



Inland Counties Emergency Medical Agency

Serving San Bernardino, Inyo, and Mono Counties

Virginia Hastings, Executive Director

Reza Vaezazizi, M.D., Medical Director

DATE: June 16, 2011

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
ICEMA Executive Director

Reza Vaezazizi, MD
ICEMA Medical Director

SUBJECT: PROTOCOL PUBLIC COMMENT PERIOD

The following attached twenty-two (22) protocols have been reviewed and revised by the Protocol Education Committee and the Medical Advisory Committee (MAC) and are now available for public comment and recommendations. The public comment period has been shortened due to a recommendation by the Medical Advisory Committee (MAC) to enable presentation of recommended protocols and comments to the Emergency Medical Care Committees (EMCC) in July to prevent further delay in implementation of the protocols. Many of these protocols reflect the updated American Heart Association changes and directly impact patient care.

ICEMA encourages all system participants to submit recommendations, in writing, to ICEMA during the comment period. **Written comments will be accepted until July 15, 2011 at 5 P.M.** Comments may be sent hardcopy, faxed to (909) 388-5825 or via e-mail to SShimshy@cao.sbcounty.gov.

Protocol Reference #:

- Draft Controlled Substance Policy
- 1040 Requirements for EMT-P Accreditation
- 1060 Certification/Accreditation Review Policy
- 3010 Annual Review Class (ARC)
- 5030 Procedure for Adoption of Protocols and Policies
- 6030 AED Service Provider Policy – Public Safety
- 6040 Lay Rescuer AED Implementation Guidelines
- 8030 Burn Destination and Criteria Policy
- 8060 San Bernardino County Requests for Hospital Diversion Policy
- 8080 Bed Delay Patient Destination Policy
- 9110 Treatment of Patients with Airborne Infections and Transport Recommendations
- 10060 Needle Thoracostomy
- 10070 Needle Cricothyrotomy

- 10110 Transcutaneous Cardiac Pacing
- 10120 Synchronized Cardioversion
- 10130 Automatic External Defibrillation (AED)-BLS
- 11020 Airway Obstruction – Adult
- 11040 Bradycardias – Adult
- 11050 Tachycardias – Adult
- 11060 Suspected Acute MI
- 11070 Cardiac Arrest – Adult
- 11090 Shock (Non-Traumatic)

VH/RV/DWS/SS/mae



CONTROLLED SUBSTANCE POLICY

PURPOSE

To establish minimum requirements and accountability for ICEMA approved ALS providers to procure, stock, transport, and use controlled substances in compliance with the Federal Controlled Substances Act.

POLICY

All ICEMA approved ALS providers shall have a formal agreement with a qualified Medical Director or a drug authorizing physician who agrees to purchase controlled substances using the appropriate DEA registration number and forms. This physician will retain ownership, accountability and responsibility for these controlled substances at all times. All ALS providers will develop policies compliant with Title 2, chapter 13 of the Federal Controlled Substance Act. The policies must clearly outline the procedure for procurement, receipt, distribution, waste management and associated record keeping for the controlled substances purchased under their DEA registration number.

The medical director or drug authorizing physician must be a physician licensed to practice medicine in State of California and must apply and obtain a valid DEA registration number for the ALS provider they propose to purchase controlled substances for. If a physician has agreements with multiple ALS providers, separate DEA registration numbers are required for each individual provider agency. Physicians should not use their personal DEA registration number that they use for their clinical practice.

PROCEDURE

All controlled substances will:

- Be purchased and stored in tamper evident containers.
- Be stored in a secure and accountable manner.
- Be kept under a “double lock” system at all times.
- Be counted a minimum of daily or at any change of shift or change in personnel.

Required documentation:

- ALS providers must maintain a log of all purchased controlled substances for a period of no less than 2 years.
- All controlled substance usage will be documented in patient care records.

- All wastage of unused portions of controlled substances must be witnessed and documented by at least two licensed providers (both providers must sign the log).
- In the event of breakage of a narcotic container an incident report will be completed and the damage reported to the appropriate supervisor.
- Discrepancies in the narcotic count will be reported immediately to the appropriate supervisor and a written report must be submitted.

SAMPLE DAILY LOG

Agency: _____

Month: _____ Year: _____

Double Lock

Shift Change Medic

Date

In Place

Midazolam 5mg

On

	DATE	DOUBLE LOCK IN PLACE?	MIDAZOLAM 5MG	MORPHINE 10MG	DRUG ADMINISTERED – AMOUNT GIVEN / WASTED O1A # PATIENT NAME DATE/TIME MEDIC NAME	DUTY MEDIC	CAPTAIN OR SUPERVISOR
1		Yes / No	Amount _____	Amount_____		Can Not Be Same Signature	Can Not Be Same Signature
2		Yes / No	Amount _____	Amount_____		Can Not Be Same Signature	Can Not Be Same Signature
3		Yes / No	Amount _____	Amount_____		Can Not Be Same Signature	Can Not Be Same Signature
4		Yes / No	Amount _____	Amount_____		Can Not Be Same Signature	Can Not Be Same Signature
5		Yes / No	Amount _____	Amount_____		Can Not Be Same Signature	Can Not Be Same Signature
6		Yes / No	Amount _____	Amount_____		Can Not Be Same Signature	Can Not Be Same Signature
7		Yes / No	Amount _____	Amount_____		Can Not Be Same Signature	Can Not Be Same Signature
8		Yes / No	Amount _____	Amount_____		Can Not Be Same Signature	Can Not Be Same Signature



REQUIREMENTS FOR EMT-P ACCREDITATION

PURPOSE

To define the accreditation requirements for an eligible individual to practice as an Emergency Medical Technician-Paramedic (EMT-P) within the counties of Inyo, Mono and San Bernardino.

AUTHORITY

Title 22, Division 9, Chapter 4, Section 100164 of the California Health and Safety Code.

PROCEDURE

Initial EMT-P Accreditation

1. Possess a current State Paramedic License.
2. Submit the appropriate ICEMA application with:
 - a. ICEMA Fee. The fee is not refundable or transferable.
 - b. Verification of employment or intent to employ as an EMT-P by an authorized ALS provider agency or by an EMS provider agency that has formally requested ALS authorization in the ICEMA region.
 - c. Copy of front and back of current State [EMT-P License](#).
 - d. [Copy of current government issued photo identification.](#)
 - e. [A signed copy \(front and back\) of the individual's current American Heart Association BLS Healthcare Provider or American Red Cross Professional Rescuer CPR card.](#)
 - f. [A signed copy \(front and back\) of the individual's current Advanced Cardiac Life Support Card.](#)
 - d. ~~Copy of front and back of current signed BLS/CPR and ACLS cards.~~
 - e-g. ~~Copy of course completion certificate.~~

3. Photo taken by ICEMA when application is submitted. If the application is submitted by mail, the applicant must provide a photo which is full face and passport compliant. Photocopy of the applicant's driver's license must be included for verification purposes.
- ~~3. Photo taken at ICEMA when application is submitted. Applicant may submit a driver's license size photo (no tinted glasses or hats) with their application.~~
4. A provisional card ~~may will~~ be issued upon receipt of items #1 through #3. The provisional EMT-P may function using the approved State Basic Scope of Practice while working with a partner who is fully accredited as an EMT-P within the local EMS region for thirty (30) calendar days from receipt of completed application. The ICEMA Medical Director may extend this provisional status for just cause.
5. If the accreditation requirements are not completed within thirty (30) days, the applicant must complete a new application and pay a new fee to begin another thirty (30) day period. An applicant may only apply for initial accreditation a maximum of three (3) times per calendar year.
6. ~~C~~Successfully complete an orientation (not to exceed eight (8) classroom hours) of local protocols and policies given by an ICEMA approved EMT-P orientation/skills instructor and document training in all ICEMA approved optional~~undefined~~ scope of practice areas. The ICEMA Medical Director may waive this requirement for EMT-P accreditation applicants graduates from who graduate from an approved EMT-P training institution in the ICEMA this region.
7. ~~P~~Successfully pass the local accreditation written examination with a minimum score of eighty percent (80%)~~skills testing in undefined scope of practice~~.
 - a. A candidate who fails to pass the ICEMA accreditation exam on the first attempt will have to pay the ICEMA approved fee and re-take the exam with a score of 85%.
 - b. A candidate who fails to pass the ICEMA accreditation written exam on the second attempt will have to pay the ICEMA approved fee, and provide documentation of eight (8) hours of remedial training in ~~relation to~~ ICEMA protocols, policies / procedures given by their EMS/QI Coordinator and pass the ICEMA exam with a score of 85%.
 - c. If the candidate fails to pass the ICEMA accreditation exam on the third attempt, the candidate **will be ineligible for accreditation for a period of six (6) months at which time candidate must reapply and successfully complete all initial accreditation requirements.**

8. Successfully complete a supervised field evaluation to consist of no less than five (5) but no more than ten (10) ALS responses. The ICEMA Medical Director may waive this requirement for EMT-P accreditation applicants who graduate from an approved EMT-P training institution in the ICEMA region who have met **all** of the following conditions:
 - a. Course completion was within six (6) months of the date of application for accreditation.
 - ~~a.~~b. Field internship was obtained within the ICEMA region with an ICEMA approved EMT-P preceptor.
 - ~~b.~~c. Complete and sign the waiver documenting items (a) and (b). No other form will be accepted.
9. The Medical Director shall evaluate any candidate who fails to successfully complete the field evaluation and may recommend further evaluation or training as required. Failure to complete the supervised field evaluation may constitute failure of the entire process.
10. ~~ICEMA~~The local EMS agency will notify individuals applying for accreditation of the decision to accredit within ~~fifteen~~thirty (30) days of receipt of completed application.

