| Virtual | Pre-hospital Services Committee Agenda | February 10, 2022 9:30 a.m. |
|---|---|---|
| | | |
| **I.** | **Introductions** | |
| **II.** | **Approve Agenda** | |
| **III.** | **Minutes** | |
| **IV.** | **Medical Issues** | |
| | A. Coronavirus Update | Dr. Shepherd/Steve Carroll |
| **V.** | **New Business** | |
| | A. 1XX– Hospital EMS Surge Assistance | Chris Rosa |
| | B. 321 – MICN Authorization Criteria | Karen Beatty |
| | C. 322 – MICN Re-Authorization Criteria | Karen Beatty |
| | D. 324 – MICN Authorization for Re-Activation | Karen Beatty |
| | E. 420 – Receiving Hospital Criteria | Chris Rosa |
| | F. 603 - Refusal of EMS Services | Andrew Casey |
| | G. 630 – (New) Pre-hospital Infectious Disease | Kyle Culkin |
| | H. 705.01-Trauma Treatment Guidelines | Karen Beatty |
| | I. 705.09 Chest Pain | Andrew Casey |
| | J. 705.11 Crush Injuries | Andrew Casey |
| | K. 705.17 Nerve Agent | Chris Rosa |
| **VI.** | **Old Business** | |
| | A. Other | |
| **VII.** | **Informational/Discussion Topics** | |
| | A. 722 – Interfacility Transport of Patient with Patient with IV Heparin | Adriane Gil-Stefansen |
| | B. 727 – Transcutaneous Pacing | Andrew Casey |
| | C. 729 – Supraglottic Airway Devices | Dr. Shepherd |
| | D. 1405 – Trauma Triage and Destination | Karen Beatty |
| **VIII.** | **Policies for Review** | |
| | A. 410 – ALS Base Hospital Approval Process | |
| | B. 705.05 – Bites and Stings | |
| | C. 705.06 - Burns | |
| | D. 715 – Needle Thoracostomy | |
| **IX.** | **Agency Reports** | |
| | A. Fire Departments | |
| | B. Ambulance Providers | |
| | C. Base Hospitals | |
| | D. Receiving Hospitals | |
| | E. Law Enforcement | |
| | F. ALS Education Program | |
| | G. EMS Agency | |
| | H. Other | |
| **X.** | **Closing** | |
| | | |

| Virtual | Pre-hospital Services Committee<br>Minutes | October 14, 2022<br>9:30 a.m. |
|---|---|---|

| Topic | Discussion | Action | Approval |
|---|---|---|---|
| **II. Approve Agenda** | | Approved | Motion: Kristen Shorts<br>Seconded: Ira Tilles<br>Passed unanimous |
| **III. Minutes** | | Approved | Motion: Ira Tilles<br>Seconded: Kristen Shorts<br>Passed unanimous |
| IV. **Medical Issues** | | | |
| A. Coronavirus Update | Steve Carroll– Cases are leveling off. | | |
| **V. New Business** | | | |
| A. Other | | | |
| **VI. Old Business** | | | |
| A. 335 – Out of County Internship | Chris presented the changes made to this policy. He has made minor formatting corrections. Timeframe was added under IV:A.<br>Dr. Larsen would like to see all students given priority by the different agencies and not just take their own employees. Chief Williams feels we should always prioritize county residents over the out of county students. | Option 1 is Approved | Motion: Chris Sikes<br>Seconded: Tom O'Conner<br>Passed unanimous |
| B. 722 – Interfacility IV Heparin and NTG | Adriane added a QR code. Dr. Larsen asked if transfers can be flagged. Adriane stated that she will be tracking them. | Adriane will set up a trigger list for this policy. | Motion: Kristin Shorts<br>Seconded: Kyle Brooks<br>Passed unanimous |
| **VII. Informational** | | | |
| A. 420 – Receiving Hospital Criteria | | Approved with minor formatting issues | |
| B. 705.03 – Altered Neurologic Function | | Approved | |
| C. 705.26 – Suspected Stroke | | Approved | |
| D. 726 – 12 Lead ECG | | Approved | |

| | | | |
|---|---|---|---|
| | | Add a dash between 12 and lead "12-Lead"<br>Add 7 post ROSC | |
| **VIII. Policies for review** | | | |
| A. 332 – EMS Personnel Background Check | | Approved | Motion: Ira Tilles<br>Seconded: Todd Larsen<br>Passed unanimous |
| B. 606 – Withholding/Termination of Resuscitation and DOD | | Adriane will work on formatting and consistency issues. | Motion: Ira Tilles<br>Seconded: Todd Larsen<br>Passed unanimous |
| C. 613 – Do Not Resuscitate | | Approved | Motion: Ira Tilles<br>Seconded: Todd Larsen<br>Passed unanimous |
| D. 704 – Guidelines for Base Hospital Contact | | Approved | Motion: Ira Tilles<br>Seconded: Todd Larsen<br>Passed unanimous |
| E. 705.16 – Neonatal Resuscitation | | Andrew will work to make this policy "clearer". No change to intent.<br>Approved | Motion: Ira Tilles<br>Seconded: Todd Larsen<br>Passed unanimous |
| **X. Agency Reports** | | | |
| A. Fire departments | **VCFPD** – none<br>**VCFD-** none<br>**OFD** – none<br>**Fed. Fire** – none<br>**SPFD** – none<br>**FFD** – none | | |
| B. Transport Providers | **AMR/GCA/LMT** – none<br>**AIR RESCUE – none** | | |
| C. Base Hospitals | **AHSV** – none<br>**LRRMC** – E.R. construction will go on for the next 3 years. Kyle Brooks is leaving and will be working at St. Johns.<br>**SJRMC –** Jenny Brock is leaving, and Kyle Blum will be her replacement.<br>**VCMC** – Keiti King is leaving for a new opportunity with a school district. | | |
| D. Receiving Hospitals | **PVH –** none<br>**SPH** – none | | |

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|---|---|---|---|---|
| | | **CMH** – New E.R. Director is Brett McClure.<br>**OVCH** – none | | |
| E. | Law Enforcement | **VCSO –**none<br>**CSUCI PD –**.none<br>**Parks –** New Medical Director from San Diego, Dr. Mathew Thomas | | |
| | F. ALS Education Programs | **Ventura College** – Advisory Committee is December 10, 2021 @ 1300. In February we will be looking for preceptors. | | |
| | G. EMS Agency | **Chris –** none<br>**Dr. Shepherd –** Hand Tevy utilization needs to increase.<br>**Steve** – none<br>**Katy** –none<br>**Karen** – none<br>**Julie** –none<br>**Randy** – none<br>**Adriane** – Happy E.R. Nurses Week | | |
| | H. Other | | | |
| | **XI. Closing** | **Meeting adjourned at 11:30** | | Motion: Ira Tilles<br>Seconded: Todd Larsen<br>Passed unanimous |
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| COUNTY OF VENTURA<br>HEALTH CARE AGENCY | EMERGENCY MEDICAL SERVICES<br>POLICIES AND PROCEDURES |
|---|---|
| Policy Title:<br>Hospital EMS Surge Assistance | Policy Number<br>1XX |
| APPROVED:<br>Administration: Steve L. Carroll, Paramedic | Date: DRAFT |
| APPROVED:<br>Medical Director: Daniel Shepherd, M.D. | Date: DRAFT |
| Origination Date:<br>Date Revised:<br>Date Last Reviewed:<br>Review Date: | Effective Date: |

I. PURPOSE: To manage 911 ambulance resources during periods of prolonged ambulance patient offload times (APOT) at hospital emergency departments (EDs). This will be accomplished through coordination with local ambulance and fire resources, in addition to emergency department personnel and hospital administration.

II. AUTHORITY: California Health and Safety Code, Division 2.5, Sections 1797.220 and 1798; California Code of Regulations, Title 22, Sections 100062 and 100170

A. POLICY:

1. This policy will be implemented in coordination with the Ventura County EMS Agency (VCEMS), the impacted hospital(s), and prehospital provider agencies.
2. The goal of this policy is to allow for transporting ambulances to offload patients and return to service as soon as possible.
3. The hospital is not relieved of its responsibilities outlined in the Emergency Medical Treatment and Active Labor Act,
4. While prehospital personnel may assist with monitoring patients in the ambulance offload area, patient care is ultimately the responsibility of the hospital and hospital personnel.
5. Hospital administration shall be notified by emergency department personnel any time this policy is implemented at a receiving hospital.
6. A designated agency representative (AREP) or EMS Agency personnel will coordinate all prehospital resources utilized in the ambulance offload area and will determine when prehospital resources are no longer needed for monitoring of ambulance patients.

7. Each EMT and Paramedic may observe up to four (4) patients in the ambulance offload area, and will provide care to patients, if/when needed, per their scope of practice.
8. Paramedics staffing the ambulance offload area may monitor patients requiring ALS or BLS level care. EMTs may monitor patients requiring BLS level of care.
   a. During extenuating circumstances or extended periods of heavy surge and delays, EMTs may be authorized by the VCEMS Medical Director to monitor ALS level patients. This authorization will be made at the time of need and will be done in coordination with the impacted facility and prehospital provider agencies.
~~1.~~9. Paramedics or EMTs staffing the ambulance offload area will immediately notify emergency department personnel anytime there are signs of deterioration in patient(s) awaiting offload

B. Criteria for implementation of this policy:

1. All available treatment areas, including hallway beds, within the emergency department are fully occupied and ambulance patients are being managed on ambulance gurneys (inside or outside of the emergency department), and;
2. Three (3) or more ambulances are waiting to offload patients for greater than one (1) hour; or
3. Three or more ALS level patients are being managed by prehospital personnel waiting to be triaged/accepted by emergency department personnel.

## IV. PROCEDURE

A. Hospital emergency department leadership or prehospital provider agency will contact the EMS Agency Duty Officer when criteria outlined in Section III.B are met.

B. EMS Agency will work with emergency department personnel and prehospital provider agency to determine the need for implementation, and appropriate prehospital resources that may be necessary.

C. If it is determined that additional prehospital resources will respond to the impacted emergency department to facilitate staffing of an ambulance offload area, an agency representative will be requested to consult with EMS Agency Duty Officer and emergency department personnel. The AREP will be the primary coordinator of prehospital resources at an impacted emergency department. The AREP may employ different strategies to manage these resources and achieve desired outcomes:

1. An ambulance crew or paramedic supervisor may be assigned to the ambulance offload area with the intent of observing several patients at the same time. Under this construct, transporting ambulances would offload their patients into the ambulance offload area and give report to the assigned crew, transfer care, and return to service.
2. An ALS fire resource (squad, engine or overhead) may be assigned to the ambulance offload area with the intent of observing several patients at the same time. Transporting ambulances would offload their patients into the ambulance offload area and give report to the assigned fire personnel, transfer care, and return to service.

D. The impacted hospital may designate and assign an individual to the ambulance offload area if/when one is activated. This individual would coordinate with the assigned AREP and would coordinate patient assessment and care from a hospital perspective and would coordinate resources and beds as they become available.

E. If not utilizing interior emergency department space, the impacted hospital may pre-identify a space to be utilized as an ambulance offload area if/when needed.
1. If possible, this area will be supplied with chairs, stretchers/cots, blankets, oxygen, and other medical equipment/supplies as appropriate.
2. The ambulance offload area will ideally be a tent or similar structure with climate control that can provide adequate shelter from the elements.
3. The hospital will provide appropriate means of communication to ensure that hospital staff and prehospital AREP assigned to the ambulance offload area can maintain effective communications with emergency department personnel at all times.

F. Patients arriving to an impacted emergency department with an active ambulance offload area will be categorized according to the following criteria:
1. Black (Morgue) – Patients arriving at the hospital will be immediately assessed by emergency department physician for prognosis and futility of effort. If futility is determined, resuscitation shall be terminated. Patient will be received by the hospital and an account/visit will be generated in this hospital EHR system. The decedent will be transported directly to the hospital morgue, and the decedent remains will be transferred to morgue personnel expeditiously so that the ambulance crew can return to service.

2. Red (Immediate) – Patients that exhibit severe respiratory, circulatory or neurological symptoms that would likely result in significant morbidity or mortality if not addressed immediately. These patients require rapid assessment and intervention by emergency department personnel. These patients should be offloaded into the emergency department immediately, or they should be assigned top priority for offload if assigned to the ambulance offload area. If assigned to the ambulance offload area, these patients will be closely monitored by the designated hospital personnel and/or prehospital crew(s). Transfer of care to emergency department personnel will remain a top priority for this category of patient, and all efforts will be made within the ED to create an available bed. A single Paramedic may observe up to two (2) red/immediate category patients.
3. Yellow (Delayed) – Patients that require some degree of advanced care and/or assessment, but who are stable to wait in the ambulance offload area until appropriate resources are available inside the emergency department. The designated hospital staff will ensure the patient's information is captured in the hospital's EHR and the AREP will ensure that appropriate prehospital personnel have been assigned to monitor the patient's status. A single Paramedic may observe up to four (4) yellow/delayed category patients.
4. Green (Minor) – Patients that don't require advanced care and/or assessment and are medically stable with minimal observation. If space in the emergency department waiting room is available and appropriate, the patient may be transported there directly and report given to appropriate ED personnel so that the transporting ambulance crew can return to service. If no space is available in the emergency department waiting room, the patient may be transitioned to personnel in the ambulance offload area, and transfer of care will be initiated. The hospital personnel will ensure that the patient has been entered into the hospital's EHR.

G. For prehospital personnel employed by a Ventura County – based provider, documentation of patient care shall be in accordance with VCEMS Policy 1000 – Documentation of patient care.
1. To facilitate timely and accurate documentation and tracking/trending of patient vital signs and other pertinent findings, ePCR data should be electronically transferred from the transporting crew to other VCEMS prehospital personnel

staffing an ambulance offload area. The transporting crew will still be required to complete and upload a full ePCR, per Policy 1000, and VCEMS prehospital personnel staffing the ambulance offload area will complete an ePCR documenting the ongoing care and assessment until such time that the patient is transferred to a bed in the emergency department and transfer of care has been completed.

a. Personnel in the ambulance offload area will utilize the time they received the patient from the transporting ambulance and will be required to manually input that time for the following fields:
   i. Dispatch Notified Date/Time
   ii. Unit Notified by Dispatch Date/Time
   iii. Unit En Route Date/Time
   iv. Unit Arrived On Scene Date/Time
   v. Arrived at Patient Date/Time
   vi. Transfer of EMS Patient Care Date/Time

b. The Destination Patient Transfer of Care Date/Time will be the time when the patient is moved from the ambulance offload area to the emergency department, report is given, and a signature is received from receiving hospital representative.

c. The Unit Back in Service Date/Time will be when the personnel assigned to the ambulance offload area return and are available to receive an additional patient from a transporting ambulance crew.

| COUNTY OF VENTURA<br>HEALTH CARE AGENCY | | EMERGENCY MEDICAL SERVICES<br>POLICIES AND PROCEDURES |
|---|---|---|
| Policy Title:<br>Mobile Intensive Care Nurse Authorization Criteria | | Policy Number:<br>321 |
| APPROVED:<br>Administration: | Steven L. Carroll, Paramedic | Date: December 1, 2018 |
| APPROVED:<br>Medical Director | Daniel Shepherd, MD | Date: December 1, 2018 |
| Origination Date:<br>Date Revised:<br>Last Date Reviewed:<br>Next Review Date: | April 1, 1983<br>May 8, 2014<br>September 13, 2018<br>September 30, 2021 | Effective Date: December 1, 2018 |

I. PURPOSE: To define the criteria by which a Registered Nurse (RN) can be authorized to function as a Mobile Intensive Care Nurse (MICN) in the Ventura County Emergency Medical Services (VCEMS) system.

