Manuel FD	Agree	
10030	San Manuel FD	Agree especially with addition of capnography.	
10050	San Manuel FD	Disagree with absolute contraindications #2. Remove Failed CPAP. This is an indication for NTI not a contraindication. Disagree with Relative Contraindications addition of suspected airway burns. There are many cases where NTI is the only way to secure the airway in a burned and edematous inhalation burn. Agree with BAAM and capnography changes.	Will move Failed CPAP to Relative Contraindications. No change to suspected airway burns.
10080	San Manuel FD	Agree	
10090	San Manuel FD	Agree	

PROTOCOLS FOR PUBLIC COMMENT
Protocol Reference #'s:
7010, 7020, 9120, 10010, 10020, 10030, 10050, 10080, 10090, 10100, 10140, 10150, 11030, 12010, 12020, 13010, 13020, 13030, 14020, 14040 and 14090
DUE: July 13, 2012 at 5 p.m.

PROTOCOL #	AGENCY	COMMENT	RESPONSE
10100	San Manuel FD	Agree	
10140	San Manuel FD	Agree	
10150	San Manuel FD	Agree	
11030	San Manuel FD	Agree with removal (basic patient care covers it)	
12010	San Manuel FD	Agree	
12020	San Manuel FD	Agree	
13010	San Manuel FD	Agree with most changes. PARAMEDIC SUPPORT PRIOR TO BASE STATION CONTACT#5 Suggest changing B/P less than 80 to Signs of inadequate tissue perfusion. Then end sentence with repeat until tissue perfusion improves.	Agree with changing sentence but will also have to change number 4 Adult to match.
13020	San Manuel FD	Agree with changes	
13030	San Manuel FD	Agree	
14020	San Manuel FD	Agree	
14040	San Manuel FD	Typo ALS INERVENTIONS #4 insert NG/OG tube. Agree with all, especially the use of capnography to determine ROSC, and 12-lead post ROSC.	Agree to make the change.
14090	San Manuel FD	Agree	

PROTOCOLS FOR PUBLIC COMMENT
Protocol Reference #'s:
7010, 7020, 9120, 10010, 10020, 10030, 10050, 10080, 10090, 10100, 10140, 10150, 11030, 12010, 12020, 13010, 13020, 13030, 14020, 14040 and 14090
DUE: July 13, 2012 at 5 p.m.

PROTOCOL #	AGENCY	COMMENT	RESPONSE
7010	Ontario FD	Should give some guidelines for Midazolam. Either carry 5 mg or 10 mg. For Manual IO Needles - sizes should be listed. Some agencies still do not carry EZ IO so if this is an "either or" then it would be helpful to put the sizes back in for the manual needles. Would EMS Tourniquet be better than Medical Tourniquet? Medical tourniquets include those for IV starts and other non EMS uses.	Due to the current drug shortage issues we do not wish to limit the ability to purchase Midazolam. See above, will change verbiage to specify Adult or Pediatric sizes. Agree EMS tourniquets are specific for hemorrhages and do not include IV start tourniquets; will make the change.
9120	Ontario FD	Good	
10010	Ontario FD	Both Epiglottitis and Airway burns are difficult to diagnose in the field. Possible add "patient presenting with signs/symptoms of epiglottitis and suspected airway burns" - also you already cover most of these patients with your first contraindication of conscious patient with an intact gag reflex.	
10030	Ontario FD	Nice additions.	
10050	Ontario FD	Curious for rational for Failed CPAP being an absolute contraindication of nasotracheal intubation. For letter h. on page two - possibly add the word 'waveform" before capnography and capnometry. Please address how to push the Lidocaine SIVP under procedure.	See comment above. Agree to add waveform. Lidocaine is an educational point.
10080	Ontario FD	Nice additions	

PROTOCOLS FOR PUBLIC COMMENT
Protocol Reference #'s:
7010, 7020, 9120, 10010, 10020, 10030, 10050, 10080, 10090, 10100, 10140, 10150, 11030, 12010, 12020, 13010, 13020, 13030, 14020, 14040 and 14090
DUE: July 13, 2012 at 5 p.m.

PROTOCOL #	AGENCY	COMMENT	RESPONSE
10090	Ontario FD	Under relative contraindication - Suspected STEMI makes senses or ECG with ST elevation makes sense. Suspected STEMI ECG? Maybe reword for clarification.	Agree to make change.
10100	Ontario FD	Good protocol	
10140	Ontario FD	Cleaned up nice with language removed; however, I still think we need to have some documents with this teaching information included in it for new medics and for skills day testing.	
10150	Ontario FD	Good	
12010	Ontario FD	Good	
12020	Ontario FD	Please address the Medical Durable Power of Attorney in this protocol since we have had a couple of issues with this.	This will be an educational piece.
13010	Ontario FD	Good	
13020	Ontario FD	I like the new format makes it much easier. Please clarify the fluid bolus. Will it be given not matter what or only if BP less than 90mmHg. It states to reassess and repeat if BP remains less than 90mmHg? This imply you would not give initial unless the BP was less than 90mmHg. Re-phrase to match the Peds verbiage - may repeat if BP is less than 90 mmHg. Under the Versed dosages #6 add "mg" after 2.5 for maximum dose.	 This statement will be clarified, see answer above. Agree to make change.
13030	Ontario FD	Please give rational why heat related emergencies get 500 ml but cold related emergencies still only get 300 ml. These differences seem slight but make errors.	Agree to change to make consistent.

PROTOCOLS FOR PUBLIC COMMENT
Protocol Reference #'s:
7010, 7020, 9120, 10010, 10020, 10030, 10050, 10080, 10090, 10100, 10140, 10150, 11030, 12010, 12020, 13010, 13020, 13030, 14020, 14040 and 14090
DUE: July 13, 2012 at 5 p.m.

PROTOCOL #	AGENCY	COMMENT	RESPONSE
14020	Ontario FD	Why did you remove drooling and grunting - these are both common s/s of pediatric airway obstruction. Other changes making AHA - look good.	The removal of drooling and grunting were specific to the new AHA guidelines.
14040	Ontario FD	Remove the "r" from tube. Just confirming that the pediatric defibs will be 2j/kg, 4j/jg, and 10 j/kg. Any additional defibs should be at 10j/kg? Under ROSC - #7 Epinephrine dose for 1 day - 8 years - 0.005 mg/kg - mcg should be changed to mgs.	Agree to make change. This is correct. The dose is the correct vasopressor dose and is in mcgs for consistency.
14090	Ontario FD	Why is compression ratio 90 compressions and 30 ventilation - please keep consistent and put 100 compressions and 30 ventilations/min. You have utilize Quantitative Waveform Capnography stated here - in other protocols you just have waveform capnography and in some just capnography. Make all protocols consistent. Just remove b. under circulation. You already cover to do chest compressions if HR less than 100. Why need repeat if hr less than 60 - do chest compressions. ALS Interventions #4 is confusing. Needs to be reworded. Evaluation airway for body temperature?	Agree to change to make consistent. Agree to change to make consistent. Agree to make change. # 4 was recommended by MAC to remind medics to warm and maintain an adequate airway before starting to push meds.