EMT-P Reverification

1. Possess a renewed California EMT-P license and current ICEMA accreditation. If ICEMA accreditation has lapsed for more than one (1) year, the individual must comply with the initial accreditation procedure.
2. Photo taken by ICEMA when Reverification form is submitted. If the form is submitted by mail, the applicant must provide a photo which is full face and passport compliant. Photocopy of the applicant's driver's license must be included for verification purposes.
~~Photo taken at ICEMA when Reverification form is submitted. A driver's license size photo (no tinted glasses or hats) may be submitted with the Reverification form~~
3. Submit the ICEMA Continuous Accreditation Reverification form with:
 - a. ICEMA fee. The fee is not refundable or transferable

- b. Verification of employment or intent to employ as an EMT-P by an authorized ALS provider agency or by an EMS provider agency that has formally requested ALS authorization by ICEMA.
- c. A signed copy (front and back) of the individual's current American Heart Association BLS Healthcare Provider or American Red Cross Professional Rescuer CPR card.
- d. A signed copy (front and back) of the individual's current Advanced Cardiac Life Support Card.
- e. Documentation of two (2) ICEMA approved Skills Day, one (1) during each year of accreditation, a minimum of six (6) months apart.
- f. Documentation of six (6) hours of field care audits obtained within the ICEMA region, three (3) hours during each year of accreditation.

Effective January 1, 2014, failure to meet items (e) and (f) above will result in penalties as outlined in ICEMA Protocol Reference #5090-ICEMA Fee Schedule and still complete the requirements prior to reverification.

- h. Documentation of two (2) ~~consecutive~~different ICEMA Annual Review classes (ARC), -one during each year of accreditation.
~~(NOTE: This requirement will remain in effect until December 31, 2006. After that date the Annual Curriculum Class will replace the PUC.)~~

NOTE: Individuals accredited less than six (6) months must submit a new application and a current state license.

Individuals accredited more than six (6) months but less than one (1) year must submit a new application, items a-d above and complete one half of each educational requirement.

Individuals accredited more than one (1) year must complete all requirements.

Accreditation exam does not replace or fulfill the requirement for Skills Days or Field Care Audits. These must be completed prior to reverification.

- 4. Individuals without documentation of two (2) ~~consecutive~~different ARC classes must pay testing fee and penalties as set by ICEMA and ~~successfully~~pass the ICEMA accreditation exam with a score of eighty percent (80%).

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



CERTIFICATION/ACCREDITATION REVIEW POLICY

PURPOSE

To establish a process for the disciplinary review of certification and/or accreditation held by all levels of prehospital care personnel within the ICEMA region.

AUTHORITY

California Health and Safety Code 1798.200-, 1798.208

California Code of Regulations, Title 22, Division 9, Chapter 6

California Government Code Title 2, Chapter 5, Section 11507.6-11507.7, 11513, 11514

POLICY

1. Disciplinary proceedings are in accordance with Title 22, Chapter 6 of the California Code of Regulations at <http://www.emsa.ca.gov/legislation/division25.rtf>.
2. Paramedic licensure actions (e.g., immediate suspension) shall be performed according to the California Health and Safety Code 1798.202.
3. Notification to the EMS Authority is through the Form EMSA-Negative Action Report at http://www.emsa.ca.gov/emt1-p/negative_action_personnel.doc.
4. If the action is to recommend to the EMS Authority for disciplinary action of an EMT-P license:
 - a. A summary explaining the actions of the EMT-P that are a threat to the public health and safety pursuant to Section 1798.200 of the Health and Safety Code; and,
 - b. Documented evidence, relative to the recommendation, collected by the Medical Director, forwarded to the State EMS Authority.
5. Request for discovery, petitions to compel discovery, evidence and affidavits shall be followed pursuant to the Administrative Procedures Act (Government Code, Title 2, Chapter 5, Sections 11507.6, 11507.7, 11513, and 11514). <http://www.leginfo.ca.gov/cgi-bin/displaycode?section=gov&group=11001-12000&file=11500-1154>.



ANNUAL REVIEW CLASS (ARC)

PURPOSE

To define the eligibility and procedural requirements for the mandatory yearly Annual Review Class (ARC) for the Paramedic (EMT-P) applying for Continuous Accreditation and/or the Mobile Intensive Care Nurse (MICN) applying for Continuous Certification or Inactive MICN status within the ICEMA Region. The Annual Review Class is developed by a multidisciplinary task-force and the curriculum approved by the ICEMA Medical Director.

PROCEDURE

1. The authorized class is valid from January 1 through December 31 of each year. ~~This protocol will apply to those individuals with expiration dates after Jan 31, 2007.~~
2. It is the responsibility of the individual to take the class during each year of accreditation or certification.
3. Failure to take an Annual Review Class during each year of accreditation or certification will result in the EMT-P or MICN having to successfully pass the ICEMA EMT-P Accreditation/MICN Certification Written Exam with a minimum score of eighty percent (80%). Additionally, financial penalties will apply.
4. The EMT-P or MICN must register and pay the exam fee to ICEMA prior to the scheduled deadline.

CRITERIA FOR TEACHING THE ANNUAL REVIEW CLASS

1. Approved C.E. providers shall request approval from ICEMA to provide the class:
 - a. Submit a completed application to be approved as a training program.
 - b. Application must include a list of your proposed trainers with copies of their resumes attached.
 - c. Pay the ICEMA approved Training Program approval fee.
 - d. Approval is granted for a period of one (1) year.

2. ICEMA should be notified thirty (30) days in advance of the class offering in order to be able to post the class dates, times and locations on the ICEMA website and newsletter.
3. Within fifteen (15) days of class completion, the provider will send the original C.E. roster to ICEMA with the Instructor Evaluation and any other material requested. All other course materials and records will be maintained, for a period of four (4) years, by the approved training program per Protocol Reference #3020, Policy for CE Provider Requirements.
4. Continuing Education hours will be granted for the class within accordance to Protocol Reference #3020 Continuing Education Provider Requirements.



PROCEDURE FOR ADOPTION OF PROTOCOLS AND POLICIES

PURPOSE

To establish ~~minimum procedural requirements~~ procedures for the adoption, amendment or repeal of ICEMA medical control protocols ~~and~~, policies and procedures.

Constituency advice and review is an essential component of policy, procedure and protocol development.

~~The provisions of this policy shall not apply to any protocol and/or policy not required to be approved by stipulation outlined in the Joint Powers Agreement.~~

The EMS constituent review process is advisory to ICEMA for the formulation of prehospital care policies and procedures. Policy/procedure suggestions and/or draft policies are accepted from committees, system participants, individuals and/or interested parties.

POLICY

1. ICEMA will review all protocols on a bi-annual basis or as necessary to ensure time critical policy changes.
2. Automatic policy changes may occur without specific review from the public or specific committees. Automatic changes include, but are not limited to:
 - changes in wording to clarify the objective
 - changes in the listed order for clarity or better flow
 - changes to assure protocol or policy continuity
 - changes required to comply with state and local law and/or regulation to maintain public health and safety.
 - correction of typographical or formatting errors
 - ~~determination that changes are needed to a protocol or policy that were not initially foreseen in its development.~~
 - time critical protocols or policies
3. ICEMA staff shall develop an initial draft with input from appropriate external

- agencies, organizations or other established advisory committees (i.e TSAC, STEMI, Stroke) as subject matter dictates, and present proposed protocols to the Protocol Education Committee (PEC) for review.
4. The PEC will provide additional input and make recommendations to ICEMA.
 5. Following review by appropriate committees, draft protocols will be submitted to the Medical Advisory Committee (MAC).
 6. Following MAC review, protocols will be released for public comment period.
 7. ICEMA shall consider all relevant matter presented to it before accepting, amending or repealing any protocol or policy.
 8. Policies will be released for thirty (30) day public comment period. The public comment period may be shortened to 15 days if ICEMA determines the policy or protocol to be time sensitive.
 9. Upon closure of the public comment period ICEMA will prepare a final draft policies/procedures with a detailed spreadsheet for presentation at the Emergency Medical Care Committee (EMCC) meetings held in all three counties. Spreadsheet shall include all comments received and ICEMA's response to the comments.
 10. Following endorsement by the EMCCs, policies will be presented to the ICEMA Medical Director and ICEMA Executive Director for signature.
 11. Protocols and/or policies approved by the Medical Director and Executive Director shall become effective no sooner than thirty (30) days after the date of approval.

EMERGENCY PROTOCOLS/POLICIES ADOPTION OR REPEAL PROCESS

1. If ICEMA determines that an emergency protocol or policy the adoption or repeal of a protocol and/or policy is necessary for the immediate preservation of the public health and safety or general welfare, a the protocol and/or policy may be adopted, amended, deleted or repealed as an emergency action of appeal.
2. Any finding of an emergency shall will include a written statement describing the specific facts showing the need for immediate action. The statement and the protocol or policy shall be immediately forwarded to the ICEMA Medical Control Advisory Committee and appropriate EMS provider agencies. The emergency protocol and/or policy will become effective no sooner than five (5) days following dissemination to the ICEMA Medical Control Advisory Committee.

3. ~~No protocols or policyies adopted under the emergency adoption provision shall remain in effect for approximately more than one hundred and twenty (120) days to allow for appropriate committee review and public comment period, unless ICEMA complies with the other provisions of this policy.~~
4. ~~A protocol or policy adopted under this emergency provision shall not be readopted as an emergency protocol or policy except with the express prior approval of the Health Officer of San Bernardino County.~~
5. ~~Protocols and/or policies approved by the Medical Director and the Health Officers shall become effective no sooner than 30 days after the date of approval by the Medical Director.~~

PUBLIC COMMENT PERIOD NOTICE OF PROPOSED ACTION — PUBLICATION, MAILING, EFFECTIVE PERIOD

ICEMA will:

1. Open all protocols to public comment for a period of thirty (30) days except in instances where the Executive Director and ICEMA Medical Director deem it necessary to shorten the period to protect and/or improve public health and safety.
2. a. Post proposed changes on the ~~ublished in the~~ ICEMA website at www.ICEMA.net/newsletter.
3. b. E-mMailed ~~proposed changes~~ to voting members of the Emergency Medical Care Committees, ICEMA Medical Control Advisory Committee.
4. . E-mail proposed changes ~~Mailed~~ to each EMS provider agency, ~~whom ICEMA believes to be interested in the proposed action.~~
5. d. ~~ME-mail proposed changes ailed to~~ every person whom has filed a request for notification ~~thereof~~ with ICEMA.
6. ICEMA shall ~~m~~Make copies of the proposed protocols and/or policies available to the public and ~~constituentsunty agencies at a nominal cost~~ which is consistent with a policy of encouraging the widest possible notice distribution to interested persons.
5. Any oversight in notification described above

~~6.7.~~ 3. — ~~The failure to mail notice to any person as provided in this policy~~ shall not invalidate any action taken by ICEMA pursuant to this policy.