II. AUTHORITY: Health and Safety Code 1797.56 and 1797.58.

III. POLICY: Authorization as a MICN requires professional experience and appropriate training, so that appropriate medical direction can be given to Paramedics at the scene of an emergency.

IV. PROCEDURE: In order to be authorized as a MICN in Ventura County, the candidate shall:

- A. Fulfill the requirements regarding professional experience and prehospital care exposure. (Section V.A and B.)
- B. Successfully completes an approved MICN Developmental Course.
- C. Ride with a Paramedic unit for a minimum of eight (8) maximum of (16) hours and observe at least one (1) emergency response requiring Base Hospital contact.
- D. Be recommended for MICN authorization by his/her employer.
- E. Successfully complete the authorization examination process.
- F. Complete a MICN internship.

V. AUTHORIZATION REQUIREMENTS

- A. Professional Experience:

  The candidate shall hold a valid California RN license and shall have a minimum of 1040 hours (equivalent to six months' full-time employment) critical care experience as an (RN). Critical care areas include, but are not limited to, Intensive Care Unit, Coronary Care Unit, and the Emergency Department.
- B. Prehospital Care Exposure

The candidate shall be employed in a Ventura County Base Hospital. In addition, for a minimum of 520 hours (equivalent to three (3) months full time employment) within the previous six calendar months, the candidate shall have one or more of the following assignments.

1. Be assigned to clinical duties in an Emergency Department responsible for directing prehospital care. (It is strongly recommended that this requirement be in addition to and not concurrent with the candidate's six-(6) months' critical care experience. A Base Hospital may recommend a MICN candidate whose critical care and/or Emergency Department experience are concurrent based on policies and procedures developed by the Base Hospital), or
2. Have responsibility for management, coordination, or training for prehospital care personnel, or
3. Be employed as a staff member of VCEMS.

C. MICN Developmental Course

The candidate shall successfully complete an approved Mobile Intensive Care Nurses Development Course (See Appendix A).

1. The MICN developmental course shall include a four (4) hour Mass Casualty Incident (MCI)-Basic training module to be administered by a VCEMS or authorized representative.

D. Field Observation

Candidates shall ride with an approved Ventura County Paramedic unit for a minimum of eight (8) maximum of (16) hours and observe at least one emergency response patient contact or simulated drill.

1. Candidates shall complete the field experience requirement prior to taking the authorization examination.
2. A completed Field Observation Form shall be submitted to the VC EMS as verification of completion of the field observation requirement (Appendix C).

E. Employer's Recommendation

1. The candidate shall have the recommendation of the Emergency Department Medical Director or Paramedic Liaison Physician (PLP), Prehospital Care Coordinator (PCC) and Emergency Department Clinical Manager.
2. Candidates employed by VCEMS shall have the approval of the Emergency Medical Services Medical Director.

3. All recommendations shall be submitted in writing to VCEMS prior to the authorization examination. (Appendix B.)

   The recommendation shall include:

   a. Each applicant's completed Mobile Intensive Care Nurse Authorization application form (Appendix B).
   b. Verification that the candidate has been an employee of the hospital for a minimum of three (3) months (or has successfully completed the hospital's probationary period) and will, upon certification, will be assigned to the E.D. as set forth in Section B of the MICN Authorization Criteria.
   c. Verification that each candidate has successfully completed an approved MICN Developmental Course.
   d. Verification that each candidate has completed the Field Observation requirement as set forth in Section II.D of the MICN Authorization criteria.

F. Examination Process

1. Written Procedure: Candidates shall successfully complete a comprehensive written examination approved by VCEMS.
   a. The examination's overall minimum passing score shall be 80%.
   b. Employers shall be notified within two (2) weeks of the examination if their candidates passed or failed the examination.
   c. The examination shall be scheduled in conjunction with class completion dates.
2. Examination Failure
   a. A candidate who fails the initial MICN exam shall complete a repeat exam within 30 days. S/he may repeat the authorization exam one (1) time.
   b. A minimum score of 80% must be attained on repeat examination.
   c. If the repeat examination is not successfully completed, the candidate shall repeat the authorization application process, including the developmental course, prior to taking the subsequent examinations.
3. Failure to Appear
   a. If a scheduled candidate fails to appear for the scheduled examination, s/he shall be considered as having failed the examination.

b. Within 24 hours of the scheduled examination, VCEMS shall notify the employer of any candidate failing to appear for testing.

c. Candidates who fail to appear for two scheduled authorization examinations shall not be eligible to take the authorization examination for one (1) calendar year from the last scheduled examination date and must repeat the entire authorization process.

G. Internship

Following notification of successful completion of the authorization examination, the candidate shall satisfactorily direct ten (l0) base hospital runs under the supervision of a MICN, the PCC, and/or an Emergency Department physician.

1. The Communication Equipment Performance Evaluation Form shall be completed for each response handled by the candidate during the internship phase. (Appendix D)
2. Upon successful completion of at least ten (l0) responses, the ten responses shall be evaluated by the Emergency Department Director or PLP, the Emergency Department Clinical Manager, and the PCC. All Communication Equipment Performance Evaluation Forms (Appendix D) and Verification of Internship Completion Form (Appendix E) shall be submitted to Ventura County EMS.
3. The internship requirement shall be completed within six (6) weeks of the successful completion of the authorization examination.
4. If an employer is unable to complete a candidate's internship process within six (6) weeks of the authorization examination, a BH representative shall submit a letter to Ventura County EMS explaining the situation and their intent. If the intent is to continue the authorization process for the individual, the projected date for internship completion shall be stated.
5. If an employer is unable to complete a candidate's internship process within one year of the authorization examination, a BH representative shall resubmit a letter of recommendation and the candidate shall repeat the authorization examination.

VI. AUTHORIZATION

Authorization shall be granted and an authorization card sent to the employer within fifteen (15) working days following receipt of the Communication Equipment Performance Evaluation and Verification of Internship Completion forms. Authorization is valid for a two (2) year period

or during employment at a Ventura County Base Hospital. The nurse must be regularly assigned as a MICN per EMS Policy 322.

Appendix A

LETTER OF RECOMMENDATION
INITIAL AUTHORIZATION

_____ is recommended for Mobile Intensive Care Nurse Authorization in Ventura County.

We have reviewed the attached Mobile Intensive Care Nurse Application and verify that the applicant:

_____ Holds a valid California Registered Nurse License.

_____ Has at least 1040 hours of critical care experience.

_____ Has completed the Field Observation Requirement.

_____ If authorized, will be employed in accordance with guidelines as set for the in Section V.B of the MICN Authorization Criteria.

_____ Has been employed by _____ in the Emergency Department for at least 520 hours gaining prehospital care exposure.

_____ Has completed an approved Mobile Intensive Care Nurse Developmental Course.

_____
Emergency Department Medical Director/
Paramedic Liaison Physician

_____
Emergency Department Clinical Manager

_____
Prehospital Care Coordinator

Date: _____

Policy 321
Appendix B

MICN AUTHORIZATION APPLICATION

| | |
|---|---|
| | County of Ventura<br>Emergency Medical Services Agency<br>2220 E. Gonzales Road, Suite 130<br>Oxnard, CA 93036<br>805-981-5301 |

*Application processing requires a minimum of 10 days once all materials are received.*
*Authorization cards will be mailed. Complete application in ink.*

| | | |
|---|---|---|
| Name: | | |
| Street Address: | | |
| City: | State: | Zip code: |
| Home phone:<br>( ) | Work Phone:<br>( ) | |
| Base Hospital: | | |
| Current/Prior Authorization Number: | Expiration Date: | |

**Initial Authorization:**

- ☐ Pass the Ventura County EMS MICN Exam with a score of 80% or higher.
- ☐ Provide a copy of a valid and current license as a registered nurse in California
- ☐ Provide a copy of a valid and current ACLS card (front and back of card)
- ☐ Provide a copy of a valid and current PALS, PEPP, or ENPC card (front and back of card)
- ☐. Letter of Recommendation (VCEMS Policy 321, appendix A)
  (to include 1040 hours of Critical Care Experience & 520 hours of Ventura County ED experience)
- ☐. Field Observation Verification (VCEMS Policy 321, appendix C)
- ☐ Communication Equipment Performance Evaluation Form (VCEMS Policy 321, appendix D)
- ☐ Verification of Internship Completion (VCEMS Policy 321, appendix E)

**Reauthorization**

- ☐ Provide a copy of a valid and current license as a registered nurse in California
- ☐ Provide a copy of a valid and current ACLS card (front and back of card)
- ☐ Provide a copy of a valid and current PALS, PEPP, or ENPC card (front and back of card)
- ☐ Verification of employment as an MICN at a designated base hospital
- ☐ Letter of Recommendation (VCEMS Policy 322, appendix A)
- ☐ Continuing Education Log (VCEMS Policy 322, appendix D)

Applicant Signature: Date

Prehospital Care Coordinator Signature: Date

POLICY 321
APPENDIX C

FIELD OBSERVATION REPORT

MICN NAME: _____ AUTH. NO.:_____

EMPLOYER: _____ RIDE-ALONG DATE: _____

TIME IN: _____ TIME OUT: _____ TOTAL HOURS: _____

BASE CONTACT MADE WITH ALS PROCEDURES PERFORMED:YES: _____# _____ NO_____

ALS PROVIDER: _____

SUMMARY OF FIELD OBSERVATION

_____

_____

_____

_____

_____

_____

_____

_____

_____ _____
Paramedic Signature EMT/Paramedic Signature

_____ _____
MICN Signature PCC Signature

(Use other side for additional comments)

_____

# COMMUNICATION EQUIPMENT PERFORMANCE EVALUATION FORM

| Candidate's Name: | MICN Exam Date: | Base Hospital: |
|---|---|---|
| MICN Evaluator: Please evaluate this MICN candidate for the following, to include but not be limited to: Proper operation of radio equipment; recommended radio protocols used; correct priorities set; additional info requested as needed; appropriate, complete, specific orders given; able to explain rationale for orders, notification of other agencies involved; and ability to perform alone or with assistance. | | |

| Date | Incident # (and Pt # of Total as needed) | Chief Complaint | Treatment | Evaluator's Comments | Evaluator's Signature | PCC's Comments |
|---|---|---|---|---|---|---|
| 1. | | | | | | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |
| 5. | | | | | | |
| 6. | | | | | | |
| 7. | | | | | | |
| 8. | | | | | | |
| 9. | | | | | | |
| 10. | | | | | | |

Policy 321
Appendix E

**VERIFICATION OF INTERNSHIP COMPLETION**

_____, employed at _____, is/is not recommended for Authorization as a Mobile Intensive Care Nurse. S/He has achieved the following rating in the following categories:

| Category | Rating | Comments |
|---|---|---|
| Understands and operates equipment properly | | |
| Sets correct priorities | | |
| Requests additional information as needed | | |
| Orders are specific, complete and appropriate | | |
| Understands treatment rationale | | |

**NOTE:**
In order to qualify for recommendation, a candidate must receive at least a rating of 3 in each category. Ratings are as follows:

1. Poor
2. Fair
3. Average
4. Good
5. Excellent

**ATTACH COMMUNICATION EQUIPMENT PERFORMANCE EVALUATION FORM**

Signatures:

_____
Base Hospital Medical Director/Paramedic Liaison Physician

_____
Prehospital Care Coordinator

| COUNTY OF VENTURA<br>HEALTH CARE AGENCY | | EMERGENCY MEDICAL SERVICES<br>POLICIES AND PROCEDURES |
|---|---|---|
| Policy Title:<br>Mobile Intensive Care Nurse: Reauthorization Requirements | | Policy Number:<br>322 |
| APPROVED:<br>Administration: | Steven L. Carroll, Paramedic | Date: December 1, 2018 |
| APPROVED:<br>Medical Director | Daniel Shepherd, MD | Date: December 1, 2018 |
| Origination Date:<br>Date Revised:<br>Date Last Reviewed:<br>Next Review Date: | April 1983<br>May 8, 2014<br>September 13, 2018<br>September 30, 2021 | Effective Date: December 1, 2018 |

I. PURPOSE: To define the reauthorization procedures for Ventura County Mobile Intensive Care Nurse (MICNs).

II. AUTHORITY: Health and Safety Code Sections 1797.56 and 1797.58, 1797.213 and 1798.

II. POLICY:

Ventura County (MICNs) shall meet the requirements and apply for reauthorization every two years (Appendix A-C).

III. PROCEDURE:

A. Ventura County MICNs shall:

1. Complete a total of thirty-six hours of Continuing Education, 50% of which, in each category, shall have been obtained at Ventura County Base Hospitals. Document continuing education on Appendix D.
   a. Field Care Audits (Field care audit): Twelve hours per two years.
   b. Periodic training sessions or structured clinical experiences (Lecture/Seminar): Twelve hours per two years. Lecture/Seminar hours may be fulfilled by the following means:
      1) EMS Updates (Mandatory, up to two times per year, as offered).
      2) ACLS recertification - 4 hours credit
      3) PALS, PEPP, or ENPC recertification – 4 hours credit
      3) Self-Study/Video CE - No more than 50% of the total lecture requirement shall be met by combination of self-study and/or video CE.

a) Self-study CE shall be documented by a certificate from the sponsor of the self-study opportunity (e.g., EMS journals mail courses, etc.).

b) Video CE - Video CE shall be presented so that a physician or PCC is available to answer questions at the time of the presentation. A posttest shall be successfully completed at the Base Hospital, signed by the MICN and PCC, and documentation of attendance maintained at the Base Hospital.

c) Ride along with an approved Ventura County Paramedic unit may be required at PCC discretion.

c. Basic MCI Training for the MICN:

2) Two (2) hour refresher training required for MICN re-authorization every two years after the initial training has been completed.

d. Miscellaneous Education: Ten hours per two years.

Examples of miscellaneous education:

1) Ride-along on an ALS Unit for a maximum of 12 hours or at the discretion of the Prehospital Care Coordinator,

2) ALS level teaching, maximum of 8 hours,

3) Additional field care audit and/or lecture/ seminar,

4) Administrative assistance to PCC.

e. Verification of attendance must be retained by the MICN.