CONTENTS OF NOTICE OF PROPOSED PUBLIC COMMENT PERIOD NOTIFICATION ADOPTION, AMENDMENT OR REPEAL

1. The notice of proposed adoption, amendment, or repeal of a protocol or policy shall include:

a. A statement of the time and place of proceedings for adoption, amendment, or ~~repeal~~ of a protocol or policy.

b. ~~The name and telephone number of the agency contact person to whom inquiries concerning the proposed action may be directed.~~

c. A date by which comments submitted ~~in writing~~ must be received in writing to present statements, arguments, or contentions in writing relating to the proposed action in order for them to be considered by ICEMA before it adopts, amends, or repeals a protocol or policy.

~~a.~~

b.d. The provisions of this section shall not be construed in any manner ~~which results to in the~~ invalidation of a protocol or policy due to perceived because of the alleged inadequacy of the notice content if there has been substantial compliance with this requirement.

~~4.~~

~~2.~~ — ~~The provisions of this section shall not be construed in any manner which results in the invalidation of a protocol or policy because of the alleged inadequacy of the notice content if there has been substantial compliance with this requirement.~~

CONDITIONS ON SUBSTANTIAL CHANGES OR MODIFICATIONS

~~On the date and at the time and place designated in the notice, ICEMA shall afford any interested person or his duly authorized representative, or both, the opportunity to present statements, arguments, or contentions in writing, with opportunity to present the same orally at the ICEMA Medical Control Advisory Committee Meeting. ICEMA shall consider all relevant matter presented to it before adopting, amending or repealing any protocol or policy.~~

~~2. ICEMA shall have authority to continue or postpone the ICEMA Medical Control Advisory Committee Meeting from time to time to such time and at such place as it shall determine.~~

PETITION REQUEST FOR ADOPTION, AMENDMENT OR REPEAL OF PROTOCOL CONTENTS



AED SERVICE PROVIDER POLICY – PUBLIC SAFETY

PURPOSE

To establish a standard mechanism for designation and approval of Public Safety AED Service Providers in the ICEMA region. Public Safety Personnel is defined as Firefighter, Peace Officer and/or Lifeguard.

AUTHORITY

Health and Safety Code, Division 2.5, Sections 1797.196, California Code of Regulations Title 22 Division 9, Chapter 1.5 First Aid Standards for Public Safety Personnel.

POLICY

AED Public Safety service providers shall be approved by ICEMA prior to beginning service. Approval may be revoked or suspended for failure to comply with requirements of this policy or Title 22.

PUBLIC SAFETY AED SERVICE PROVIDER APPROVAL

Provider agencies that are seeking approval to implement AED services shall submit an application for a specialty program with the ~~the~~ following information to ICEMA for review and approval:

1. Description of the area served by the provider agency.
2. The model name of the AED(s) to be utilized.
3. Identify the individual responsible for managing the AED program.
4. Identify the primary instructor with qualifications.
5. Identify the training program to be used.
6. Policies and procedures to ensure orientation and continued competency of all AED trained personnel.
7. Procedures for maintenance of the AED.

8. Policies and procedures to collect maintain and evaluate patient care records. Attached AED Event Summary Worksheet may be utilized.
9. Identify the Medical Director.

RECORD KEEPING AND REPORTING REQUIREMENTS

The following data will be collected and reported to ICEMA annually by March 1 for the previous calendar year.

1. ~~The total number of patients defibrillated who were discharged from the hospital alive~~
2. The number of patients with sudden cardiac arrest receiving CPR prior to arrival of emergency medical care if known.
3. The total number of patients on whom defibrillatory shocks were administered, witnessed (seen or heard) arrest and not witnessed arrest.
4. The number of these persons who suffered a witnessed cardiac arrest whose initial monitored rhythm was ventricular tachycardia or ventricular fibrillation.
5. A listing of all public safety AED authorized personnel



LAY RESCUER AED IMPLEMENTATION GUIDELINES

PURPOSE

This is a guidance document to assist businesses and organizations implement Lay Rescuer automated external defibrillator programs within the ICEMA region. Using automated external defibrillators (AED) for out-of-hospital cardiac arrests has been proven to increase survival rates. ICEMA supports the use of Lay Rescuer (non-licensed or non-certified personnel person) access AEDs within the ICEMA region, and these guidelines are intended to facilitate the proliferation of AED programs.

AUTHORITY

1. California Health and Safety Code Sections 1797.5, 1797.107, 1797.190 and 1797.196.
2. California Code of Regulations Title 22, Division 9, Chapter 1.8 Sections 100031 through 100040, as revised January 8, 2009. (See Attachment C).

REQUIREMENTS OF BUSINESS/ORGANIZATION/INDIVIDUAL

1. Become familiar and comply with California AED regulations and statutes, referenced above.
2. Complete a Notification of Defibrillator Site form (Attachment A) listing each AED unit being deployed in the ICEMA region. Submit the form to:

ICEMA
515 N. Arrowhead Ave.
San Bernardino, CA 92415-0060

3. Re-submit a Notification of Defibrillator Site form if any of the information becomes outdated (i.e., the AED is moved to a different location, a new AED is purchased, etc.).
4. Every time an AED is used, complete the Report of Defibrillator Use form (Attachment B), and submit via fax to ICEMA at (909) 388-5825, within 24 hours of use.

IMPLEMENTATION CHECKLIST

Listed below are key elements taken from the California AED regulations and statutes. Each element must be satisfied to implement a Lay Rescuer AED programs within the ICEMA region.

<input type="checkbox"/>	Notify ICEMA of the existence, location, and type of every AED within the ICEMA region. The business or organization responsible for the device must, at the time the device is acquired and placed, notify ICEMA. (Attachment A).
<input type="checkbox"/>	Expected AED users/rescuers must complete a training course in cardiopulmonary resuscitation (CPR) and in use of the AED device. The training curriculum must comply with regulations adopted by the California Emergency Medical Services Authority, the standards of the American Heart Association, or the American Red Cross. The training shall include a written and skills examination.
<input type="checkbox"/>	Any AED training course for non-licensed or non-certified personnel (Lay Rescuers) shall have a physician medical director
<input type="checkbox"/>	A California licensed physician and/or surgeon must be involved in developing an internal emergency response plan for the site of the AED. The physician/surgeon is responsible for ensuring the businesses or organization's AED program complies with State regulations and requirements for training, notification, and maintenance. The internal emergency response plan shall include, but not be limited to, the provisions for immediate notification of 911 and AED-trained on-site personnel, upon discovery of the emergency. As well as procedures to be followed in the event of an emergency that may involve the use of an AED
<input type="checkbox"/>	The business/organization/lay rescuer in possession of the AED must comply with all regulations governing the training, use, and placement of the device.
<input type="checkbox"/>	The AED must be maintained and regularly tested according to the manufacturer's operation and maintenance guidelines, the American Red Cross, and American Heart Association. Maintenance and testing must also comply with any applicable rules and regulations set forth by the US Food and Drug Administration and any other applicable authority.
<input type="checkbox"/>	The AED must be checked for readiness at least once every 30 days and after each use. Records of these periodic checks shall be maintained by the business/organization in possession of the device.
<input type="checkbox"/>	A mechanism shall exist to ensure that any person rendering emergency care or using the AED activate the emergency medical services system (911) immediately. Further, the business/ organization in possession of the AED is responsible for reporting any use of the AED to the physician medical director and to ICEMA. (Attachment B).
<input type="checkbox"/>	A mechanism shall exist that assures the continued competency of the expected AED users/ rescuers employed by the business/organization in possession of the AED. Such mechanism shall include periodic training and skills proficiency demonstrations sufficient to maintain competency.
<input type="checkbox"/>	For every AED unit acquired up to five units, no less than one employee per AED unit shall complete a training course in CPR and AED. After the first five AED units are acquired, for each additional five AED units acquired, one additional employee shall be trained beginning with the first additional AED unit acquired. The business/organization in possession of the AED shall have trained employees available to respond to a cardiac emergency during normal operating hours.

ATTACHMENT A**Notification of Defibrillator Site**

Physician Medical Director Information	
Physician's Name CA Medical License No:	
Physician's Phone No:	
I am serving as the Physician Medical Director for this defibrillation program as described in the California Code of Regulations, Section 100039. I hereby certify that the AED program described herein complies with all applicable laws and regulations, including placement, use, training, and maintenance of the device(s).	
Date:	Signature:
On-Site Contact Information	
Name of On-Site Contact:	
Employer:	
Phone Number of On-Site Contact:	
Physical Address of On-Site Contact:	
Mailing Address of On-Site Contact:	

AED Location Information	
Name of Building or Complex:	
Physical Address:	
Nearest Cross Street:	
Floor and location of device placement:	
Closest/Fastest Street Access Point:	
Equipment Information	
Make:	
Model:	
Is AED in an alarmed/locked cabinet?	
Date of placement at this location:	

AED Location Information	
Name of Building or Complex:	
Physical Address:	
Nearest Cross Street:	
Floor and location of device placement:	
Closest/Fastest Street Access Point:	
Equipment Information	
Make:	
Model:	
Is AED in an alarmed/locked cabinet?	
Date of placement at this location:	

AED Location Information	
Name of Building or Complex:	
Physical Address:	
Nearest Cross Street:	
Floor and location of device placement:	
Closest/Fastest Street Access Point:	
Equipment Information	
Make:	
Model:	
Is AED in an alarmed/locked cabinet?	
Date of placement at this location:	

AED Location Information	
Name of Building or Complex:	
Physical Address:	
Nearest Cross Street:	
Floor and location of device placement:	
Closest/Fastest Street Access Point:	
Equipment Information	
Make:	
Model:	
Is AED in an alarmed/locked cabinet?	
Date of placement at this location:	

ATTACHMENT B

Notification of Defibrillator Site

Name Of AED Service Provider:	
Date of Occurrence:	
Time of Occurrence:	
Place of Occurrence: (Address & specific location)	
Patient's Name:	
Patient's Age:	
Patient's Sex:	
Approximate down time prior to your arrival:	
Did anyone witness the collapse/arrest?	
Alert Time (time you were notified):	
Was CPR used prior to AED at victim?	
Time of first shock (if given):	
Total number of shocks:	
Did victim regain a pulse at scene?	
Responder Name(s):	
Name and phone number of person completing form:	

Additional Comments Information:

FAX this completed report to ICEMA within 24 hours of use of an AED.

FAX to: 909-388-5825



BURN DESTINATION AND CRITERIA POLICY

PURPOSE

To ensure the appropriate destination of patients sustaining burn injuries.

AUTHORITY

Health and Safety Code Sections 1797.220, 1797.222 & 1798
California Code of Regulations, Title 22, Division 9, Sections 100144, 100304, 100107, 100128, 100175A2

DEFINITIONS

Adult Patients: a person appearing to be \geq 15 years of age.

Pediatric Patients: a person appearing to be $<$ 15 years of age.

Burn Patients: patients meeting ICEMA's burn classifications, minor, moderate or major.

Critical Trauma Patients (CTP): patients meeting ICEMA's Critical Trauma Patient Criteria.

Trauma Hospital: a licensed general acute care hospital designated by ICEMA's Governing Board as a trauma hospital in accordance with State laws and regulations.

POLICY

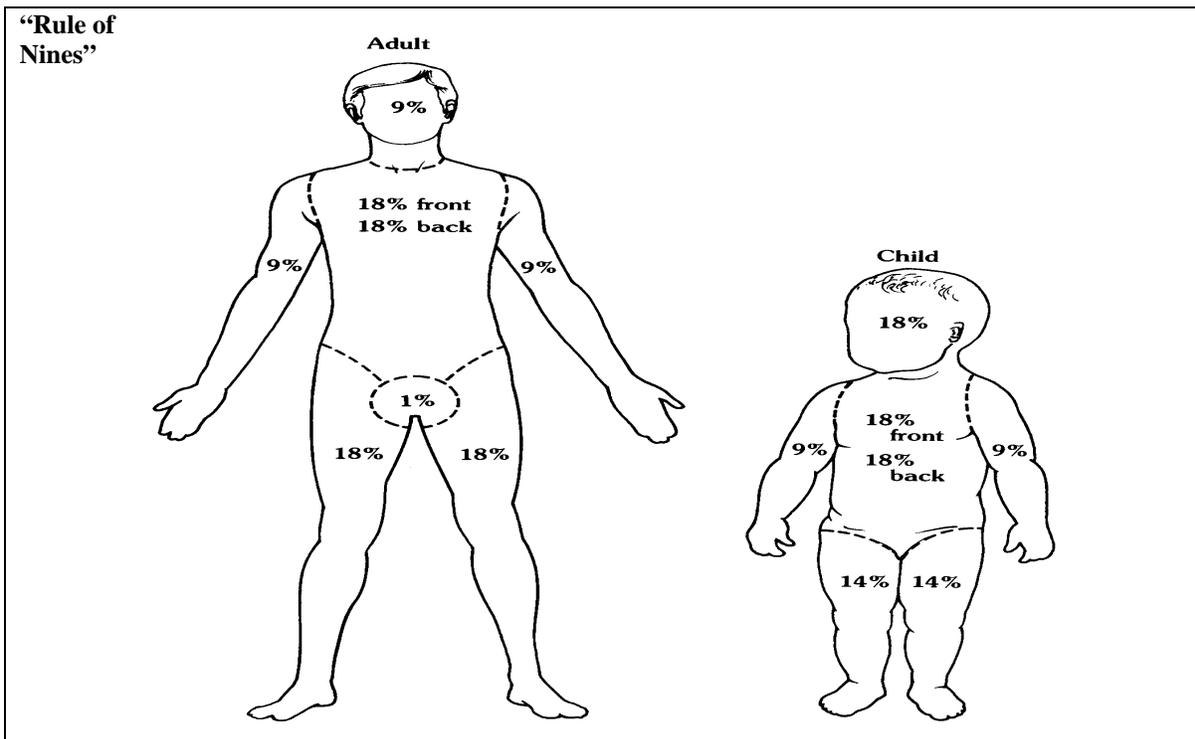
A. TRANSPORTATION

1. Burn patients meeting minor or moderate classifications will be transported to the closest **most appropriate** receiving hospital.
2. Burn patients meeting major burn classification will be transported to the closest most appropriate burn center (in San Bernardino County contact ARMC).
3. Burn patients meeting the physiologic or anatomic criteria for CTP will be transported to the most appropriate trauma hospital, Refer to Protocol #15030, Trauma Triage Criteria and Destination Policy.

4. Pediatric burn patients identified as a CTP will be transported to a pediatric trauma hospital when there is less than a twenty (20) minute difference in transport time to the pediatric trauma hospital versus the closest trauma hospital.
5. When estimated transport to the most appropriate trauma hospital (for patients identified as a CTP) is thirty (30) minutes or less, ground ambulance shall be the primary means of transport. EMS Aircraft transport shall not be used unless ground transport is expected to be greater than thirty (30) minutes and EMS Aircraft transport is expected to be significantly more expeditious than ground transport. If an EMS aircraft is dispatched, adherence to the Aircraft Destination Policy #14054 (in San Bernardino County) is mandatory.
6. Burn patients with respiratory compromise, or potential for such, will be transported to the closest ~~most appropriate~~ receiving hospital for airway stabilization.
7. Hospital trauma diversion status: Refer to Protocol #8060 San Bernardino County Hospital Diversion Policy.
8. Paramedics may contact the base hospitalstation or trauma base hospitalstation for destination consultation on any patient that does not meet any of the above criteria, but who, in the paramedic's opinion, would be more appropriately serviced by direct transport to a burn center.

B. BURN CLASSIFICATIONS

ADULT BURN CLASSIFICATION CHART	PEDIATRIC BURN CLASSIFICATION CHART	DESTINATION
<p><u>MINOR</u> – ADULT</p> <ul style="list-style-type: none"> • < 10% TBSA • < 2% Full Thickness 	<p><u>MINOR</u> - PEDIATRIC</p> <ul style="list-style-type: none"> • < 5% TBSA • < 2% Full Thickness 	<p>CLOSEST MOST APPROPRIATE RECEIVING HOSPITAL</p>
<p><u>MODERATE</u> – ADULT</p> <ul style="list-style-type: none"> • 10 - 20% TBSA • 2 - 5% Full Thickness • High Voltage Injury • Suspected Inhalation Injury • Circumferential Burn • Medical problem predisposing to infection (e.g., diabetes mellitus, sickle cell disease) 	<p><u>MODERATE</u> - PEDIATRIC</p> <ul style="list-style-type: none"> • 5 – 10% TBSA • 2 – 5% Full Thickness • High Voltage Injury • Suspected Inhalation Injury • Circumferential Burn • Medical problem predisposing to infection (e.g., diabetes mellitus, sickle cell disease) 	<p>CLOSEST MOST APPROPRIATE RECEIVING HOSPITAL</p>
<p><u>MAJOR</u> – ADULT</p> <ul style="list-style-type: none"> • >20% TBSA burn in adults • > 5% Full Thickness • High Voltage Burn • Known Inhalation Injury <ul style="list-style-type: none"> • Any significant burn to face, eyes, ears, genitalia, or joints 	<p><u>MAJOR</u> - PEDIATRIC</p> <ul style="list-style-type: none"> • > 10% TBSA • > 5% Full Thickness • High Voltage Burn • Known Inhalation Injury <ul style="list-style-type: none"> • Any significant burn to face, eyes, ears, genitalia, or joints 	<p>CLOSEST MOST APPROPRIATE BURN CENTER</p> <p>In San Bernardino County, contact: Arrowhead Regional Medical Center (ARMC)</p>



C. EXCEPTIONS

The burn patient who presents with the following:

<p>Airway Stabilization:</p> <p><u>Transport to the closest—most appropriate receiving hospital for airway stabilization when the patient:</u></p>	<ul style="list-style-type: none"> • has respiratory compromise, or potential for compromise
<p>Transport to the closest most appropriate receiving hospital when the patient:</p>	<ul style="list-style-type: none"> • has deteriorating vital signs • is pulseless and apneic
<p>EMS Aircraft Indications:</p> <p><u>An EMS aircraft may be dispatched for the following events:</u></p>	<ul style="list-style-type: none"> • MCI • Prolonged extrication time (> twenty (20) minutes) • Do Not Delay Patient Transport waiting for an enroute EMS aircraft
<p>EMS Aircraft Transport Contraindications:</p> <p><u>The following are contraindications for EMS aircraft patient transportation:</u></p>	<ul style="list-style-type: none"> • Patients contaminated with Hazardous Material who cannot be decontaminated and who pose a risk to the safe operations of the EMS aircraft and crew • Violent patients with psychiatric behavioral problems and uncooperative patients under the influence of alcohol and/or mind altering substances who may interfere with the safe operations of an EMS aircraft during flight • Stable patients

	<ul style="list-style-type: none"> • Ground transport is < 30 minutes • Traumatic cardiac arrest • Other safety conditions as determined by pilot and/or crew
Remote Locations:	<ul style="list-style-type: none"> • Remote locations may be exempted from specific criteria upon written permission from the EMS Medical Director

D. CONSIDERATIONS

1. Scene time should be limited to ten (10) minutes under normal circumstances.
2. Burn patients with associated trauma, in which the burn injury poses the greatest risk of morbidity or mortality, should be **considered** for transport to the closest most appropriate Burn Center. Trauma base hospitalstation contact shall be made.