1) The Base Hospital Attendance Roster shall be signed individually by each MICN and maintained by the Base Hospital.

2) CE attendance verification for classes taken out of Ventura County shall be documented by completion of the Paramedic/MICN Continuing Education Record or a facsimile of a roll sheet signed by the sponsoring agency PCC with an additional original signature of the sponsoring agency PCC.

3) Credit shall be given only for actual time in attendance at CE.

4) Credit may be received for a class one time only in an authorization cycle.

2. To Maintain MICN Authorization

a. Function as a MICN for an average of 32 hours per month over a six-month period or

b. A MICN whose duties for his/her primary employer are administering a VC ALS Program may, with approval of the EMS Medical Director, maintain his/her MICN status by performing MICN clinical functions at a VC Base Hospital for 8 hours per month, averaged over a six month period.

3. Complete all reauthorization requirements (Appendix A-D) by the first day of the month that the Authorization card expires. In the event the MICN takes a leave of absence from their employer, he/she will have 60 days from the date of return to work to complete any outstanding CE prior to reauthorization, if an EMS Update was offered during leave of absence, it must be made up prior to radio assignment.

4. Maintain current ACLS and PALS, PEPP or ENPC certification.

B. Upon successful completion of the above requirements, a MICN shall be authorized for a period of two years from the last day of the month in which all requirements were met.

LETTER OF RECOMMENDATION
REAUTHORIZATION

_____ is recommended for Mobile Intensive Care Nurse Reauthorization in Ventura County.

We have reviewed the attached Mobile Intensive Care Nurse Application and verify that the applicant:

_____ Holds a valid California Registered Nurse License.

_____ Holds a valid and current ACLS card (front and back of card)

_____ Holds a valid and current PALS, PEPP, or ENPC card (front and back of card)

_____ Currently employed at _____ as an MICN
(Name of Base Hospital or Agency)

_____
Emergency Department Medical Director/
Paramedic Liaison Physician

_____
Emergency Department Clinical Manager

_____
Prehospital Care Coordinator

Date: _____

Policy 322
Appendix B

MICN AUTHORIZATION APPLICATION

| | |
|---|---|
| | County of Ventura<br>Emergency Medical Services Agency<br>2220 E. Gonzales Road, Suite 130<br>Oxnard, CA 93036<br>805-981-5301 |

*Application processing requires a minimum of 10 days once all materials are received.*
*Authorization cards will be mailed. Complete application in ink.*

| | | |
|---|---|---|
| Name: | | |
| Street Address: | | |
| City: | State: | Zip code: |
| Home phone:<br>( ) | Work Phone:<br>( ) | |
| Base Hospital: | | |
| Current/Prior Authorization Number: | Expiration Date: | |

**Initial Authorization:**

- ☐ Pass the Ventura County EMS MICN Exam with a score of 80% or higher.
- ☐ Provide a copy of a valid and current license as a registered nurse in California
- ☐ Provide a copy of a valid and current ACLS card (front and back of card)
- ☐ Provide a copy of a valid and current PALS, PEPP, or ENPC card (front and back of card)
- ☐. Letter of Recommendation (VCEMS Policy 321, appendix A)
  (to include 1040 hours of Critical Care Experience & 520 hours of Ventura County ED experience)
- ☐. Field Observation Verification (VCEMS Policy 321, appendix C)
- ☐ Communication Equipment Performance Evaluation Form (VCEMS Policy 321, appendix D)
- ☐ Verification of Internship Completion (VCEMS Policy 321, appendix E)

**Reauthorization**

- ☐ Provide a copy of a valid and current license as a registered nurse in California
- ☐ Provide a copy of a valid and current ACLS card (front and back of card)
- ☐ Provide a copy of a valid and current PALS, PEPP, or ENPC card (front and back of card)
- ☐ Verification of employment as an MICN at a designated base hospital
- ☐ Letter of Recommendation (VCEMS Policy 322, appendix A)
- ☐ Continuing Education Log (VCEMS Policy 322, appendix D)

Applicant Signature: Date

Prehospital Care Coordinator Signature: Date

POLICY 322
APPENDIX C

FIELD OBSERVATION REPORT
(PCC discretion for reauthorization)

MICN NAME: _____ AUTH. NO.:_____

EMPLOYER: _____ RIDE-ALONG DATE: _____

TIME IN: _____ TIME OUT: _____ TOTAL HOURS: _____

BASE CONTACT MADE WITH ALS PROCEDURES PERFORMED:YES: _____# _____ NO_____

ALS PROVIDER: _____

SUMMARY OF FIELD OBSERVATION

_____

_____

_____

_____

_____

_____

_____

_____

_____ _____
Paramedic Signature EMT/Paramedic Signature

_____ _____
MICN Signature PCC Signature

(Use other side for additional comments)

Policy 322
Appendix D

NAME:

_____

EMPLOYER: _____ Authorization #: M_____

## Ventura County Authorization Requirements
## Continuing Education Log

This form should be used to track your continuing education requirements. This form must be turned in when it is time for your reauthorization. When attending a continuing education course, remember to get a course completion, as EMS will audit 10% of all MICN's reauthorizing and if you are randomly selected you must provide a course completion for each course attended in order to receive credit for that course. Course completions must have the name of the course, number of hours, date, provider agency and provider number.

**The EMS Update requirements are mandatory, and they must be completed in the stated time frames or negative action will be taken against your MICN authorization.**

| Field Care Audit Hours (12 Hours) | | | | |
|---|---|---|---|---|
| | Date | Name of Topic Discussed | # Of Hours | Provider Number |
| 1. | | | | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | | | | |
| 9. | | | | |
| 10. | | | | |
| 11. | | | | |
| 12. | | | | |

| Lecture Hours | | | | | |
|---|---|---|---|---|---|
| | Required Courses | # of Hours | Date | Location | Provider Number |
| **1.** | EMS UPDATE #1 (1 hour) | | | | |
| **2.** | EMS UPDATE #2 (1 hour) | | | | |
| **3.** | EMS UPDATE #3 (1 hour) | | | | |
| **4.** | EMS UPDATE #4 (1 hour) | | | | |
| | EMS Updates are completed as the new or changed policies are put into place. This is usually done every 6 months in May and November. | | | | |
| **5.** | ACLS Course **(4 hours – additional hours please record in miscellaneous hours section)** | | | | |
| **6.** | PALS, PEPP or ENPC **(4 hours – additional hours please record in miscellaneous hours section)** | | | | |
| **7.** | Basic MCI for the MICN-Refresher (2 Hours) | | | | |

| Miscellaneous Hours<br>(10 hours are required)<br>(These hours can be earned with any combination of additional field care audit, lecture, etc.) | | | | |
|---|---|---|---|---|
| | Date | # of Hours | Name of Topic Discussed | Provider Number |
| 1. | | | | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | | | | |
| 9. | | | | |
| 10. | | | | |
| 11. | | | | |
| 12. | | | | |

| COUNTY OF VENTURA<br>HEALTH CARE AGENCY | | EMERGENCY MEDICAL SERVICES<br>POLICIES AND PROCEDURES |
|---|---|---|
| Policy Title:<br>Mobile Intensive Care Nurse Authorization Reactivation | | Policy Number<br>324 |
| APPROVED:<br>Administration | Steven L. Carroll, Paramedic | Date: December 1, 2018 |
| APPROVED:<br>Medical Director | Daniel Shepherd, MD | Date: December 1, 2018 |
| Origination Date:<br>Revised:<br>Date Last Reviewed:<br>Next Review Date: | December 1991<br>September 11, 2014<br>September 13, 2108<br>September 30, 2021 | Effective Date: December 1, 2018 |

I. Purpose: To define the procedure for reactivating a lapsed or inactive authorization.

II. Authority: Health and Safety Code 1797.56 and 1797.58, 1797.213 and 1798.

III. Policy: An individual may reactivate his/her authorization upon completion of the following requirements.

V. Procedure: An individual whose Mobile Intensive Care Nurse (MICN) authorization has become inactive or lapsed shall be eligible for reauthorization when the following have been met:

A. MICN Authorization has lapsed due to failure to meet continuous service requirements and date on authorization has not expired.

1. Notify VCEMS of intent to reactivate authorization.
2. Within six (6) months of notification of intent to reactivate, complete a minimum of six - (6) hours of lecture/seminar and six (6) hours field care audit. These hours will be applied to continuing education requirements for reauthorization.
3. Demonstrate competence to practice as an MICN by satisfactorily providing medical direction to a field unit under the direction of an authorized MICN or MD during minimum of five (5) ALS call-ins requiring ALS care.
4. Submit recommendations for reactivation of authorization from Base Hospital.

B. MICN authorization expired for 1-31 days:

1. Notify VCEMS of intent to reactivate.
2. Meet the requirements for authorization reactivation as defined in Policy 322.

C. MICN authorization expired less than one (1) year.

1. Notify VCEMS of intent to reactivate. Complete the following in order and within six (6) months.
2. Prior to assignment on a radio:
   a Meet the requirements for reauthorization as defined in Policy 322.
   b Complete additional continuing education consisting of six (6) hours lecture/seminar and six (6) hours field care audit.
   c Complete eight (8) hours of Field Observation on a Ventura County ALS unit.
3. Demonstrate competence to practice as a MICN by satisfactorily rendering the medical direction, while under the supervision of the PCC, MICN or MD, during a minimum of five (5) ALS responses. An ALS response is defined as the performance, by the Paramedic one or more of the skills listed in the VC EMS Scope of Practice.
4. Submit recommendations for reactivation of MICN authorization from the Base Hospital to VC EMS.

D. MICN authorization expired between one (1) and two (2) years.
1. Notify VC EMS of intent to reactivate. In the following order, and within six (6) months:
2. Prior to assignment on a radio:
   a. Meet the requirements for reauthorization as defined in Policy 322.
   b. Complete additional continuing education consisting of nine (9) hours lecture/seminar and nine (9) hours field care audit.
   c. Complete twelve (12) hours of field observation on a Ventura County ALS unit.
3. Demonstrate competence to practice as a MICN by satisfactorily rendering medical direction, while under the supervision of the PCC, MICN or MD, during minimum of ten ALS responses. An ALS response is defined as the performance, by the Paramedic one or more of the skills listed in the VC EMS Scope of Practice.
4. Submit recommendations for reactivation of MICN authorization from ALS employer and Base Hospital to VC EMS.

E. Authorization expired for two (2) years or more
1. Notify VC EMS of intent to reactivate. Criteria must be met in the following order and within six (6) months.

2. Prior to assignment on a radio:
    a. Meet the requirements for reauthorization as defined in Policy 322
    b. Complete additional continuing education consisting of an additional twelve (12) hours field care audit and twelve (12) hours lecture/seminar.
    c. Complete twelve (12) hours of field observation on a Ventura County ALS unit.
3. Demonstrate competence to practice as a MICN by satisfactorily rendering medical direction, while under the supervision of the PCC, MICN or MD, during a minimum of ten (10) ALS responses. An ALS response is defined as the performance, by the Paramedic one or more of the skills listed in the VC EMS Scope of Practice.
4. Submit recommendations for reactivation of MICN authorization from ALS employer and Base Hospital to VC EMS.

F. EMS Agency Responsibilities

VC EMS shall issue an authorization card upon successful completion of the requirements for reactivation.

| COUNTY OF VENTURA<br>EMERGENCY MEDICAL SERVICES | | HEALTH CARE AGENCY<br>POLICIES AND PROCEDURES |
|---|---|---|
| Policy Title:<br>Receiving Hospital Standards | | Policy Number<br>420 |
| APPROVED<br>Administration: | Steven L. Carroll, Paramedic | Date: December 1, 2021 |
| APPROVED<br>Medical Director: | Daniel Shepherd, MD | Date: December 1, 2021 |
| Origination Date: April 1, 1984<br>Date Revised: October 14, 2021<br>Date Last Reviewed: October 14, 2021<br>Review Date: October 31, 2023 | | Effective Date: December 1, 2021 |

I. PURPOSE: To define the criteria, which shall be met by an acute care hospital in Ventura County for Receiving Hospital (RH) designation.

II. AUTHORITY: Health and Safety Code, Division 2.5, Sections 1798, 1798.101, 1798.105, 1798.2 and California Code of Regulations, Title 22, Section 100175.

III. POLICY:

A. A RH, approved and designated by the Ventura County EMS Agency, shall:

1. Be licensed by the State of California as an acute care hospital.
2. Meet the requirements of the Health and Safety Code Sections 1250-1262 and Title 22, Sections 70411, 70413, 70415, 70417, 70419, 70649, 70651, 70653, 70655 and 70657 as applicable.
3. Be accredited by a CMS accrediting agency.
4. Operate an emergency department (ED) that is designated by the State Department of Health Services as a “Comprehensive Emergency Department,” “Basic Emergency Department” or a “Standby Emergency Department.”
5. Operate an Intensive Care Unit.
6. Have the following specialty services available at the hospital or appropriate referral hospital (at the discretion of the Emergency Department Physician. and consultant Physician.) within 30 minutes:

| | | |
|---|---|---|
| Cardiology | Anesthesiology | Neurosurgery |
| Orthopedic Surgery | General Surgery | General Medicine |
| Thoracic Surgery | Pediatrics | Obstetrics |

7. Have operating room services available within 30 minutes.

8. Have the following services available within 15 minutes.

   X-ray Laboratory Respiratory Therapy

9. Evaluate all ambulance transported patients promptly, either by RH Physician, Private Physician or other qualified medical personnel designated by hospital policy.

10. Have the capability at all times to communicate with the ambulances and the Base Hospital (BH).

11. Maintain multiple forms of redundant communication, in the event a widespread disaster disables traditional methods.

    a. Existing amateur radio sites established in each receiving facility will be maintained in coordination with local emergency management agency and amateur radio organizations.

11. Designate a ED Medical Director who shall be a physician on the hospital staff, licensed in the State of California and have experience in emergency medical care. The Medical Director shall:

    a. Be regularly assigned to the ED.
    b. Have knowledge of VCEMS policies and procedures.
    c. Coordinate RH activities with BH, Prehospital Services Committee (PSC), and VCEMS policies and procedures.
    d. Attend, or have designee attend, PSC meetings.
    e. Provide ED staff education.
    f. Schedule medical staffing for the ED on a 24-hour basis.