E. RADIO CONTACT

1. If not contacted at scene, the receiving trauma hospital must be notified as soon as possible in order to activate the trauma team.
2. For patients meeting Trauma Triage Criteria (Physiologic, Anatomic, Mechanism of Injury, and/or Age and Co-Morbid Factors), a trauma base hospitalstation shall be contacted in the event of patient refusal of assessment, care, and/or transportation.
4. In Inyo and Mono Counties, the assigned base hospitalstation should be contacted for CTP consultation.



SAN BERNARDINO COUNTY REQUESTS FOR HOSPITAL DIVERSION POLICY

PURPOSE

To define policy and procedures for hospitals to request temporary diversion of Advanced Life Support (ALS) Ambulances.

AUTHORITY

Health and Safety Code, Division 2.5, Chapter 6, Section 1798(a), 1798.2, 1798.102; California Code of Regulations (CCR), Title 22, Division 9, Chapter 4, 100169.

PRINCIPLES

- A request for diversion of Advanced Life Support (ALS) ambulances should be a temporary measure.
- Final authority relating to destination of ALS ambulances rests with the base hospital physician.
- The approved EMS system diversion policy applies to the 9-1-1 emergency system and is not intended for utilization to determine destination for interfacility transports, including higher level of care transports.
- A hospital's request to divert in the approved categories shall be made by the emergency department attending physician or by the trauma surgeon for trauma hospital diversion, in consultation with the hospital CEO or delegated responsible administrative representative. The consultation with the administrative officer must be documented and available for review.
- Hospitals must maintain a hospital diversion policy that conforms to the ICEMA Diversion Protocol. The policy should include plans to educate all appropriate staff on proper utilization of diversion categories, internal procedures for authorizing diversion and procedures for notification of system participants.
- ICEMA may perform unannounced site visits to hospitals on temporary diversion status to ensure compliance with the ICEMA Diversion Policy.
- ICEMA may randomly audit base hospital records to ensure diverted patients are transported to the appropriate destination.

- When possible, ICEMA staff will contact the hospital to determine the reasons for internal disaster diversion.
- ICEMA reserves the right and responsibility to advise any hospital that the diversion is not appropriate for a 9-1-1 system and may remove the hospital from diversion through the Reddinet.

POLICY

A request for diversion of ALS ambulances may be made for the following approved categories:

1. Neuro/CT Diversion:

(DOES NOT APPLY FOR TRAUMA CENTERS FOR TRAUMA DIVERSION)

The hospital's CT scanner is not functioning and, therefore, is not the ideal destination for the following types of patients:

- New onset of altered level of consciousness for traumatic or medical reasons.
- Suspected stroke

2. Trauma Hospital Diversion (*for use by designated trauma hospitals only*):

The general surgeon for the trauma service and other designated trauma team resources are fully committed and are NOT immediately available for incoming patients meeting approved trauma triage criteria.

- The request for trauma diversion should only be applicable if the general surgeon and back-up general surgeon are committed. The ability to request trauma hospital diversion cannot be used in cases of temporary unavailability of subspecialists.
- **WHEN ALL DESIGNATED TRAUMA HOSPITALS ARE ON TRAUMA DIVERSION, TRAUMA CENTERS SHALL ACCEPT ALL TRAUMA PATIENTS.**

Designated trauma hospitals may not divert patients meeting trauma triage criteria to a non-designated hospital except in instances of Internal Disaster Diversion.

3. Internal Disaster Diversion:

Requests for Internal Disaster Diversion shall apply only to physical plant breakdown threatening the emergency department or significant patient services.

Examples of internal disaster diversion include bomb threats, explosions, power outage and a nonfunctional generator, fire, earthquake damage, hazardous materials exposure, incidents involving the safety and/or security of a facility.

INTERNAL DISASTER DIVERSION SHALL NOT BE USED FOR STAFFING ISSUES

- Internal Disaster Diversion shall stop all 9-1-1 transports into the facility.
- The hospital CEO or AOD shall be notified and that notification shall be documented in the Reddinet.
- If the hospital is also a designated base hospital, the hospital should consider immediately transfer of responsibility for on-line control to another base hospital based upon prearranged written agreement and notification to the 9-1-1 provider.
- Internal disaster diversion status shall be entered immediately into the Reddinet.
- If capability exists, hospital shall notify all primary 9-1-1 dispatching agencies.
- Within 72 hours, hospital shall advise ICEMA and the State Department of Health Services in writing (e-mail is acceptable) of the reasons for internal disaster and how the problem was corrected. The written notification shall be signed by the CEO or delegated responsible individual.

EXCEPTIONS TO NEURO AND TRAUMA DIVERSION ONLY:

- Basic Life Support (BLS) ambulances shall not be diverted.
- Ambulances on hospital property shall not be diverted.
- Patients exhibiting unmanageable problems, e.g., unmanageable airway, uncontrolled hemorrhage, cardiopulmonary arrest, in the field shall be transported to the closest emergency department regardless of diversion status.



BED DELAY PATIENT DESTINATION POLICY (San Bernardino County High Desert Area Only)

PURPOSE

A responsibility of an EMS agency is to assure that emergency patients requesting emergency medical care through the 9-1-1 system receive assistance and transport as quickly as possible. This is accomplished in part by requiring response time standards for all 9-1-1 providers, public and private sectors. Bed delay is threatening timely responses to such calls in the High Desert.

ICEMA protocol currently allows 9-1-1 responders to consider patient request when such request will not take the ambulance out of the service area for an extended period of time and when the condition of the patient allows transport to other than the closest appropriate emergency department.

This policy is to ensure timely responses to 9-1-1 calls and sets forth destination policies for transport to St. Mary Medical Center, Victor Valley Community Hospital and Desert Valley Hospital when the 9-1-1 response system falls below a system status level that delays timely responses to 9-1-1 calls.

AUTHORITY

Health & Safety Code, Division 2.5, Chapter 4, Local EMS Agency, Section 1797.220 and Chapter 5, Medical Control, Section 1798.

DEFINITIONS

Bed Delay: Ambulance units are determined to be on bed delay if the patient has not been removed from the ambulance gurney within twenty-five (25) minutes of arrival at hospital as documented in the ePCR.

High Desert: Exclusive Operation Areas 12, 17, 25 and 16 (excluding area south of intersection Highway 138 and Highway 2 and Wrightwood).

Deployed Ambulance Units: The number of ambulances assigned to provide service within a specific geographic area. This may vary based on provider's deployment plan.

System Status Level: The number of **available** ambulance units in a specific geographic area.

POLICY

1. When forty percent (40%), or higher, of deployed ambulance units in a specific High Desert area (excluding Barstow) are on bed delay with system status level 4 or below, or committed to other 9-1-1 calls, as determined by the dispatch center, transport providers in the High Desert area shall follow the destination policy below:
 - a. Patients shall be transported to the hospital whose emergency department has the least number of ambulances on bed delay as determined by the agency's dispatch center.
 - b. Transporting agencies may not have patients sign "Against Medical Advice" (AMA) forms as a tool to supersede this destination policy. Patients that refuse transport to the suggested facility may sign the AMA form if they choose to self transport.
 - c. Transporting units are not required to honor patient requests when this emergency protocol is implemented.
 - d. When this emergency protocol is implemented, transporters shall note the following on the patient care record:

"EMERGENCY BED DELAY DESTINATION PROTOCOL"

2. The following exceptions apply to the destination policy noted in No. 1:
 - a. Patient **meets trauma center destination criteria** ("*Trauma Triage Criteria and Destination*" Reference #15030).
 - b. Patient meets STEMI center destination criteria ("*STEMI Receiving Center Policy*", Reference #6070).
 - c. Base station direction to other facility.
 - d. Cardiac arrest or unstable patients will be transported to the closest receiving hospital regardless of bed delay.
3. When advised by dispatchers that No. 1 above is not applicable, patient requests may be honored in accordance with "*Patient Refusal of Care or Other Patient Request*", Reference #9100.

4. ICEMA will review all patient care records where destination is determined based on this policy. If a provider does not submit patient care records utilizing the ePCR, the provider must submit a copy of the patient care record to ICEMA within seventy-two (72) hours.



TREATMENT OF PATIENTS WITH AIRBORNE INFECTIONS AND TRANSPORT RECOMMENDATIONS

PURPOSE

To establish a policy for transportation of patients with suspected or known airborne infections within the ICEMA region.

AUTHORITY

California Code of Regulations, Title 8, §5199. Aerosol Transmissible Diseases.

FIELD ASSESSMENT/TREATMENT INDICATORS

Signs and Symptoms (may include)

1. Fever > 100°F (37.8 C).
2. Runny nose, cough, sore throat (or any combination).
3. May or may not have gastrointestinal symptoms.

PROCEDURE

Patient Care

1. Treatment for a symptomatic individual who is a confirmed case or a suspected case of infectious disease is supportive based upon assessment findings.
2. IV fluids and appropriate medications are to be initiated per established protocols.
3. Exacerbation of underlying medical conditions in patients should be considered, thoroughly assessed and treated per established protocols.

Infection Control of Ill Persons During Treatment and Transport

1. EMS personnel should incorporate rapid assessment of potential infectious environment into their scene survey/safety and maintain an index of suspicion for infectious disease when a patient with signs/symptoms consistent with the case definition(s) is encountered.
2. Personal Protective Equipment (PPE) must be immediately accessible and employed by all EMS providers who come into close contact with ill and/or

- infectious patients as outlined in the California ATD Standard. This would include the driver in vehicles with open driving compartments particularly when the patient is receiving aerosolized treatment.
3. All required care should be provided to the patient(s) as indicated by protocol(s).
 4. Patients with suspected or confirmed case-status should be transported as warranted by assessment findings. All patients in acute respiratory distress will be transported. If transport is initiated, symptomatic patients should not be transported with non-symptomatic patients. The patient should be accompanied by a single attendant during transport to limit exposure unless patient treatment needs dictate otherwise.
 5. After thorough assessment and attention to the patient's respiratory status, the patient should be encouraged to wear a surgical mask if it can be tolerated or oxygen mask if indicated. Close monitoring of the patient's respiratory status is required at all times during treatment and transport.

Specific EMS Personal Protective Equipment Standards and Transport Recommendations

1. For EMS personnel treating and/or transporting a patient that meets the case definition of infectious respiratory disease, protection must include wearing a fit-tested N95 respirator (or higher), disposable gloves and eye protection (face shield or goggles).
2. The ambulance ventilation system should be operated in the nonrecirculating mode, and the maximum amount of outdoor air should be provided to facilitate dilution. If the vehicle has a rear exhaust fan, use this fan during transport. If the vehicle is equipped with a supplemental recirculating ventilation unit that passes air through HEPA filters before returning it to the vehicle, use this unit to increase the number of Air Changes per Hour (ACH). Air should flow from the cab (front of vehicle), over the patient, and out the rear exhaust fan. If an ambulance is not used, the ventilation system for the vehicle should bring in as much outdoor air as possible, and the system should be set to nonrecirculating. If possible, physically isolate the cab from the rest of the vehicle, and place the patient in the rear seat.¹
3. Clean hands thoroughly with soap and water or an alcohol-based hand gel before and after all patient contacts.
4. All equipment and surface areas should be thoroughly decontaminated with an anti-bacterial cleaner following each patient contact.

¹ Centers for Disease Control, *MMWR* December 30, 2005 / 54(RR17);1-141



NEEDLE THORACOSTOMY

FIELD ASSESSMENT/TREATMENT INDICATORS

Signs and symptoms of tension pneumothorax may include any or all of the following:

1. Increasing agitation.
2. Progressively worsening dyspnea/cyanosis.
3. Decreased or diminished breath sounds on the affected side.
4. Hypotension.
5. Distended neck veins.
6. Tracheal deviation away from the affected side.
7. Consider in blunt trauma to chest the possibility of bilateral tension pneumothorax if SPO2 remains low with a patent airway or with poor respiratory compliance.

PROCEDURE

1. Explain the procedure to the patient:
 - a. If conscious, place the patient in an upright position if able to tolerate.
 - b. If patient is unconscious or in axial-spinal immobilization, leave supine.
2. Use an approved pre-packaged device. If unable to obtain an approved pre-packaged device utilize the following:
 - a. For patients weighing more than 50kg - 14 or 16 gauge, 2 to 3 1/2 inch needle and cannula.
 - b. For patients weighing less than 50kg - 18g, 1 to 1 1/4 inch needle and cannula.
3. Prepare the area with antiseptic wipes -- second intercostal space, midclavicular line. An alternative needle thoracostomy site may include the fourth or fifth intercostal space, mid-axillary line at nipple level. Caution should be exercised in the later stages of pregnancy

when a higher (3rd) intercostal space should be used to avoid injury to the liver or spleen.

4. Insert needle perpendicular to the chest wall at the level of the superior border of the third rib until pleura is penetrated as indicated by one or more of the following:
 - a. A rush of air.
 - b. Ability to aspirate free air into the syringe.
5. Remove syringe and needle stylet and leave cannula in place with. ~~Add~~ flutter valve.
6. Secure needle hub in place with tape or other approved device.
7. Reassess patient lung sounds and respiratory status immediately and every five (5) minutes thereafter.
- ~~8. An alternative needle thoracostomy site may include the fourth or fifth intercostal space, mid axillary line at nipple level. Caution should be exercised in the later stages of pregnancy when a higher (3rd) intercostal space should be used to avoid injury to the liver or spleen.~~
9. Contact Base Station with patient update.



NEEDLE CRICOTHYROTOMY

FIELD ASSESSMENT/TREATMENT INDICATORS

1. Upper airway obstruction with severe respiratory distress.
2. When unable to ventilate utilizing conventional airway maneuvers or devices.

ABSOLUTE CONTRAINDICATION

~~Patients less than two (2) years of age.~~
~~Transection of the distal trachea~~

PROCEDURE

1. Support ventilations with appropriate basic airway adjuncts. Use in-line cervical stabilization as needed. Explain procedure to a conscious patient.
2. Assemble appropriate equipment and pre-oxygenate prior to attempting procedure.
 - a. Locate the soft cricothyroid membrane between the thyroid and cricoid cartilage.
 - b. Insert appropriately sized needle and verify position. (An approved needle cricothyroid device may be utilized per manufacture's guidelines.)
 - i. Adult 10-15 gauge needle.
 - ii. Pediatric 12-15 gauge needle.
 - c. Per manufacturer's recommendation, attach cannula adapter to BVM or use Translaryngeal Jet Ventilation (TLJV) device and ventilate with either BVM or TLJV (one (1) second on and three (3) seconds off).
 - d. Assist with exhalation by intermittently pressing downward and upward on chest wall if needed. Consider adding a 3-way stopcock or y-connector inline to facilitate exhalation.
3. Document verification of needle placement.
4. Monitor end-tidal CO₂ and/or pulse oximetry and chest expansion. [For agencies](#)

with waveform capnography document the shape of the wave and the capnography number in mmHG

5. Contact Base Station if unable to adequately ventilate patient and transport immediately to closest hospital for airway management.

~~5.6.~~

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 24 hours of the incident. Forms are available as part of the protocol manual and on the ICEMA website.~~



TRANSCUTANEOUS CARDIAC PACING

FIELD ASSESSMENT/TREATMENT INDICATORS

1. ~~Unstable~~**Symptomatic** Bradycardia - see Protocol Reference #11040 Bradycardias – Adult.
2. ~~Witnessed asystole—see Protocol Reference #11070 Cardiac Arrest—Adult.~~
3. Patient 8 years of age and younger - **not indicated**.

PROCEDURE IN SYMPTOMATIC BRADYCARDIA

1. Start at rate of 60 and adjust the output control starting at 0 milli amperes until capture is noted. Assess peripheral pulses and confirm correlation with paced rhythm.
2. Determine lowest threshold response by turning the output control down, until capture is lost, and then turn it back up slightly until capture is noted again. Maintain the output control at this level.
3. Assess peripheral pulses and confirm correlation with paced rhythm. Reassess patient for signs of adequate perfusion
4. Any movement of patient may increase the capture threshold response; the output may have to be adjusted to compensate for loss of capture.
5. With signs of inadequate tissue perfusion, increase rate (**not to exceed 100**) and contact Base Station.
6. Consider Midazolam 1-2mg slow IV push or 1-2mg IN if patient is awake and alert.
7. Consider Morphine Sulfate titrate in 1-2mg increments up to 10mg for patient complaint of pain with signs of adequate tissue perfusion.
8. Contact Base Station to advise of patient condition.

PROCEDURE IN ASYSTOLE

1. Start at maximum energy output on the pacing device.
2. Follow above procedures #2 - 4.
3. If pacing is ineffective, contact Base Station and consider termination of

resuscitative efforts.

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 24 hours of the incident. Forms are available as part of the protocol manual and on the ICEMA website.



SYNCHRONIZED CARIOVERSION

FIELD ASSESSMENT/TREATMENT INDICATORS

1. Unstable V-Tach or Wide Complex Tachycardias (sustained).
2. Unstable Narrow Complex Tachycardias.
3. Unstable Atrial Fibrillation/Atrial Flutter.
3. Patient 8 years of age and younger - **not indicated.**

PROCEDURE

1. Monitor the patient in a lead that maximizes upright R wave and minimizes T wave, and observe location of synchronized marker on the R wave.
2. Consider Midazolam 1-2mg slow IV push or 1-2mg IN for all conscious patients.
3. Consider Morphine Sulfate titrated in 1-2mg increments up to 10mg slow IV push for patient complaint of pain with signs of adequate tissue perfusion.
4. Select initial energy level setting at 100 joules or a clinically equivalent biphasic energy level per manufacture guidelines.
5. Procedure may be repeated at 200, 300 & 360 joules or a clinically equivalent biphasic energy level per manufacture guidelines.
6. If cardioversion is successful, continue to monitor the patient and refer to the appropriate corresponding protocol.
7. In Radio Communication failure or with Base Station order, repeated cardioversion attempts at 360 joules or a clinically equivalent biphasic energy level per manufacture's guidelines may be attempted.
8. If ventricular fibrillation should occur during preparation or following cardioversion, immediately:
 - a. Turn off synchronizer and check pulse.

- b. Charge unit to 200 - 360 joules, or clinically equivalent biphasic energy level per manufacture guidelines.
 - c. Defibrillate per the appropriate corresponding protocol.
9. Document all reassessments of rhythm and pulses.



AUTOMATIC EXTERNAL DEFIBRILLATION (AED) - BLS

PURPOSE

To identify guidelines for the use of the AED for all patients one (1) year of age or older in cardiac arrest. The overall goal of the AED program is to provide for rapid defibrillation and transfer of patients to an ALS provider as quickly as possible.

FIELD ASSESSMENT/TREATMENT INDICATORS

All of the following criteria must be met prior to applying the AED machine:

1. Unresponsive, ~~apneic and pulseless~~ pulseless and apneic (~~agonal respirations of less than six (6) per minute~~ "gaspings" breaths).
2. One (1) year of age or older.
3. Have an apparent body temperature greater than 86 degrees F.

If patient meets the criteria per Protocol Reference #12010, Determination of Death, or Protocol Reference #12020, Withholding Resuscitation, AED application is not indicated.

PROCEDURE

1. Initiate immediate CPR, ~~for two (2) minutes if time from arrest is over five (5) minutes.~~
2. Power on the AED.
- ~~2.3.~~ Place appropriate pads according to manufacturer's guidelines. If the AED is equipped with a pediatric attenuator, it should be utilized for children between one (1) and nine (9) years of age. CPR is not to be interrupted except briefly for rhythm assessment. (For children between one (1) and nine (9) years of age, pediatric pads are to be used according to manufacturers' guidelines, if available. If not using pediatric pads, follow all manufacturers' guidelines for use on the pediatric patient).
- ~~3.4.~~ Check-Analyze rhythm.
 - a. If shocks are required, each shock should be immediately followed by two (2) minutes of CPR.