12. Agree to provide, at a minimum, on a 24-hour basis, a physician and a registered nurse (RN) that meets the following criteria:

    a. All Emergency Department physicians shall:
        1) Be immediately available to the Emergency Department at all times.
        2) Be certified by the American Board of Emergency Medicine OR the American Osteopathic Board of Emergency Medicine OR be Board eligible OR have all of the following:
            a) Have and maintain current Advanced Cardiac Life Support (ACLS) certification.
            b) Have and maintain current Advanced Trauma Life Support (ATLS) certification.

c) Complete at least 25 Category I CME hours per year with content applicable to Emergency Medicine.

b. RH EDs shall be staffed by:

1) Full-time staff: those physicians who practice emergency medicine 120 hours per month or more, and/or

2) Regular part-time staff: those physicians who see 90 patients or more per month in the practice of emergency medicine.

a) Formula: Average monthly census of acute patients divided by 720 hours equals average number of patients per hour. This figure multiplied by average hours worked by physician in emergency medicine equals patients per physician per month.

b) Physicians working in more than one hospital may total their hours.

c) Acute patients exclude scheduled and return visits, physicals, and patients not seen by the ED Physician.

d) During period of double coverage, the whole shall be met if one of the physicians meets the above standards.

c. All RH RNs shall:

1) Be regular hospital staff assigned solely to the ED for that shift.

2) Maintain current ACLS certification.

d. All other nursing and clerical personnel for the Emergency Department shall maintain current Basic Cardiac Life Support certification.

e. Sufficient licensed personnel shall be staffed to support the services offered.

13. Cooperate with and assist the PSC and EMS Medical Director in the collection of statistics for program evaluation.

14. Agree to maintain all prehospital data in a manner consistent with hospital data requirements and provide that the data be integrated with the patient's chart. Prehospital data shall include the Ventura County Electronic Patient Care Report (VCePCR), Paramedic Base Hospital communication form (from the BH), and documentation of a BH telephone communication with the RH.

15. Participate with the BH in evaluation of paramedics for reaccreditation.

16. Permit the use of the hospital helipad as an emergency rendezvous point if a State-approved helipad is maintained on hospital premises.

B. There shall be a written agreement between the RH and EMS indicating the commitment of hospital administration, medical staff, and emergency department staff to meet requirements for ALS program participation as specified by EMS policies and procedures.

C. EMS shall review its agreement with each RH at least every two years.

D. EMS may deny, suspend, or revoke the approval of a RH for failure to comply with any applicable policies, procedures, or regulations. Requests for review or appeal of such decisions shall be brought to the Board of Supervisors for appropriate action.

E. The EMS Medical Director may grant an exception to a portion of this policy upon substantiation of need by the PSC that, as defined in the regulations, compliance with the regulation would not be in the best interests of the persons served within the affected local area.

F. A hospital that applies to become a RH in Ventura County must meet Ventura County RH Criteria and agree to comply with Ventura County regulation.

1. Application:
   Eligible hospital shall submit a written request for RH approval to the VCEMS, documenting the compliance of the hospital with the Ventura County RH.
2. Approval:
   Program approval or denial shall be made in writing by EMS to the requesting RH within a reasonable period of time after receipt of the request for approval and all required documentation. This period shall not exceed three (3) months.

G. ALS RHs shall be reviewed every two years.

1. All RH shall receive notification of evaluation from the EMS.
2. All RH shall respond in writing regarding program compliance.
3. On-site visits for evaluative purposes may occur.
4. Any RH shall notify the EMS by telephone, followed by a letter within 48 hours, of changes in program compliance or performance.

H. Paramedics providing care for emergency patients with potentially serious medical conditions, and are within the catchment area of a hospital with a standby emergency department, shall make immediate base contact for destination determination. Examples of these patients would include, but are not limited to, patients with:

1. Patients with seizure of new onset, multiple seizures within a 24-hour period, or sustained alteration in level of consciousness

2. Chest pain or discomfort of known or suspected cardiac origin
3. Sustained respiratory distress not responsive to field treatment
4. Suspected pulmonary edema not responsive to field treatment
5. Potentially significant cardiac arrhythmias
6. Orthopedic emergencies having open fractures, or alterations of distal neurovascular status
7. Suspected spinal cord injury of new onset
8. Burns greater than 10% body surface area
9. Drowning or suspected barotrauma with any history of loss of consciousness, unstable vital signs, or respiratory problems
10. Criteria that meet stroke, STEMI, or trauma criteria for transport to a specialty care hospital

I. A RH with a standby emergency department only, offering "standby emergency medical service," is considered to be an alternative receiving facility. Patients may be transported to a standby emergency department when the use of the facility is in the best interest of patient care.

1. Patients that require emergent stabilization at an emergency department may be transported to a standby emergency department if a basic emergency facility is not within a reasonable distance. These would include patients:
    a. In cardiac arrest with NO return of spontaneous circulation (ROSC) in the field
    b. With bleeding that cannot be controlled
    c. Without an effective airway
2. During hours of peak traffic, the Base Hospital MICN should make destination determinations based on predicted travel time and patient condition. Patients who meet criteria for trauma, stroke, or STEMI in the absence of a condition that meets I.1. above, will be directed to the appropriate destination.
3. A RH with a standby emergency department shall report to Ventura County EMS Agency any change in status regarding its ability to provide care for emergency patients.

COUNTY OF VENTURA
EMERGENCY MEDICAL SERVICES

RECEIVING HOSPITAL
CRITERIA COMPLIANCE CHECKLIST

Receiving Hospital: _____ Date: _____

| | | YES | NO |
|---|---|---|---|
| A. | Receiving Hospital (RH), approved and designated by the Ventura County EMS Agency, shall: | | |
| 1. | Be licensed by the State of California as an acute care hospital. | | |
| 2. | Meet the requirements of the Health and Safety Code Section 1250-1262 and Title 22, Sections 70411, 70413, 70415, 70417, 70419, 70649, 70651, 70653, 70655 and 70657 as applicable. | | |
| 3. | Be accredited by a CMS accrediting agency | | |
| 4. | Operate an Intensive Care Unit. | | |
| 5. | Have the following specialty services available at the hospital or appropriate referral hospital (at the discretion of the Emergency Department (ED) Physician. and consultant Physician.) within 30 minutes: | | |
| | • Cardiology | | |
| | • Anesthesiology | | |
| | • Neurosurgery | | |
| | • Orthopedic Surgery | | |
| | • General Surgery | | |
| | • General Medicine | | |
| | • Thoracic Surgery | | |
| | • Pediatrics | | |
| | • Obstetrics | | |
| 6. | Have operating room services available within 30 minutes. | | |
| 7. | Have the following services available within 15 minutes. | | |
| | • X-Ray | | |
| | • Laboratory | | |
| | • Respiratory Therapy | | |
| 8. | Evaluate all ambulance transported patients promptly, either by RH Physician, Private Physician, or other qualified medical personnel designated by hospital policy. | | |
| 9. | Have the capability at all times to communicate with the ambulances and the BH. | | |
| 10. | Designate an Emergency Department Medical Director who shall be a physician on the hospital staff, licensed in the State of California, and have experience in emergency medical care. The Medical Director shall: | | |
| | a. Be regularly assigned to the Emergency Department. | | |
| | b. Have knowledge of VC EMS policies and procedures. | | |

| | | | | YES | NO |
|---|---|---|---|---|---|
| | c. | | Coordinate RH activities with Base Hospital, Prehospital Services Committee (PSC), and VCEMS policies and procedures. | | |
| | d. | | Attend or have designee attend PSC meetings. | | |
| | e. | | Provide Emergency Department staff education. | | |
| | f. | | Schedule medical staffing for the ED on a 24-hour basis. | | |
| 11. | Agree to provide, at a minimum, on a 24-hour basis, a physician and a registered nurse that meets the following criteria: | | | | |
| | a. | | All Emergency Department physicians shall: | | |
| | | 1) | Be immediately available to ED at all times. | | |
| | | 2) | Be certified by the American Board of Emergency Medicine OR the American Osteopathic Board of Emergency Medicine OR be Board eligible OR have all of the following: | | |
| | | | a) Have and maintain current Advanced Cardiac Life Support (ACLS) certification. | | |
| | | | b) Have and maintain current Advanced Trauma Life Support (ATLS)certification. | | |
| | | | c) Complete at least 25 Category I CME hours per year with content applicable to Emergency Medicine. | | |
| | b. | | RH EDs shall be staffed by: | | |
| | | 1) | Full-time staff: those physicians who practice emergency medicine 120 hours per month or more, and/or | | |
| | | 2) | Regular part-time staff: those physicians who see 90 patients or more per month in the practice of emergency medicine. | | |
| | | | a) Formula: Average monthly census of acute patients divided by 720 hours equals average number of patients per hour. This figure multiplied by average hours worked by physician in emergency medicine equals patients per physician per month | | |
| | | | b) Physicians working in more than one hospital may total their hours | | |
| | | | c) Acute patients exclude scheduled and return visits, physicals, and patients not seen by the ED Physician | | |

| | YES | NO |
|---|---|---|
| d) During period of double coverage, the whole shall be met if one of the physicians meets the above standards. | | |
| c. All RH RNs shall: | | |
| 1) Be regular hospital staff assigned solely to the ED for that shift. | | |
| 2) Maintain current ACLS certification. | | |
| d. All other nursing and clerical personnel for the ED shall maintain current Basic Cardiac Life Support certification. | | |
| e. Sufficient licensed personnel shall be utilized to support the services offered. | | |
| 12. Cooperate with and assist the PSC and EMS Medical Director in the collection of statistics for program evaluation. | | |
| 13. Agree to maintain all prehospital data in a manner consistent with hospital data requirements and provide that the data be integrated with the patient's chart. Prehospital data shall include the VCePCR, paramedic Base Hospital communication form (from the BH), and documentation of a BH telephone communication with the RH. | | |
| 14. Participate with the BH in evaluation of paramedics for reaccreditation. | | |
| 15. Permit the use of the hospital helipad as an emergency rendezvous point if a State-approved helipad is maintained on hospital premises. | | |
| B. There shall be a written agreement between the RH and EMS indicating the commitment of hospital administration, medical staff, and emergency department staff to meet requirements for employment as specified by EMS policies and procedures. | | |

COUNTY OF VENTURA
EMERGENCY MEDICAL SERVICES

RECEIVING HOSPITAL PHYSICIAN
CRITERIA COMPLIANCE CHECKLIST

Physician Name: _____ Date: _____

| All Emergency Department physicians shall: | | YES | NO |
|---|---|---|---|
| 1. | Be immediately available to the RH ED at all times. | | |
| 2. | Be certified by the American Board of Emergency Medicine OR the American Osteopathic Board of Emergency Medicine OR be Board eligible OR have all of the following: | | |
| a. | Have and maintain current ACLS certification. | | |
| b. | Complete at least 25 Category I CME hours per year with content applicable to Emergency Medicine. | | |
| c. | Have and maintain current Advanced Trauma Life Support (ATLS) certification. | | |

The above named physician is:

| | | | |
|---|---|---|---|
| 1) | Full-time staff: A physician who practices emergency medicine 120 hours per month or more, and/or | | |
| 2) | Regular part-time staff: A physician who see 90 patients or more per month in the practice of emergency medicine (Average monthly census of acute patients divided by 720 hours equals average number of patients per hour. This figure multiplied by average hours worked by physician in emergency medicine equals patients per physician per month, Physicians working in more than one hospital may total their hours, Acute patients exclude scheduled and return visits, physicals, and patients not seen by the ED Physician) | | |

COUNTY OF VENTURA
EMERGENCY MEDICAL SERVICES

# RECEIVING HOSPITAL STANDBY EMERGENCY DEPARTMENT ADDITIONAL CRITERIA COMPLIANCE CHECKLIST

Receiving Hospital w/Standby ED:_____ Date: _____

| | EMS REVIEW | |
|---|---|---|
| The RH with standby ED has: | YES | NO |
| A. Medical staff, and the availability of the staff at various times to care for patients requiring emergency medical services. | | |
| B. Ability of staff to care for the degree and severity of patient injuries or condition. | | |
| C. Equipment and services available at the facility necessary to care for patients requiring emergency medical services and the severity of their injuries or condition. | | |
| D. During the current 2-year evaluation period, has reported to Ventura County EMS Agency any change in status regarding its ability to provide care for emergency patients. | | |
| E. Authorization by the Ventura County EMS Agency medical director to receive patients requiring emergency medical services, in order to provide for the best interests of patient care. | | |
| COMMENTS | | |
| | | |

| COUNTY OF VENTURA<br>HEALTH CARE AGENCY | EMERGENCY MEDICAL SERVICES<br>POLICIES AND PROCEDURES |
|---|---|
| Policy Title:<br>Ventura County Pre-Hospital Infectious Disease Policy | Policy Number<br>630 |
| APPROVED:<br>Administration: Steven L. Carroll, Paramedic | Date: June 1, 2022 |
| APPROVED:<br>Medical Director Daniel Shepherd, M.D. | Date: June 1, 2022 |
| Origination Date: 12/30/2021<br>Date Revised:<br>Date Last Reviewed:<br>Review Date: 12/31/2022 | Effective Date: June 1, 2022 |



I. PURPOSE: To provide direction to prehospital emergency personnel when responding to patients with potential infectious diseases and formalize response to infectious disease threats to implement best practices in an efficient manner. Furthermore, the intent is to provide minimum standards to protect providers/patients and to mitigate infectious disease transmission.

II. AUTHORITY: Health and Safety Code, Division 2.5, Sections 1797.220,1797.188. California Code of Regulations, Title 22, Division 9 Section 100062, 100063, 100145 and 100146. ASPR TRACIE EMS Infectious Disease Playbook as a reference guide.

III. DEFINITIONS:

1. Transmission Based Precautions: Supplemental infection control measures to be used in addition to Standard Precautions for patients who may be infected or colonized with a communicable disease. Basic infection control to be used in addition to Standard Precautions for patients who may be infected or colonized with certain infectious agents.
2. Emergency Medical Dispatcher (EMD): Personnel who receive emergent and non-emergent calls and dispatch responding units to the scene of an incident.
3. Prehospital Responders: Includes any person or agency who responds to the scene of an incident.
4. Screening: A process for evaluating the possible presence of a particular problem.

## IV. PROCEDURE

A safe response by Emergency Medical Services (EMS) requires a cooperative effort and ongoing assessment to evaluate safety risks.

A. EMDs will identify possible infectious disease patients when taking 911 calls through screening questions and provide potential infectious disease information to responding prehospital emergency personnel prior to arriving on scene.

B. EMD's and prehospital responders should be aware of local disease scenarios, communicable disease surges, clusters, and/or outbreaks. These notifications may be distributed by Ventura County EMS Agency, California Health Alert Network (CAHAN), and/or Public Health "Hot Tips". The screening questions for highly infectious pathogens may be adapted for local area outbreaks.

C. Prehospital responders need to remain vigilant and further evaluate patients when they arrive on-scene to re-assess and determine the appropriate level of precautions. Re-assessment may require the need to change the type of infection control precautions suggested by dispatch when arriving on-scene.