- b. If additional shocks are not required:
 - i. If patient begins to move, maintain appropriate airway and oxygenation; obtain and monitor vital signs throughout care.
 - ii. If patient remains unresponsive, ~~apneic and pulseless~~pulseless and apneic, continue CPR for two (2) minutes and ~~reassess~~reanalyze.
- 4.5. Continue care as indicated by patient condition until ALS providers assume care or patient starts to move.
- 5.6. BLS agencies may only transfer care to a provider of equal or greater level. If a BLS transport agency is not an approved AED service provider, the AED personnel must accompany the patient with the appropriate equipment.

DOCUMENTATION AND QUALITY IMPROVEMENT

1. BLS agencies shall complete an ICEMA approved patient care report form and data collection device per Protocol Reference #2010, Requirements for Patient Care Records.
2. PS-D agencies must provide documentation on ICEMA approved form.
3. Use of the AED shall be evaluated by the provider agency through their QI Plan. All data will be used to compile their annual report to ICEMA.

SPECIAL NOTE

AED units should be programmed to the latest ~~2005-2010~~2010 AHA Guidelines for CPR and Emergency Cardiac Care standards for defibrillation for adults and pediatrics no later than ~~June 30, 2007~~December 31, 2011. Until personnel and equipment have been updated to the new guidelines, agencies should continue to perform CPR as trained and follow the AED prompts as directed.



AIRWAY OBSTRUCTION - ADULT

FIELD ASSESSMENT/TREATMENT INDICATORS

1. Universal sign of distress.
2. Alteration in respiratory effort and/or signs of obstruction.
3. Altered level of consciousness.

BLS INTERVENTION - RESPONSIVE

1. Assess for ability to speak or cough (e.g. "Are you choking?").
2. If unable to speak, administer abdominal thrusts/~~Heimlich maneuver~~ (if the rescuer is unable to encircle the victim's abdomen or the patient is in the late stages of pregnancy, utilize chest thrusts)~~or chest thrusts for pregnant or obese patients~~ until the obstruction is relieved or patient becomes unconscious.
3. After obstruction is relieved, reassess and maintain ABC's.
4. Administer oxygen therapy; if capable obtain O2 saturation, per Protocol Reference #10170, Pulse Oximetry.
5. If responsive, place in position of comfort. If uninjured but unresponsive with adequate respirations and pulse, place on side in recovery position.

BLS INTERVENTION - UNRESPONSIVE

1. Position patient supine (for suspected trauma, maintain in-line axial spinal stabilization).
2. ~~Open airway with, head tilt chin lift (for suspected trauma use jaw thrust). Remove object if visible. Assess for presence and/or effectiveness of respiration for no more than ten (10) seconds. Begin immediate CPR at a 30:2 ratio for two (2) minutes.~~
3. ~~If apneic, attempt two (2) ventilations with bag valve mask. If no chest rise, reposition airway and reattempt. Each time the airway is opened to ventilate, look for an object in the victim's mouth and if found, remove it.~~
4. If apneic and able to ventilate, provide one (1) breath every five (5) to six (6)

seconds.

~~5. 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.~~

~~6.5.~~ If available, place AED per Protocol Reference #10130.

ALS INTERVENTION – UNRESPONSIVE

1. If apneic and able to ventilate, establish advanced airway.
2. If obstruction persists, visualize with laryngoscope and remove visible foreign body with Magill forceps and attempt to ventilate.
3. If obstruction persists and unable to ventilate, consider Needle Cricothyrotomy per Protocol Reference #10070.



BRADYCARDIAS - ADULT

ASYMPTOMATIC STABLE BRADYCARDIA

FIELD ASSESSMENT/TREATMENT INDICATORS

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

BLS INTERVENTIONS

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

ALS INTERVENTIONS

1. Establish vascular access if indicated. If lung sounds clear, consider bolus of 300cc NS, may repeat.
2. ~~2.~~ Place on cardiac monitor and obtain rhythm strip for documentation with copy to _____ receiving hospital. If possible, obtain a 12-lead EKG to better define the rhythm.
- 2.3. Monitor and observe for change in patient condition.

SYMPTOMATIC UNSTABLE BRADYCARDIA

FIELD ASSESSMENT/TREATMENT INDICATORS

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

BLS INTERVENTIONS

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

3. Administer oxygen as clinically indicated.

ALS INTERVENTIONS

~~1. Consider advanced airway, as indicated.~~

~~2.1.~~ Administer IV bolus of 300cc. Maintain IV rate at 300cc/hr if lungs remain clear to auscultation.

~~3.2.~~ Place on Cardiac monitor and obtain rhythm strip for documentation. If possible, obtain a 12-lead EKG to better define the rhythm. Provide copy to receiving hospital.

4. Administer Atropine 0.5mg IVP. May repeat every five (5) minutes up to a maximum of 3mg or 0.04mg/kg.

5. If Atropine is ineffective or Consider TCP, per Protocol Reference #10110, instead of Atropine for documented MI, 3rd degree AV Block with wide complex and 2nd degree Type II AV Block, utilize Transcutaneous Cardiac Pacing, per Protocol Reference #10110.

~~6. Attempt transcutaneous cardiac pacing of a bradycardic rhythm with continued symptoms of inadequate tissue perfusion.~~

~~7.6.~~ Consider Dopamine 400mg in 250 cc of NS to infuse at 5-20 mcg/ kg/min, titrated to sustain a systolic B/P greater than 90mmHg, and for signs of inadequate tissue perfusion/shock.

~~8.7.~~ Contact Base Station if interventions are unsuccessful.



TACHYCARDIAS - ADULT

FIELD ASSESSMENT/TREATMENT INDICATORS

1. Signs and symptoms of poor perfusion.
2. Heart rate greater than 150 bpm.

BLS INTERVENTIONS

1. Recognition of heart rate greater than 150 bpm.
2. Reduce anxiety; allow patient to assume position of comfort
3. Administer oxygen as clinically indicated
4. Consider transport to closest hospital or ALS intercept

ALS INTERVENTIONS

Determine cardiac rhythm, obtain a 12-lead EKG to better define rhythm if patient condition allows, establish vascular access and proceed to appropriate intervention(s).

Narrow Complex Supraventricular Tachycardia (SVT)

- Initiate NS bolus of 300ml IV.
- Valsalva/vagal maneuvers
- Adenosine 6mg rapid IV push, followed by 20ml NS rapid infusion. If no conversion, may repeat twice at 12mg followed by 20ml NS rapid infusion.
- If adenosine is eneffective, —Cconsider Verapamil 5mg slow IV over three (3) minutes. May repeat every 15 minutes to a total dose of 20mg.
- Consider Procainamide 20mg/min IV for suspected Wolf-Parkinsons White; may repeat until arrhythmia suppressed, symptomatic hypotension, QRS widens by more than 50% or maximum dose of 17mg/kg given. If arrhythmia suppressed, begin infusion of 2mg/min.
- Synchronized cardioversion; refer to Protocol Reference #10120.

- Contact Base Station.

V-Tach or Wide Complex Tachycardias (Intermittent or Sustained)

1. Consider Adenosine administration if the rate is regular and the QRS is monomorphic. Adenosine is contraindicated for unstable rhythms or if the rhythm is an irregular or polymorphic wide complex tachycardia.

~~1.2.~~ Procainamide 20mg/min IV; may repeat until arrhythmia suppressed, symptomatic hypotension, QRS widens by more than 50% or maximum dose of 17mg/kg given. If arrhythmia suppressed, begin infusion of 2mg/min.

~~2.3.~~ If Procainamide administration is contraindicated or fails to convert the rhythm, consider Lidocaine 1mg/kg slow IV. May repeat at 0.5mg/kg every ten (10) minutes until maximum dose of 3mg/kg given and initiate infusion of 2mg/min.

4. Polymorphic VT should receive immediate unsynchronized cardioversion (defibrillation). Consider infusing Magnesium 2gms in 100ml of NS over five (5) minutes if prolonged QT is observed during sinus rhythm post-cardioversion.

~~3.~~ Magnesium 2gms in 100ml NS infuse over five (5) minutes for Torsades de Pointe.

~~4.~~ Consider Adenosine administration if arrhythmia is suspected to be of supraventricular origin.

5. Precordial thump for witnessed spontaneous Ventricular Tachycardia, if defibrillator is not immediately available for use.

6. Synchronized cardioversion; refer to Protocol Reference #10120.

~~7.~~ If arrhythmia suppressed, or cardioversion unsuccessful, administer Lidocaine 1mg/kg slow IV. May repeat at 0.5mg/kg every ten (10) minutes until maximum dose of 3mg/kg is given, then initiate infusion at 2mg/min.

~~—~~ Contact Base Station.

Atrial Fib/Flutter

1. Transport to appropriate facility.

~~If condition deteriorates, proceed to the following interventions:~~

~~2.~~ If condition deterioratesFor patients who are hemodynamically unstable, proceed to Synchronized cardioversion; refer to Protocol- Reference #10120.

~~If symptoms have been present for greater than forty eight (48) hours, electric or pharmacologic cardioversion should not be attempted unless the patient is unstable.~~

~~2.3. Contact Base Station.~~

- ~~a. Synchronized cardioversion; refer to Protocol Reference #10120.~~
- ~~b. For Narrow Complex rhythms only, give Verapamil 5mg slow IV over three (3) minutes. May repeat in fifteen (15) minutes at 10mg slow IV over three (3) minutes.~~
- ~~c. Procainamide 20mg/min IV. May repeat until arrhythmia suppressed, symptomatic hypotension, QRS widens by greater than 50% or maximum dose of 17mg/kg given. If arrhythmia suppressed, begin infusion of 2mg/min.~~
- ~~d. Contact Base Station.~~



SUSPECTED ACUTE MI

FIELD ASSESSMENT/TREATMENT INDICATORS

1. Chest Pain (Typical or Atypical).
2. Syncopal episode.
3. History of previous AMI, Angina, heart disease, or other associated risk factors.
- ~~4. History of heart disease.~~
- ~~5. Angina.~~

BLS INTERVENTIONS

1. Recognition of signs/symptoms of suspected AMI.
2. Reduce anxiety, allow patient to assume position of comfort.
3. O₂ as clinically indicated.
4. Obtain Oxygen saturation, ~~if trained.~~
5. May assist patient with self-administration of Nitroglycerin and/or Aspirin.

ALS INTERVENTIONS

- ~~1. Obtain rhythm strip for documentation.~~
- ~~2.1. Aspirin 162mg.~~
- ~~3.2. Consider early vascular access.~~
- ~~4.3. For patients with chest pain, signs of inadequate tissue perfusion and clear breath sounds, give 300ml NS bolus, may repeat.~~
- ~~5.4. 12 Lead Technology :~~
 - ~~a. If patient condition is critical, peri-arrest, do not delay transport to obtain ECG.~~

- b.a. Obtain 12 Lead ECG. Do not disconnect 12-lead cables until necessary for transport.
- e.b. If signs of inadequate tissue perfusion or if inferior wall infarct is suspected, ~~consider obtaining~~ obtain a right-~~chest~~side 12 Lead (V4R).
- d.c. If right ventricular infarct (RVI) is suspected with signs of inadequate tissue perfusion, consider 300ml NS bolus, may repeat. Early consultation with Base Station or receiving hospital in rural areas is recommended. (Nitrates ~~should be avoided~~ are contraindicated in the presence of ~~suspected~~ RVI or hypotension).
- e.d. With documented ST segment elevation in two (2) or more contiguous leads, contact Base Station for destination decision while preparing patient for expeditious transport. Reference Protocol #6070, Cardiovascular Stemi Receiving Centers.
- f.e. Repeat 12 Lead at regular intervals, but do not delay transport of patient. If patient is placed on a different cardiac monitor for transport, transporting provider should obtain an initial 12-lead on their cardiac monitor and leave 12-lead cables in place throughout transport.
- 6.5. Nitroglycerin 0.4mg sublingual/transmucosal, may repeat in three (3) minute intervals if signs of adequate tissue perfusion are present. ~~Consider Morphine Sulfate for pain management when N~~ Nitroglycerin is contraindicated if there are (signs of inadequate tissue perfusion or if recent use of sexual enhancement medications have been utilized within the past forty-eight [48] hours). Utilize MS for pain control when Nitroglycerin is contraindicated.
- 7.6. Morphine Sulfate 2mg IV, may repeat every three (3) minutes to total 10mg. Consider concurrent administration of Nitroglycerin with Morphine Sulfate if there is no pain relief from the initial Nitroglycerin administration. Contact Base Station for further Morphine Sulfate orders.
- 8.7. Consider establishing a saline lock ~~enroute on same side as initial IV~~ as a secondary IV site.
9. ~~Complete thrombolytic checklist, if time permits.~~
8. ~~Contact Base Station for further Morphine Sulfate orders~~ Make early STEMI notification to the receiving STEMI center.
10. _____

~~11.9.~~ In Radio Communication Failure (RCF) may give up to an additional 10mg Morphine Sulfate in 2mg increments with signs of adequate tissue perfusion.



CARDIAC ARREST - ADULT

FIELD ASSESSMENT/TREATMENT INDICATORS

Cardiac arrest in a non-traumatic setting.

BLS INTERVENTIONS

1. Assess patient, ~~maintain appropriate airway and~~ begin CPR according to current AHA Guidelines, and, maintain appropriate airway
 - a. Compression rate shall be 100/minute utilizing 30:2 compression-to-ventilation ratio for synchronous CPR prior to placement of advanced airway.
 - a.b. Ventilation rate shall NOT exceed 12/min. Ventilatory volumes shall be the minimum necessary to cause sufficient to cause adequate chest rise.
 - b.c. Compression rate shall be 100/minute utilize 30:2 compression to-ventilation ratio for synchronous CPR prior to placement of advanced airway.
2. If available, place AED and follow Protocol Reference #10130. CPR is **not** to be interrupted except briefly for rhythm assessment.

ALS INTERVENTIONS

1. Initiate CPR ~~for two (2) minutes if no CPR was performed prior to arrival and down time is greater than five (5) minutes while applying the cardiac monitor.~~
2. Determine cardiac rhythm and proceed to appropriate intervention defibrillate if indicated. Begin a two minute cycle of CPR.
- 2.3. Obtain IV/IO access.
4. Establish advanced airway when resources are available, with minimal interruption to CPR. After advanced airway established, compressions would then be continued at 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.

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

3. _____

4. _____

Ventricular Fibrillation/Pulseless Ventricular Tachycardia

1. Defibrillate at 360 joules for monophasic or biphasic equivalent per manufacture. If biphasic equivalent is unknown use ~~200 joules~~maximum available.
2. Perform CPR for two (2) minutes after each defibrillation, without delaying to assess the post-defibrillation rhythm.
3. Administer Epinephrine 1.0mg IV/IO during each two (2) minute cycle of CPR after ~~each every~~ defibrillation unless capnography indicates possible ROSC.
4. Reassess rhythm ~~;~~ after each two (2) minute cycle of CPR. If VF/VT persists, defibrillate as above.
5. After two (2) cycles of CPR, consider ~~administering~~ Lidocaine 1.5mg/kg IV/IO. May repeat at 0.75mg/kg every five (5) minutes to maximum dose of 3.0mg/kg.
6. If patient remains in pulseless VF/VT after five cycles of CPR, consult base station.

Pulseless Electrical Activity (PEA) or Asystole

1. Assess for reversible causes and initiate treatment.
2. Continue CPR with evaluation of rhythm every two (2) minutes.
3. Administer fluid bolus of 300ml NS IV, may repeat.
4. Administer Epinephrine 1.0mg IV/IO during each two (2) minute cycle of CPR after each rhythm evaluation.
5. ~~Consider administration of Atropine 1.0mg IV/IO after second two (2) minute cycle of CPR. May repeat twice for a total of 3.0mg~~
6. ~~Consider termination of efforts if patient remains in PEA <60, asystole (confirm in two leads), or other agonal rhythm after successful intubation and initial medications without a reversible cause identified.~~

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

1. ~~Insert NG/OG Tube to relieve gastric distension per Protocol Reference #10080, Insertion of NG/OG Tube. Obtain blood glucose, if indicated; administer Dextrose 50% 25gms IV.~~
2. ~~Obtain blood glucose. If indicated, administer Dextrose 50% 25gms IV. Insert NG/OG Tube to relieve gastric distension per Protocol Reference #10080, Insertion of NG/OG Tube.~~
3. Naloxone 2.0mg IV/IO/IM for suspected opiate overdose.

Termination of Efforts in the Prehospital Setting

1. The decision to terminate efforts in the field should take into consideration, first, the safety of personnel on scene, and then family and cultural considerations.
- ~~1.2. Consider terminating resuscitative efforts in the field if ALL of the following criteria are met:~~
 - ~~a. No shocks were delivered~~
 - ~~b. No ROSC after a minimum of ten (10) minutes of ACLS~~
3. Base station contact is required to terminate resuscitative measures. A copy of the ECG should be attached to the PCR for documentation purposes.

~~Consider terminating resuscitative efforts in the field if ALL of the following criteria are met:~~

- ~~Arrest was not witnessed~~
- ~~Adequate bystander CPR was not provided~~
- ~~No shocks were delivered~~
- ~~No ROSC after a minimum of ten (10) minutes of ACLS~~

NOTE

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

2. Utilize continuous waveform capnography, if available, to identify loss of circulation.
- ~~1.3.~~ For continued signs of inadequate tissue perfusion after successful resuscitation a Dopamine infusion of 400mg in 250ml of NS may be initiated at 5-~~20~~1010 mcg/kg/min IV to maintain signs of adequate tissue perfusion.
- ~~2.~~ May initiate Lidocaine infusion of 2mg/min with documented conversion from VT/VF.
- ~~3.4.~~ Base station physician may order additional medications or interventions as indicated by patient condition.
- ~~4.~~ Base station contact is required to terminate resuscitative measures. A copy of the ECG should be attached to the PCR for documentation purposes.



SHOCK (NON-TRAUMATIC)

PRIORITIES

1. ~~ABC's.~~
2. ~~Identify signs of shock.~~
3. ~~Determine need for fluid replacement.~~
4. ~~Consider early transport.~~

FIELD ASSESSMENT/TREATMENT INDICATORS

1. Patient exhibits signs/symptoms of shock.
2. Determine mechanism of illness.
3. History of GI bleeding, vomiting, diarrhea.
4. Consider hypoglycemia or narcotic overdose.
5. ~~Hypothermia preventative measures.~~

~~ALS INTERVENTIONS~~PARAMEDIC SUPPORT PRIOR TO BASE STATION CONTACT

1. ~~Maintain airway with appropriate adjuncts, including advanced airway if indicated. Obtain O2 saturation on room air or on home O2 if possible.~~
2. ~~Oxygen therapy as clinically indicated. Obtain oxygen saturation on room air, unless detrimental to patient condition. Be prepared to support ventilations with appropriate airway adjuncts.~~
3. ~~Place on cardiac monitor.~~
4. ~~Place in trendelenburg if tolerated.~~
5. ~~Obtain vascular access.~~

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6. ● If hypotensive or has signs or symptoms of inadequate tissue perfusion give fluid challenges:

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- a. In the adult give 500ml IV bolus, may repeat once to sustain a B/P>90mmHg or until tissue perfusion improves.
- b. In the pediatric patient give 20ml/kg IV bolus, may repeat once for tachycardia, change in central/peripheral pulses, limb temperature transition, altered level of consciousness.

7. ● For B/P>90mmHg and no respiration difficulties and adequate signs of tissue perfusion:

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- a. In adults, maintain IV rate at 150ml/hour.
- b. In pediatric patients, maintain IV at TKO.

BASE STATION MAY ORDER

- *1. Establish 2nd large bore IV enroute.**
- *2. Dopamine infusion at 5-20mcg/kg/min if hypotension persists despite fluid administration.**

**May be done during radio communication failure.*