D. Screening for pathogens involves questioning patients about recent travel to high-risk areas and their signs/symptoms. The timeframe for these conditions varies. For example, the screening time frame for Middle East Respiratory Syndrome (MERS) is 14 days but Ebola Virus Disease/Viral Hemorrhagic Fever (EVD/VHF) requires a screening time frame of 21 days. A general timeline of 21 days may be used for suspected infectious disease screening consistency.

E. Fever may be a helpful sign/symptom but should not be used exclusively to determine the type of precaution needed.

F. Avoid direct contact with patients who have a high suspicion of serious communicable disease until the appropriate level of PPE can be determined and safely donned. Strict transmission-based precautions based on the patient's clinical information is essential to avoid contact with infectious bodily fluids, droplets, and airborne particles.

G. If COVID-19 is suspected or novel influenza with potential for pandemic: Refer to Appendix A: Ventura County EMS Agency SARS CoV-2 Prehospital Guidelines.

H. If EVD/VHF/Ebola is suspected, stage at a safe distance. Notify EMS Duty Officer and request augmented response. Refer to Appendix B: Ventura County EMS Agency Ebola Guidelines.

I. Destination hospital must be notified of potential infectious disease by EMS personnel prior to patient arrival. If base hospital contact is made, the base hospital will notify the destination/receiving hospital of patient status and infectious disease precaution level.

J. Responding agencies in the County of Ventura shall assure that employees are properly instructed on the use of protective equipment in accordance with the manufacturer's instructions per Cal OSHA regulations.

## V. INFECTIOUS DISEASE PRECAUTION LEVELS

All transmission-based precautions include standard precaution measures. These are recommended minimum standard, and providers are encouraged to error on the side of caution when encountering a potentially infectious patient Refer to Appendix C: CDC PPE for donning and doffing direction. Refer to Appendix D Guidelines for Isolation Precautions.

1. Standard Precautions: Hand hygiene, gloves, mask, eyewear
2. Contact Precautions: Gown
3. Droplet Precautions: Goggles or face shield, mask on patient if possible
4. Airborne Precautions: NIOSH approved N-95, mask on patient if possible
5. Special Respiratory Precautions: NIOSH approved N-95, gown, mask on patient if possible
6. VCEMSA SARS-CoV-2 Guidelines: Augmented Response (Appendix A) - NIOSH approved N-95, goggles or face shield, gown, mask on patient if possible
7. EVD-VHF/Ebola Precautions: Augmented Response (Appendix B) - Stage, notify EMS Duty Officer, and request augmented response

## VI. CONSIDERATIONS

1. Resources not immediately needed may consider staging to limit potential infectious disease exposure to personnel.
2. When possible, a mask should be placed on patients with suspected potential infectious respiratory diseases.
3. When a determination of suspected infectious disease is difficult to determine, assume the highest level of contagious threat and use the appropriate level of protection.
4. Prehospital responders may consider assessing infectious disease potential from six feet away when arriving on-scene as appropriate to determine the level of precautions required.
5. If the medical personnel driving the transporting ambulance is not isolated, they must also wear the appropriate respiratory protection during transport even when not in direct patient contact.
6. American Medical Response houses a High-Risk Ambulance (HRA) in Ventura County for augmented medical transport needs. Refer to Appendix D: High Risk Ambulance Operations
7. Patients and their caregivers may find prehospital responders wearing high levels of personal protective equipment (PPE) alarming. Responders should be mindful of this potential and work to reassure patients while taking reasonable measures to address their distress.
8. Hand hygiene is one of the best ways to remove infectious contaminates, avoid getting sick and prevent the spread of infectious disease.
9. Circulate ambulance cabin air and utilize ambulance ventilation system.
10. Unprotected exposure to a suspected/confirmed communicable disease will be reported in accordance with VCEMSA Policy 612-Notification of Exposure to a Communicable Disease.

## VI. APPENDICES

A. Ventura County EMS Agency SARS CoV-2 Prehospital Guidelines
B. Ventura County EMS Agency Ebola Guidelines
C. CDC PPE
D. Guidelines for Isolation Precautions
E. High Risk Ambulance Operations
F. VCEMSA Policy 612-Notification of Exposure to a Communicable Disease

VENTURA COUNTY PUBLIC HEALTH

A Department of Ventura County Health Care Agency

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# MEMORANDUM

To: Prehospital Response Personnel

From: Daniel Shepherd, MD
Ventura County EMS Agency Medical Director

Re: Updated SARS-CoV-2 Prehospital Guidelines (Version 10)

Date: January 13, 2022

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Summary of changes in v10, effective January 13th, 2022:

- Addition of more basic Infection Prevention and Control (IPC) practices.
- Added current knowledge Omicron.
- Removed Delta information.
- Recognition that we are all tired.
- Provided education about healthy behaviors to support immunity and mental wellbeing.
- CDPH finally acknowledged this is an airborne pathogen
  - AFL 21-08.7 – "SARS-CoV-2 is an airborne pathogen, infectious persons are commonly asymptomatic, and the Omicron variant is extremely more contagious than the Delta variant."
- N-95 should be the preferred PPE for source control.
- Updated Isolation and Quarantine guidance following EMSA Memorandum.

The rapid increase of COVID-19 cases attributed by the Omicron variant has prompted the Ventura County Public Health (VCPH) department to urge unvaccinated individuals to get a COVID-19 vaccine and vaccinated individuals to get a booster dose. In addition, the community at large is advised to continue to adhere to the implementation of Infection Prevention and Control (IPC) practices. Recent data suggests that COVID-19 vaccination decreases the risk of severe disease, hospitalization, and death. General basic infection control measures- such as proper hand hygiene, cough etiquette, staying home when sick, equipment disinfection, and the utilization of appropriate Personal Protective Equipment (PPE)- continue to be considered best practices for reducing disease transmission within the community.

As the Omicron variant of the COVID-19 virus continues to spread across the US, it appears to be milder in presentation compared to previous strains. However, the Omicron variant does appear to be more contagious and appears to have a higher rate of re-infection than previous variants. Evidence indicates that the Omicron variant is

more likely to infect the throat than the lungs, which may explain why it appears to be more infectious and less deadly than other variants of the disease. The rapid spread of Omicron may suggest that we will see a shorter-lived surge than in the past, but that current measures will likely remain in place through February.

It is evident that this winter surge is putting strain on our healthcare system due to critical staffing shortages, exhausted providers, and generalized mental fatigue being experienced by frontline staff members. As a transmission mitigation measure, we encourage the utilization of a well-fitted N-95 mask while in the immediate vicinity of colleagues and the public. Additionally, VCPH encourages eating a balanced diet, staying hydrated, getting adequate rest, exercising routinely, and getting Vitamin D (sunlight) to reduce the likelihood of illness and mental strain.

Emergency Medical Services (EMS) recommendations are based on the most up-to-date clinical recommendations and information from public health authorities. EMS plays a vital role in responding to medical emergencies, triaging patients, and providing emergency medical treatment and transportation for ill or injured persons. Below are some key points to remember regarding SARS-CoV-2:

- SARS-CoV-2 is an airborne pathogen. Infectious persons are commonly asymptomatic, and the Omicron variant is much more contagious than the Delta variant.
- EMS personnel have a higher chance of encountering SARS-CoV-2 patients due to responding to multiple calls per day over a variety of geographic areas and entering different types of facilities (businesses, correctional facilities, long-term care facilities, residential homes, etc.).
- An infected person can spread COVID-19 two days prior to having any symptoms (or, if they are asymptomatic, two days before the positive specimen was collected).
- Implementing the universal use of Personal Protective Equipment (PPE), such as a well-fitted N-95 mask, is imperative to keeping prehospital personal protected.
- While the use of universal precautions is not new to EMS personnel, COVID-19 requires greater protection- especially when performing Aerosol Generating Procedures (AGP).
- When responding to patients suspected of having a SARS-CoV-2 infection, close coordination and effective communication are important aspects among the 911 Public Safety Answering Points/Emergency Communication Centers (PSAP/ECC).
- Symptoms for SARS-CoV-2 vary in complexity and severity and can range anywhere from severe respiratory illness to a mild sore throat. It's not uncommon for patients with SARS-CoV-2 to be completely asymptomatic.
- All patients (if tolerated), regardless of COVID-19 symptoms, should be instructed to practice source control. Contact should be minimized as much as possible until a cloth face covering or facemask is on the patient.
- The most effective ways to prevent infection and/or transmission are by:
  - Practicing frequent hand hygiene, especially after every patient contact
  - Wearing all recommended PPE (healthcare providers)
    - Extended use of N-95 respirators should be the preferred method of source control
  - Vaccination
  - Encouraging all patients to wear a mask
  - Cleaning and disinfecting surfaces
  - Avoiding face touching while working
  - Changing attire before getting into personal vehicle after work
  - Washing uniforms after every shift. Change uniforms during a shift if it is suspected that a uniform has become soiled following a patient contact

# VENTURA COUNTY EMS AGENCY COVID-19 PREHOSPITAL GUIDELINES

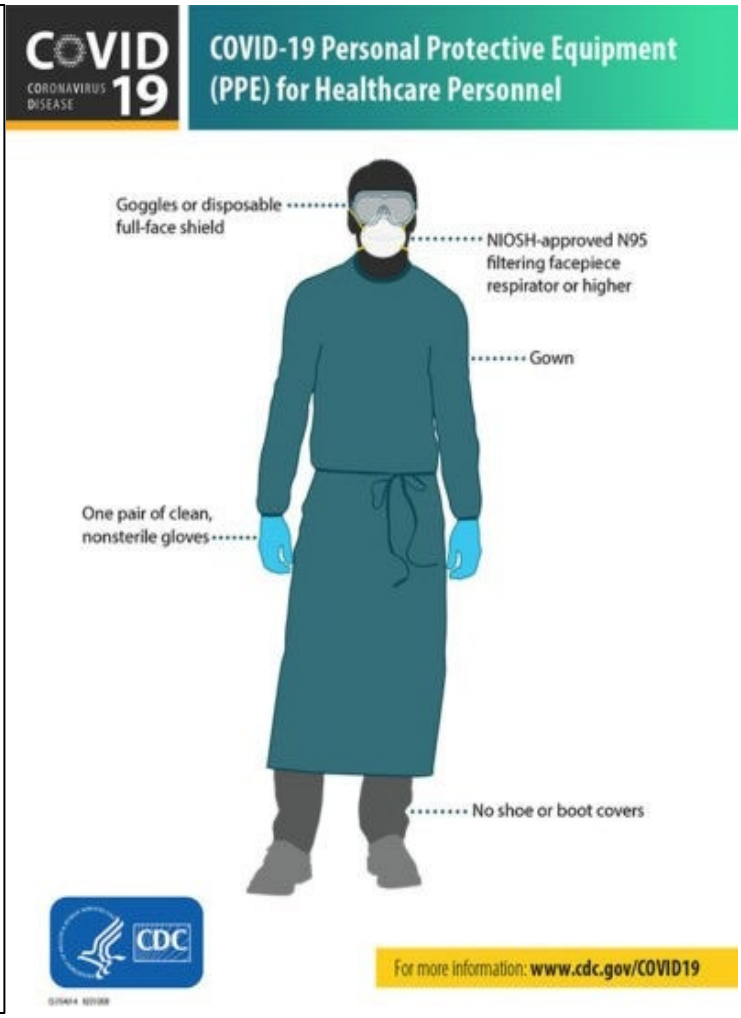
**If SARS-CoV-2 infection is not suspected:**

1. N95 is preferred per CDC, but a well-fitting surgical mask may be used
   - A NIOSH-approved N95 or equivalent or higher-level respirator for all aerosol-generating procedures (AGPs)
   - A NIOSH-approved N95 or equivalent or higher-level respirator for **unvaccinated personnel**
2. Gloves
3. Eye Protection
4. ***PATIENT SHOULD ALSO HAVE A PROCEDURE MASK APPLIED IMMEDIATELY***

**If SARS-CoV-2 infection is suspected:**

**IMPLEMENT FULL PPE FOR PATIENT CONTACTS WHERE PRE-NOTIFICATION FROM DISPATCH OCCURS, AND/OR WHERE THERE IS CONCERN FOR COVID-19 (SIGNS AND SYMPTOMS OF ACUTE RESPIRATORY ILLNESS SUCH AS FEVER, COUGH, SHORTNESS OF BREATH, DIFFICULTY BREATHING AND/OR GASTROINTESTINAL SYMPTOMS SUCH AS ABDOMINAL PAIN, NAUSEA/VOMITING AND/OR DIARRHEA) OR RECENT HISTORY (<2 weeks) OF SARS-CoV-2 exposure:**

1. Gloves
2. GOWN OR NFPA 1999-2013 APPROVED BLOODBORNE PATHOGEN PROTECTIVE CLOTHING
3. GOGGLES OR DISPOSABLE FULL-FACE SHIELD
   a. Protective eyewear (e.g., safety glasses, trauma glasses) with gaps between glasses and the face likely do not protect eyes from all splashes and sprays.
   b. Personal eyeglasses and contact lenses are NOT considered adequate eye protection.
4. N95 OR HIGHER* (IF AVAILABLE) RESPIRATOR
   *N100, P100, OR AIR PURIFYING RESPIRATOR (APR)
5. ***ALL PATIENTS SHOULD HAVE A SURGICAL MASK APPLIED IMMEDIATELY***




## General Guidelines / Best Practices

- **Full PPE**: EMS personnel should continue to adhere to Standard and Transmission-Based Precautions, including use of eye protection and/or an N95 or equivalent or higher-level respirator based on anticipated exposures and suspected or confirmed diagnoses.
- Assume that possible COVID-19 patients may have called for EMS assistance with a non-respiratory complaint. Be prepared and screen every patient for signs and symptoms until you are able to rule out respiratory illness.
- Begin assessment from a distance of at least six feet and ensure the patient dons a procedure mask as soon as possible.
- Limit the number of providers that make patient contact based on the patient's condition and level of care needed.
- Do not rely on dispatch pre-arrival instructions and PPE recommendations to catch all possible COVID-19 cases. Maintain a high degree of suspicion and repeat screening *on every call, for every patient*. Protect yourself and your prehospital teammates.
- Have all necessary PPE ready and available on every single call.
- Ask the patient if they have tested positive for COVID-19 or if they have been exposed to someone that has tested positive. If the answer to either of these questions is yes, treat the patient as positive for COVID-19.
- **If you are *EVER* in doubt about a patient's status, don full PPE. Limit your exposure and protect yourselves and your fellow first responders/prehospital personnel!**

## Treatment and Transport Guidelines

- Limit treatment activities unless the patient has an unstable condition that requires intervention.

- Ensure every patient is wearing a procedure mask.
- Ensure all personnel are wearing appropriate PPE.
  - If the ambulance does not have an isolated driver's compartment, the driver should remove the goggles, gloves, and gown or NFPA rated clothing and perform hand hygiene. An N95 respirator should continue to be used during transport.
- If a nasal cannula is used, a facemask should be worn over the cannula.
- Nebulized albuterol has no documented clinical benefit over the administration of albuterol via metered dose inhaler with a spacer. If available, use the patient's MDI with a spacer and defer nebulizer treatment.
  - Dose of MDI is 4 puffs x 1, then 2 puffs q 15 min prn shortness of breath and/or wheezing.
  - If a nebulizer treatment must be given, attempt to perform in an open setting (e.g. outside of ambulance).
- CPAP and nebulizer treatments should be discontinued prior to entering the Emergency Department.
  - Place the patient in a nonrebreather mask and titrate supplemental oxygen to a goal oxygen saturation of > 94%. If possible, use a lower flow setting (12 LPM) to reduce potential for aerosolization.
- Advise the base hospital whenever oxygen therapy is being administered, regardless of device/flow setting. If you don't feel CPAP or nebulizer therapy can be discontinued, advise ahead of time so that the receiving facility can take appropriate actions prior to ambulance arrival.
- Remember – Full PPE is essential for any prehospital personnel caring for patients that require any respiratory intervention(s).
  - An N95 or higher-level respirator, gown or NFPA 1999-2013 rated protective clothing, and goggles or disposable full-face shield shall be worn when any aerosolizing procedure is performed.
  - BVMs, and other ventilatory equipment, should be equipped with HEPA filtration to filter expired air – if available.
  - EMS systems should consult their ventilator equipment manufacturer to confirm appropriate filtration capability and the effect of filtration on positive-pressure ventilation.
  - If possible, the rear doors of the stationary transport vehicle should be opened and the HVAC system should be activated during AGPs. This should be done away from pedestrian traffic.
  - If possible, discontinue AGPs prior to entering the destination facility or communicate prior to arrival.
- Family members should only be taken as a rider in the event that the patient is an unaccompanied minor or has some other special circumstance that limits the personnel's ability to assess the patient.
- Ensure the ambulance's ventilation system is in non-recirculating mode in order to maximize the volume of fresh air brought into the vehicle from the outside. Utilize the exhaust fan in the ambulance patient compartment to draw air out of the vehicle.
- If transported, ensure that the exhaust vent is on in the patient compartment to draw air out.
- Establish base hospital contact as soon as possible and advise of "possible COVID-19 patient." Include signs and symptoms, history of present illness, and any other relevant information.
- For cases of unprotected exposure to a high-risk or confirmed COVID-19 patient, notify agency supervisor.

**Decontamination of Gear and Equipment**

- Decontamination of gear and equipment should be performed in PPE.
- Dispose of disposable respirator, respirator filters (if applicable), gown, and gloves in accordance with your agency's policy/protocol. Conservation of scarce resources should be practiced in accordance with your agency's established policy/protocol.
  - The VCPH Donning and Doffing Personal Protective Equipment video can be utilized for training purposes.
- Non-disposable items should be cleaned with an approved cleaning solution, in accordance with manufacturer's recommendation and established agency guidelines
  - Cleaning should happen prior to disinfection; some chemicals are both cleaners and disinfectants
  - Ensure that the chemical used is listed on the EPA List N as a hospital-grade disinfectant. Refer to the product's label for the appropriate *contact time*
    - *Contact time*: Time a disinfectant is in direct contact with the surface or item to be disinfected. For surface disinfection, the surface must remain visibly wet for the entire contact time.
  - In most cases, fogging, fumigation, and wide-area or electrostatic spraying are not recommended as primary methods of surface disinfection and have several safety risks to consider, unless specified as a method of application on the product label.

- NFPA 1999-2013 protective clothing that is visibly contaminated with bodily fluid should be washed following the agency's prescribed laundry procedures.
- Ambulances used to transport symptomatic patients should be cleaned utilizing approved commercially available cleaning products or diluted bleach solution (1/4 cup bleach in 1 gallon of water). Refer to agency guidelines in regard to authorized cleaning procedures.

**Ambulance Considerations**

Considerations for vehicle configuration when transporting a patient with suspected or confirmed SARS-CoV-2 infection

- Isolate the ambulance driver from the patient compartment and keep pass-through doors and windows tightly shut.
- When possible, use vehicles that have isolated driver and patient compartments that can provide separate ventilation to each area.
    - Before entering the isolated driver's compartment, the driver (if they were involved in direct patient care) should remove and dispose of PPE and perform hand hygiene to avoid soiling the compartment.
    - Close the door/window between these compartments before bringing the patient on board.
    - During transport, vehicle ventilation in both compartments should be on non-recirculated mode to maximize air changes that reduce potentially infectious particles in the vehicle.
    - If the vehicle has a rear exhaust fan, use it to draw air away from the cab, toward the patient-care area, and out the back end of the vehicle.
    - After patient unloading, allowing a few minutes with ambulance module doors open will rapidly dilute airborne viral particles.
- If a vehicle without an isolated driver compartment must be used, open the outside air vents in the driver area and turn on the rear exhaust ventilation fans to the highest setting to create a pressure gradient toward the patient area.
    - Before entering the driver's compartment, the driver (if they were involved in direct patient care) should remove their gown, gloves and eye protection and perform hand hygiene to avoid soiling the compartment. They should continue to wear their NIOSH-approved N95 or equivalent or higher-level respirator.

**Miscellaneous Items / Points to Remember**

- Hand Hygiene remains the number one way to protect yourself and others
    - EMS personnel should perform hand hygiene by using alcohol-based hand sanitizer (ABHS) with 60-95% alcohol.
    - Hand sanitizing should also be methodical and mindful, ensuring the entire surface of the hand is covered with ABHS.
    - After hand sanitizing, the surface of the hand should remain wet for 20 seconds.
    - If hands are visibly soiled, EMS personnel must wash hands with soap and water.
    - Hand hygiene should be done prior to donning gloves, in between patients, after contact with environmental surfaces, prior to donning PPE, after doffing PPE, and after touching one's face.
- **Aerosol Generating Procedures (AGPs)**: Some procedures performed on COVID-19 patients could generate infectious aerosols. In particular, procedures that are likely to induce coughing (e.g., sputum induction, open suctioning of airways) should be performed cautiously and avoided if possible. EMS clinicians should exercise caution if an aerosol-generating procedure [e.g., bag valve mask (BVM) ventilation, oropharyngeal suctioning, endotracheal intubation, nebulizer treatment, continuous positive airway pressure (CPAP)], or resuscitation involving emergency intubation or cardiopulmonary resuscitation (CPR) is necessary. If possible, consult with medical control for specific guidance before performing aerosol-generating procedures.
- Continue to use the CDC exposure risk assessment and guidelines issued by CDC (link below) for further information on COVID-19 exposure categories.
- Ensure crew rosters are accurate in CAD. In the event there is an exposure, this information may be helpful in the crew identification and notification process.
- To reduce contamination and possible exposure, minimize loose and uncovered equipment in the patient compartment area.

# COVID-19 Guidance on Quarantine and Isolation for Prehospital Personnel Exposed to SARS-CoV-2

The current authorized vaccinations in the United States have been shown to be effective at protecting the population from severe disease and death from COVID-19. Due to the critical staffing shortages currently being experienced across the healthcare continuum, the California Department of Public Health (CDPH) has released an All Facilities Letter (AFL) that provides a temporary blanket waiver from January 8, 2022 through February 1, 2022 from the return-to-work criteria for health care workers. On January 8, 2022, the Emergency Medical Services Authority (EMSA) communicated that Emergency Medical Services (EMS) personnel can operate under the guidance outlined in AFL 21-08.7.

EMS providers should continue to use the CDC's risk assessment framework to determine exposure risk for prehospital personnel who have potentially been exposed to patients, visitors, or other individuals with confirmed COVID-19 while working in the field. Additionally, EMS could implement additional strategies found in the CDC guidance for contingency and crisis management to mitigate the effects of staff shortages during this surge.

CDPH AFL conditions that during this severe staffing shortage, Health Care Providers (HCP) who have tested positive for SARS-CoV-2 and who are **asymptomatic** may return to work immediately without isolation and without testing, and HCP's who have been exposed and who are asymptomatic may return to work immediately without quarantine and without testing. These HCP's **must wear a N-95 respirator** for source control. Facilities implementing this change must have made every attempt to bring in additional registry or contract staff and must have considered modifications to non-essential procedures.

***The sections below on isolation and quarantine are temporarily waived from January 8, 2022 to February 1, 2022.***

**Work Restrictions for HCP with SARS-CoV-2 Infection (Isolation)**

| Vaccination Status | Routine | Critical Staffing Shortage |
|---|---|---|
| Boosted, OR<br><br>Vaccinated but not booster-eligible | 5 days* with negative diagnostic test† same day or within 24 hours prior to return OR<br><br>10 days without a viral test | <5 days with most recent diagnostic test† result to prioritize staff placement‡ |
| Unvaccinated, OR<br><br>Those who are vaccinated and booster-eligible but have not yet received their booster dose | 7 days* with negative diagnostic test† same day or within 24 hours prior to return OR<br><br>10 days without a viral test | 5 days with most recent diagnostic test† result to prioritize staff placement‡ |

**Work Restrictions for Asymptomatic HCP with Exposures (Quarantine)**

| Vaccination Status | Routine | Critical Staffing Shortage |
|---|---|---|
| Boosted, OR<br><br>Vaccinated but not booster-eligible | No work restriction with negative diagnostic test† upon identification and at 5-7 days | No work restriction with diagnostic test† upon identification and at 5-7 days |
| Unvaccinated§, OR<br><br>Those who are vaccinated and booster-eligible but have not yet received their booster dose§ | 7 days with diagnostic test† upon identification and negative diagnostic test† within 48 hours prior to return | No work restriction with diagnostic test† upon identification and at 5-7 days |

**Asymptomatic or mildly symptomatic with improving symptoms, and meeting negative test criteria; facilities should refer to CDC guidance for HCP with severe to critical illness or moderately to severely immunocompromised.*

*† Either an antigen test or nucleic acid amplification test (NAAT) can be used. Some people may be beyond the period of expected infectiousness, but remain NAAT positive for an extended period of time. Antigen tests typically have a more rapid turnaround time but are often less sensitive than NAAT. Antigen testing is preferred for discontinuation of isolation and return-to-work for SARS-CoV-2 infected HCP's and for HCP's who have recovered from SARS-CoV-2 infection in the prior 90 days; NAAT is also acceptable if done and negative within 48 hours of return.*

*‡ If most recent test is positive, then HCP's may provide direct care only for patients/residents with confirmed SARS-CoV-2 infection, preferably in a cohort setting.*

*§ Includes persons with prior infection.*

*HCP's whose most recent test is positive and are working before meeting routine return-to-work criteria must maintain separation from other HCP's as much as possible (i.e. use a separate breakroom and restroom) and wear a N-95 respirator for source control at all times while in the facility. Similarly, exposed unvaccinated and vaccinated HCP's who are booster-eligible but have not yet received their booster dose and who are working during their quarantine period should also wear a N-95 respirator for source control at all times while in the facility until they meet routine return-to-work criteria. In addition, healthcare facilities should make N-95 respirators available to any HCP who wishes to wear one when not otherwise required to for the care of patients or residents with suspected or confirmed COVID-19.*

Interim Guidance for Managing Healthcare Personnel with SARS-CoV-2 Infection or Exposure to SARS-CoV-2

| Exposure | Personal Protective Equipment (PPE) used | Work Restriction for HCP who have received all COVID-19 vaccine and booster doses as recommended by CDC | Work Restriction for HCP who have received all COVID-19 vaccine and booster doses as recommended by CDC |
|---|---|---|---|
| Higher-risk: HCP who had prolonged1 close contact2 with a patient, visitor, or HCP with confirmed SARS-CoV-2 infection3 | • HCP not wearing a respirator (or if wearing a facemask, the person with SARS-CoV-2 infection was not wearing a cloth mask or facemask)[4]<br>• HCP not wearing eye protection if the person with SARS-CoV-2 infection was not wearing a cloth mask or facemask<br>• HCP not wearing all recommended PPE (i.e., gown, gloves, eye protection, respirator) while performing an aerosol-generating procedure[1] | • In general, no work restrictions.[5]<br>• Perform SARS-CoV-2 testing immediately (but generally not earlier than 24 hours after the exposure) and, if negative, again 5-7 days after the exposure.[6]<br>• Follow all recommended infection prevention and control practices, including wearing well-fitting source control, monitoring themselves for fever or symptoms consistent with COVID-19, and not reporting to work when ill or if testing positive for SARS-CoV-2 infection.<br>• Any HCP who develop fever or symptoms consistent with COVID-19 should immediately self-isolate and contact their established point of contact (e.g., occupational health program) to arrange for medical evaluation and testing. | **Option 1:**<br>• Exclude from work. HCP can return to work after day 7 following the exposure (day 0) if a viral test[6] is negative for SARS-CoV-2 and HCP do not develop symptoms. The specimen should be collected and tested within 48 hours before the time of planned return to work (e.g., in anticipation of testing delays).<br>**Option 2:**<br>• Exclude from work. HCP can return to work after day 10 following the exposure (day 0) if they do not develop symptoms. Although the residual risk of infection is low, healthcare facilities could consider testing[6] for SARS-CoV-2 within 48 hours before the time of planned return.<br>**In addition to Options above:**<br>• Follow all recommended infection prevention and control practices, including wearing well-fitting source control, monitoring themselves for fever or symptoms consistent with COVID-19, and not reporting to work when ill or if testing positive for SARS-CoV-2 infection.<br>• Any HCP who develop fever or symptoms consistent with COVID-19 should immediately |

*Based on CDC Guidance Dated Updated December 23, 2021*

| | | | |
|---|---|---|---|
| | | | contact their established point of contact (e.g., occupational health program) to arrange for medical evaluation and testing. |
| **Lower-risk**: HCP with exposure risk other than those described as higher-risk above | N/A | • No work restrictions or testing.<br>• Follow all recommended infection prevention and control practices, including monitoring themselves for fever or symptoms consistent with COVID-19 and not reporting to work when ill.<br>• Any HCP who develop fever or symptoms consistent with COVID-19 should immediately self-isolate and contact their established point of contact (e.g., occupational health program) to arrange for medical evaluation and testing. | • No work restrictions or testing.<br>• Follow all recommended infection prevention and control practices, including monitoring themselves for fever or symptoms consistent with COVID-19 and not reporting to work when ill. Any HCP who develop fever or symptoms consistent with COVID-19 should immediately self-isolate and contact their established point of contact (e.g., occupational health program) to arrange for medical evaluation and testing. |

**Footnotes:**

1. Data are insufficient to precisely define the duration of time that constitutes a prolonged exposure. Until more is known about transmission risks, it is reasonable to consider an exposure of 15 minutes or more as prolonged. This could refer to a single 15-minute exposure to one infected individual or several briefer exposures to one or more infected individuals adding up to at least 15 minutes during a 24-hour period. However, the presence of extenuating factors (e.g., exposure in a confined space, performance of aerosol-generating procedure) could warrant more aggressive actions even if the cumulative duration is less than 15 minutes. For example, **any duration** should be considered prolonged if the exposure occurred during performance of an aerosol generating procedure.
2. Data are limited for the definition of close contact. For this guidance it is defined as: a) being within 6 feet of a person with confirmed SARS-CoV-2 infection or b) having unprotected direct contact with infectious secretions or excretions of the person with confirmed SARS-CoV-2 infection. Distances of more than 6 feet might also be of concern, particularly when exposures occur over long periods of time in indoor areas with poor ventilation.
3. Determining the time period when the patient, visitor, or HCP with confirmed SARS-CoV-2 infection could have been infectious:
    a. For individuals with confirmed COVID-19 who developed symptoms, consider the exposure window to be 2 days before symptom onset through the time period when the individual meets criteria for discontinuation of Transmission-Based Precautions

*Based on CDC Guidance Dated Updated December 23, 2021*

   b. For individuals with confirmed SARS-CoV-2 infection who never developed symptoms, determining the infectious period can be challenging. In these situations, collecting information about when the asymptomatic individual with SARS-CoV-2 infection may have been exposed could help inform the period when they were infectious.
      i. If the date of exposure cannot be determined, although the infectious period could be longer, it is reasonable to use a starting point of 2 days prior to the positive test through the time period when the individual meets criteria for discontinuation of Transmission-Based Precautions for contact tracing.
4. While respirators confer a higher level of protection than facemasks and are recommended when caring for patients with SARS-CoV-2 infection, facemasks still confer some level of protection to HCP, which was factored into this risk assessment if the patient was also wearing a cloth mask or facemask.
5. Circumstances when work restriction might be recommended:
   a. HCP are moderately to severely immunocompromised.
   b. When directed by public health authorities (e.g., during an outbreak where SARS-CoV-2 infections are identified among HCP who have received all COVID-19 vaccine doses, including booster dose, as recommended by CDC)
      i.
         i. In the event of ongoing transmission within a facility that is not controlled with initial interventions, strong consideration should be given to use of work restriction of HCP with higher-risk exposures who have received all COVID-19 vaccine doses, including booster dose, as recommended by CDC. In addition, there might be other circumstances for which the jurisdiction's public health authority recommends these and additional precautions.
6. Either an antigen test or NAAT can be used. Some people may be beyond the period of expected infectiousness but remain NAAT positive for an extended period. Antigen tests typically have a more rapid turnaround time but are often less sensitive than NAAT. Antigen testing is preferred for symptomatic HCP and for asymptomatic HCP who have recovered from SARS-CoV-2 infection in the prior 90 days.

# Interim Guidance for Managing Healthcare Personnel with SARS-CoV-2 Infection or Exposure to SARS-CoV-2

**Immunocompromised:** For the purposes of this guidance, moderate to severely immunocompromising conditions include, but might not be limited to:

- Active treatment for solid tumor and hematologic malignancies
- Receipt of solid-organ transplant and taking immunosuppressive therapy
- Receipt of chimeric antigen receptor (CAR)-T-cell or hematopoietic stem cell transplant (within 2 years of transplantation or taking immunosuppression therapy)
- Moderate or severe primary immunodeficiency (e.g., DiGeorge syndrome, Wiskott-Aldrich syndrome)
- Advanced or untreated HIV infection (people with HIV and CD4 cell counts <200/mm3, history of an AIDS-defining illness without immune reconstitution, or clinical manifestations of symptomatic HIV)
- Active treatment with high-dose corticosteroids (i.e., ≥20mg prednisone or equivalent per day when administered for ≥2 weeks), alkylating agents, antimetabolites, transplant-related immunosuppressive drugs, cancer chemotherapeutic agents classified as severely immunosuppressive, tumor-necrosis (TNF) blockers, and other biologic agents that are immunosuppressive or immunomodulatory. Other factors, such as end-stage renal disease, may pose a much lower degree of immunocompromise and not clearly affect decisions about need for work restriction if the healthcare provider had close contact with someone with SARS-CoV-2 infection. However, fully vaccinated people in this category should consider continuing to practice physical distancing and use of source control while in a healthcare facility, even when not otherwise recommended for fully vaccinated individuals.
- Ultimately, the degree of immunocompromise for the healthcare provider is determined by the treating provider, and preventive actions are tailored to each individual and situation.

To read the full guidance document go to Interim Guidance for Managing Healthcare Personnel with SARS-CoV-2 Infection or Exposure to SARS-CoV-2

*Based on CDC Guidance Dated Updated December 23, 2021*

# Infectious Disease On-Scene Assessment Algorithm

**Signs and Symptoms**

**GI**

- Norovirus with exposure history - **C**
- C. difficile with history/diagnosis - **C**
- EVD/VHF with travel/exposure history **- E**
- Otherwise - **S**

**Fever, Flu-like**

- Novel influenza, MERS, or similar with travel or exposure hisotry - **SR**
- Influenza - **D**
- Strep Pharyngitis - **D**
- Consider - **COV**
- EVH/VHF with travel/exposure history- **E**
- Otherwise - **S**

**Cough/ Respiratory**

- Novel influenza, MERS, or similar with travel or exposure history - **SR**
- Pneumonia - **D**
- TB with diagnosis or risk factors - **A**
- Consider - **COV**
- Otherwise - **S**

**Skin**

- Large open drainage - **C**
- Measles - exposure or typical rash - **A**
- Zoster with open lesions (shingles) - **A, C**
- Chickenpox - **A, C**
- Meningococcal disease (purpuric rash to extremities, usually very ill - **D**
- Hemorrhage with travel/exposure history - **E**

**Other**

- Prior antibiotic resistant infection- **C**
- Multidrug-Resistant Organisms - **C**

**S - Standard**

**D - Droplet**

**SR - Special Respiratory**

**C - Contact**

**A - Airborne**

**E - VCEMSA Ebola Guidelines**

**COV - VCEMSA COVID Guidelines**

**Dispatch screening is designed to screen for the highest potential infectious disease precautions. Evaluation on scene is required to adjust precautions to appropriate levels.**

*This algorithm was designed using the ASPR TRACIE EMS Infectious Disease Playbook as a reference guide. Updated 12/30/2021

# Trauma Assessment/Treatment Guidelines 705.01

I. Purpose: To establish a consistent approach to the care of the trauma patient

A. Rapid trauma survey

1. Airway

a. Maintain inline cervical stabilization

1) Follow spinal precautions per VCEMS Policy 614

b. Open airway as needed

2) Utilize a trauma jaw thrust to maintain inline cervical stabilization if indicated

c. Suction airway if indicated

2. Breathing

a. Assess rate, depth and quality of respirations

b. If respiratory effort inadequate, assist ventilations with BVM

c. Insert appropriate airway adjunct if indicated

d. Assess lung sounds

e. Initiate airway management and oxygen therapy as indicated

1) Maintain SpO2 ≥ 94%

3. Circulation

a. Assess skin color, temperature, and condition

b. Check distal/central pulses and capillary refill time

c. Control major bleeding

d. Initiate shock management as indicated

4. Disability

a. Determine level of consciousness (Glasgow Coma Scale)

b. Assess pupils

5. Exposure

a. If indicated, remove clothing for proper assessment/treatment of injury location. Maintain patient dignity

b. Maintain patient body temperature

B. Detailed physical examination

1. Head

a. Inspect/palpate skull

b. Inspect eyes, ears, nose and throat

2. Neck

a. Palpate cervical spine

b. Check position of trachea

c. Assess for jugular vein distention (JVD)

3. Chest

a. Visualize, palpate, and auscultate chest wall

4. Abdomen/Pelvis
   a. Inspect/palpate abdomen
   b. Assess pelvis, including genitalia/perineum if pertinent
5. Extremities
   a. Visualize, inspect, and palpate
   b. Assess Circulation, Sensory, Motor (CSM)
6. Back
   ~~a.~~ Visualize, inspect, and palpate thoracic and lumbar spines
   a.

C. Trauma care guidelines
   1. Fluid Administration
      a. Maintain SBP of ≥ 80 mmHg
      b. Patients 65 years and older, maintain SBP of ≥ 100 mmHg
      c. Isolated head injuries, maintain SBP of ≥ 100 mmHg
   2. Tranexamic Acid (TXA) Administration
      a. Patients 15 years of age and older as indicated in VCEMS Policy 734
   3~~1~~. Head injuries
      a. General treatments
         1) Evaluate head and face – maintain high index of suspicion for injury if significant mechanism of injury is present or physical examination is remarkable for findings
         2) Elevate head 30° unless contraindicated
         3) Do not attempt to intubate head injured patients unless unable to manage with BLS airway measures
         4) Do not delay transport if significant airway compromise
      b. Penetrating injuries
         1) DO NOT REMOVE IMPALED OBJECT (unless airway obstruction is present)
         2) Stabilize object manually or with bulky dressings
      c. Facial injuries
         1) Assess airway and suction as needed
         2) Remove loose teeth or dentures if present
      d. Eye injuries
         1) Remove contact lenses
         2) Irrigate eye thoroughly with suspected acid/alkali burns
         3) Avoid direct pressure
         4) Cover both eyes
         5) Stabilize any impaled object manually or with bulky dressing

42. Spinal cord injuries

a. General treatments

1) Evaluate spinal column – maintain high index of suspicion for injury if significant mechanism of injury is present or physical examination is remarkable for findings

2) Place patient in supine position if hypotension is present

3)

4)

5)2)

b. Penetrating injuries – DO NOT REMOVE IMPALED OBJECT

1) Stabilize object manually or with bulky dressings

2) Control bleeding if present

3) In the presence of isolated penetrating injuries, spinal motion restriction is contraindicated

c. Neck injuries

1) Monitor airway

2) Control bleeding if present

53. Thoracic Trauma

a. General treatments

1) Evaluate chest – maintain high index of suspicion for internal injury if significant mechanism of injury is present or physical examination is remarkable for findings

2) Keep patients sitting high-fowlers

a. In the presence of isolated penetrating injuries, spinal motion restriction is contraindicated

b. 3) Goal of fluid resuscitation is to maintain SBP of ≥ 80 mmHg. I f SBP > 80 mmHg, then maintain IV/IO at TKO rate

c. a) Maintain palpable peripheral pulses

d. 4) Tranexamic Acid – For patients 15 years of age and older as

e.a. indicated in VCEMS Policy 734

b. Penetrating injuries – DO NOT REMOVE IMPALED OBJECT

a) Remove object if CPR is interfered

b) Stabilize object manually or with bulky dressings

c) Control bleeding if present

c. Flail Chest/Rib injuries

a) Assist ventilations if respiratory status deteriorates

d. Pneumothorax/Hemothorax

a) Keep patient sitting high-fowlers

b) Assist ventilations if respiratory status deteriorates1.

1) Suspected tension pneumothorax should be managed per VCEMS Policy 715

e. Open (Sucking) Chest Wound

a) Place an occlusive dressing to wound site, secure on 3 sides only or place a vented chest seal.

~~b)~~ Assist ventilations if respiratory status deteriorates

~~c)~~

~~d)~~

~~e)~~

~~f)~~b)

f. Cardiac Tamponade – If suspected, expedite transport

a) Beck's Triad

1) Muffled heart tones

2) JVD

3) Hypotension

g. Traumatic Aortic Disruption

a) Assess for quality of radial and femoral pulses

b) If suspected, expedite transport

64. Abdominal/Pelvic Trauma

a. General Treatments

1) Evaluate abdomen and pelvis – maintain high index of suspicion for internal injury if significant mechanism of injury is present or physical examination is remarkable for findings

~~2) Goal of fluid resuscitation is to maintain SBP of ≥ 80 mmHg. If SBP > 80 mmHg, then maintain IV/IO at TKO rate~~

~~a) Maintain palpable peripheral pulses~~

~~3) Tranexamic Acid – For patients 15 years of age and older as indicated in VCEMS Policy 734~~

b. Blunt injuries

1) Place patient in supine position if hypotension is present

c. Penetrating injuries – DO NOT REMOVE IMPALED OBJECT

1) Stabilize object manually or with bulky dressings

2) Control bleeding if present

d. Eviscerations

1) DO NOT REPLACE ABDOMINAL CONTENTS
   a) Cover wound with saline-soaked dressings
2) Control bleeding if present

e. Pregnancy
~~1)~~ Place patient in left-lateral position to prevent supine hypotensive syndrome

~~2)~~1)

f. Pelvic injuries
1) Consider wrapping a bed sheet tightly around the pelvis and tying it together for use as a binder to help control internal bleeding
   a) Assessment of pelvis should be only performed ***ONCE*** to limit additional injury
2) Control bleeding if present
3) If possible, avoid log rolling patient.

74~~.~~ Extremity Trauma

a. General Treatments
1) Evaluate CSM distal to injury
   a) If decrease or absence in CSM is present:
      (1) Manually reposition extremity into anatomical position
      (2) Re-evaluate CSM
   b) If no change in CSM after repositioning, splint in anatomical position and expedite transport
   c) Cover open wounds with sterile dressings
   d) Place ice pack on injury area (if closed wound)
   e) Splint/elevate extremity with appropriate equipment
   f) Uncontrolled hemorrhage: Tranexamic Acid – For patients 15 years of age and older as indicated in VCEMS Policy 734

b. Dislocations
1) Splint in position found with appropriate equipment

c. Penetrating injuries – DO NOT REMOVE IMPALED OBJECTS
1) Stabilize object manually or with bulky dressings
2) Control bleeding if present

d. Femur fractures
1) Utilize traction splint only if isolated mid-shaft femur fracture is suspected

2) Assess CSM before and after traction splint application

e. Amputations

1) Clean the amputated extremity with NS

2) Wrap in moist sterile gauze

3) Place in plastic bag

4) Place bag with amputated extremity into a separate bag containing ice packs

~~5)~~ Prevent direct tissue contact with the ice pack~~s~~

~~6)~~

~~7)~~

~~8)~~

~~9)~~

~~10)~~

~~11)~~

~~12)~~5)

# Chest Pain – Acute Coronary Syndrome

## BLS Procedures

Administer oxygen if dyspnea, signs of heart failure or shock, or SpO2 < 94%
Assist patient with prescribed Nitroglycerin as needed for chest pain

- Hold if SBP less than 100 mmHg

## ALS Standing Orders

Perform 12-lead ECG

- Expedite transport to closest STEMI Receiving Center if monitor interpretation meets the manufacturer guidelines for a positive STEMI ECG and/or physician states ECG is positive for STEMI.
- Notify Base hospital within 10 minutes of monitor interpretation of a positive STEMI ECG
- Document all initial and ongoing rhythm strips and ECG changes

For chest pain consistent with ischemic heart disease:

- **Aspirin**
  - PO – 324 mg
- **Nitroglycerin (DO NOT administer if ECG states inferior infarct)**
  - SL or lingual spray – 0.4 mg q 5 min for continued pain
    - No max dosage
    - Maintain SBP greater than 100 mmHg

IV/IO access

If pain persists and not relieved by NTG:

- **Pain Control**– per policy 705.19
  - Maintain SBP greater than 90 mmHg

If patient presents or becomes hypotensive:

- Lay Supine
- **Normal Saline**
  - IV/IO bolus – 500 mL -may repeat x1 for total 1000 mL.
    - Unless CHF is present

If hypotensive (SBP less than 90 mmHg) and signs of CHF are present or no response to fluid therapy*:

- **Epinephrine 10mcg/mL**
  - 1mL (10mcg) q 2 minutes, slow IV/IO push
  - Titrate to SBP of greater than or equal to 90mm/Hg

For ventricular irritability resulting in runs of ventricular tachycardia (>3 consecutive ventricular complexes):

- **Amiodarone IV/IOPB - 150 mg in 50 mL D5W infused over 10 minutes**

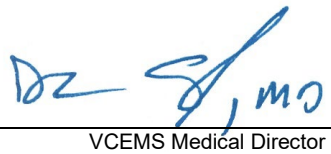
## Base Hospital Orders Only

Consult with ED Physician when orders are needed for interventions within scope but not addressed in policy.

Additional Information:

- Nitroglycerin is contraindicated in inferior infarct or when phosphodiesterase inhibitor medications [Sildenafil (Viagra and Revatio), Vardenafil (Levitra), and Tadalafil (Cialis)] have been recently used (Viagra or Levitra within 24 hours; Cialis within 48 hours). These medications are most commonly used to treat erectile dysfunction or pulmonary hypertension. NTG then may only be given by ED Physician order
- Appropriate dose of Aspirin is 324mg. Aspirin may be withheld if able to confirm that patient has received appropriate dose prior to arrival. If unable to confirm appropriate dose, administer Aspirin, up to 324mg.

Effective Date: July 1, 2020
Next Review Date: January 31, 2022
Date Revised: January 16, 2020
Last Reviewed: January 16, 2020



VCEMS Medical Director

# Crush Injury/Syndrome

## ADULT

## PEDIATRIC

## BLS Procedures

Perform spinal precautions as indicated
Determine Potential vs. Actual Crush Syndrome
Administer oxygen as indicated
Maintain body heat

## ALS Standing Orders

Potential for Crush Syndrome
- IV/IO access
- Release compression
- Monitor for cardiac dysrhythmias

### ADULT

Crush Syndrome
- Initiate 2nd IV/IO access
- **Normal Saline**
  - IV/IO bolus – 1 Liter
    - ~~Caution with cardiac and/or renal history~~
- **Sodium Bicarbonate**
  - IV/IO mix – 1 mEq/kg
    - Added to 1st Liter of Normal Saline
- **Albuterol**
  - Nebulizer – 5 mg/6 mL
    - Repeat as needed
- **Pain Control**– Per Policy 705.19
- Release compression
- Monitor for cardiac dysrhythmias
- For cardiac dysrhythmias:
  - **Calcium Chloride**
    - IV/IO – 1 g over 1 min

For continued shock
- *Repeat* **Normal Saline**
  - IV/IO bolus – 1 Liter

For persistent hypotension after fluid bolus:
- Epinephrine 10 mcg/mL
  - 1 mL (10 mcg) q 2 minutes, slow IV/IO push
  - Titrate to SBP of greater than or equal to 90 mm/Hg

### PEDIATRIC

Crush Syndrome
- Initiate 2nd IV/IO access if possible or establish IO
- **Normal Saline**
  - IV/IO bolus – 20 mL/kg
    - ~~Caution with cardiac and/or renal history~~
- **Sodium Bicarbonate**
  - IV/IO mix– 1 mEq/kg
    - Added to 1st Liter of Normal Saline
- **Albuterol**
  - **Patient ≤ 30 kg**
    - Nebulizer – 2.5 mg/3 mL
      - Repeat as needed
  - **Patient > 30 kg**
    - Nebulizer – 5 mg/6 mL
      - Repeat as needed
- **Pain Control**– Per Policy 705.19
- Release compression
- Monitor for cardiac dysrhythmias
- For cardiac dysrhythmias:
  - **Calcium Chloride**
    - IV/IO – 20 mg/kg over 1 min

For continued shock
- *Repeat* **Normal Saline**
  - IV/IO bolus – 20 mL/kg

For persistent hypotension after fluid bolus:
- Epinephrine 10 mcg/mL
  - 0.1 mL/kg (1 mcg/kg) q 2 minutes, slow IV/IO push
  - Max single dose of 1 mL or 10 mcg
  - Titrate to SBP of greater than or equal to 80 mm/Hg

## Base Hospital Orders Only

Consult with ED Physician when orders are needed for interventions within scope but not addressed in policy

Additional Information:
- ~~Refer to VCEMS Policy 735 for additional information on preparing push dose epinephrine solution.~~
- Potential Crush Syndrome – Continuous crush injury to torso or extremity above wrist or ankle for 2 hours or less.
- Crush Syndrome – Continuous crush injury to torso or extremity above wrist or ankle for greater than 2 hours.
- ~~If elderly or cardiac history is present, use caution with fluid administration. Reassess and treat accordingly.~~
- Dysrhythmias are usually secondary to Hyperkalemia. ECG monitor may show: Peaked T-waves, Absent P-waves, widened QRS complexes, bradycardia
- Calcium Chloride and Sodium Bicarbonate precipitate when mixed. Strongly consider starting a second IV (if feasible) for administration of Calcium Chloride

Effective Date: December 1, 2020
Next Review Date: October 31, 2022

Date Revised: October 26, 2020
Last Reviewed: October 26, 2020

VCEMS Medical Director

# Nerve Agent / Organophosphate Poisoning

The incident commander is in charge of the scene and you are to follow his/her direction for entering and exiting the scene. Patients in the hot and warm zones MUST be decontaminated prior to entering the cold zone.

| ADULT | PEDIATRIC |
|---|---|
| **BLS Procedures** | |
| *Patients that are exhibiting obvious signs of exposure (SLUDGEM) of organophosphate exposure and/or nerve agents*<br><br>Maintain airway and position of comfort<br><br>Administer oxygen as indicated<br><br>• **Mark I or DuoDote Antidote Kit (If Available)**<br>  • Mild Exposure: IM x 1<br>  • ~~Moderate Exposure: IM x1~~<br>  • May repeat in 10 minutes if symptoms persist<br>  ○ Severe Exposure: IM x 3 in rapid succession, rotating injection sites | |
| **ALS Prior to Base Hospital Contact** | |
| *Patient's that are exhibiting obvious signs of exposure (SLUDGEM) of Organophosphate exposure and/or Nerve Agents*<br>*If not already administered by BLS personnel:*<br><br>• **Mark I or DuoDote Antidote Kit (If Available)**<br>  • Mild Exposure: IM x 1<br>  • ~~Moderate Exposure: IM x1~~<br>  • May repeat in 10 minutes if symptoms persist<br>  ○ Severe Exposure: IM x 3 in rapid succession, rotating injection sites<br><br>When Mark I or DuoDote Antidote kit is not available:<br><br>• **Atropine**<br>  • Mild or Severe Exposure:<br>  • IV/IO – 2 mg<br>  ~~○~~ • May repeat q 5 minutes for persistent symptoms<br><br>For seizures:<br>• Midazolam<br>  ○ IV/IO – 2 mg<br>  • Repeat 1 mg q 2 min as needed<br>  • Max 5 mg<br>  ○ IM – 0.1 mg/kg<br>  • Max 5 mg | *Patient's that are exhibiting obvious signs of exposure (SLUDGEM) of Organophosphate exposure and/or Nerve Agents*<br>*If not already administered by BLS personnel:*<br><br>• **Mark I or DuoDote Antidote Kit (If Available)**<br>  • Mild Exposure: IM x 1<br>  • ~~Moderate Exposure: IM x1~~<br>  • May repeat in 10 minutes if symptoms persist<br>  • Severe Exposure: IM x 3 in rapid succession, rotating injection sites<br><br>When Mark I or DuoDote Antidote kit is not available:<br><br>• **Atropine**<br>  • Mild or Severe Exposure:<br>  • IV/IO – 0.05 mg/kg<br>  ~~•~~ May repeat q 5 minutes for persistent symptoms<br><br>~~For seizures~~:<br>• Midazolam<br>  • IM – 0.1 mg/kg<br>  • Max 5 mg<br>  • IV/IO – 0.1 mg/kg<br>  • Repeat q 2 min as needed<br>  • Max single dose 2 mg<br>  • Max total dose 5 mg |
| **Base Hospital Orders Only** | |
| Consult with ED Physician for further treatment measures | |

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Effective Date: December 1, 2020
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VCEMS Medical Director

- DuoDote contains 2.1 mg Atropine Sulfate and 600 mg Pralidoxime Chloride.
- **Diazepam** is available in the CHEMPACK and may be deployed in the event of a nerve agent exposure. Paramedics may administer diazepam using the following dosages for the treatment of seizures:
  - **Adult**: 5 mg IM/IV/IO q 10 min titrated to effect *(max 30 mg)*
  - **Pediatric**: 0.1 mg/kg IV/IM/IO (max initial dose 5 mg) over 2-3 min q 10 min titrated to effect *(max total dose 10 mg)*
- ~~Mild exposure with~~Mild Exposure symptoms:
  - Miosis, rhinorrhea, drooling, sweating, blurred vision, nausea, bradypnea or tachypnea, nervousness, fatigue, minor memory disturbances, irritability, unexplained tearing, wheezing, tachycardia, bradycardia, SOB, muscle weakness and fasciculations, GI effects.
- ~~Moderate exposure with symptoms:~~
  - ~~Miosis, rhinorrhea, SOB, wheezing, secretions, soft muscle weakness and fasciculations, GI effects~~
- ~~Severe exposure with symptoms~~Severe Exposure:
  - Strange confused behavior, severe difficulty breathing, twitching, unconsciousness, seizing, flaccid, apnea pinpoint pupils, ~~,~~ involuntary defecation, urination

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| COUNTY OF VENTURA<br>HEALTH CARE AGENCY | EMERGENCY MEDICAL SERVICES<br>POLICIES AND PROCEDURES |
|---|---|
| Policy Title:<br>Supraglottic Airway Devices | Policy Number:<br>729 |
| APPROVED:<br>Administration: Steven L. Carroll, Paramedic | Date: July 1, 2020 |
| APPROVED:<br>Medical Director: Daniel Shepherd, MD | Date: July 1, 2020 |
| Origination Date: November 13, 2014<br>Date Revised: January 16, 2020<br>Date Last Reviewed: January 16, 2020<br>Review Date: January 31, 2020 | Effective Date: July 1, 2020 |

I. Purpose: To define the indications and use of supraglottic airway devices.

II. Authority: California Health and Safety Code, §1798, §1798.2; §1798.160 and §1798.170, and California Code of Regulations, Title 22, §100145 and §100146.

III. Policy: Paramedics may utilize the VCEMSA approved supraglottic airway device (SAD) for adult and pediatric patients according to this policy and Policies 705 and 710. The VCEMSA approved SAD may be used as the primary advanced airway device by paramedics who opt to use it during the care of patients for whom they believe it would be the most appropriate airway management device. Alternately, the VCEMSA approved SAD shall be used if BVM ventilation is inadequate and attempts at endotracheal intubation have failed.

IV. Procedure:

A. Indications:

1. Cardiac arrest.
2. Respiratory arrest or severe respiratory compromise AND absent gag reflex.

B. Contraindications:

1. Intact gag reflex.
2. Caustic ingestion
3. Unresolved complete airway obstruction
4. Trismus or limited ability to open the mouth such that the device cannot be Inserted
5. Oral trauma
6. Distorted anatomy that prohibits proper placement (e.g. oropharyngeal mass or abscess)

C. Preparation:

1. Sizing:

A. Choose correct size based on patient's weight and manufacturer's recommendations.

2. There will be no more than 2 attempts, each no longer than 40 seconds.

3. For patients in cardiac arrest, chest compressions will not be interrupted.

5. Generously lubricate the cuff with a water-based lubricant.

D. Placement:

1. Remove dentures if present

2. Tilt the patient's head back - unless there is a suspected cervical spine injury.

3. Open the patient's mouth and insert the SAD per the manufacturer's recommendations. A laryngoscope may be used if laryngoscopy is performed to inspect for foreign body.

4. Gently advance the SAD into position in the pharynx by applying forward pressure on the tip of the tube while lifting up on the jaw

5. Return head to neutral position.

6. Attach capnography airway adapter and bag-valve device and verify placement by capnography waveform.

9. If 2 attempts at SAD placement are unsuccessful, attempt again to ventilate the patient with BVM.

10. Secure the SAD with appropriate strap.

11. If patient vomits, do not remove SAD. May turn patient on side, suction both SAD and oropharynx.

E. Documentation:

1. Documentation per Policy 1000.

| COUNTY OF VENTURA<br>HEALTH CARE AGENCY | | EMERGENCY MEDICAL SERVICES<br>POLICIES AND PROCEDURES |
|---|---|---|
| Policy Title<br>ALS Base Hospital Standards | | Policy Number:<br>410 |
| APPROVED<br>Administration: | Steven L. Carroll, Paramedic | Date: September 1, 2018 |
| APPROVED<br>Medical Director: | Daniel Shepherd, MD | Date: September 1, 2018 |
| Origination Date:<br>Date Revised:<br>Date Last Reviewed:<br>Review Date: | August 22, 1986<br>August 9, 2018<br>August 9, 2018<br>August 31, 2021 | Effective Date: September 1, 2018 |

I. PURPOSE: To define the criteria, which shall be met by an acute care hospital in Ventura County for Base Hospital (BH) designation.

II. AUTHORITY: Health and Safety Code, Division 2.5, Sections 1798, 1798.101, 1798.105, 1798.2 and California Code of Regulations, Title 22, Section 100175.

III. POLICY:

A. An Advanced Life Support (ALS) BH, approved and designated by the Ventura County Emergency Medical Services (VCEMS), shall:

1. Meet all requirements of an ALS Receiving Hospital (RH) per VCEMS Policy 420.
2. Have an average emergency department (ED) census of 1200 or more visits per month.
3. Have the capability to provide, at all times, operational phone with the capability to record the communications, between the BH and paramedics.
    a. If the communications capability of the BH is interrupted, the ALS provider and the nearest BH shall be notified immediately by telephone.
    b. ALS calls shall be routed to the nearest BH until communication capability is restored and telephone notification of the ALS provider and nearest BH is made.
    c. All equipment used for ALS communications shall operate within the frequency requirements of the Ventura County Communications Department. At the time that a countywide communication system is implemented, all ALS providers shall comply with the Ventura County Communications Department ALS communications plan.
4. Assure that communication between the BH and ALS Unit for each ALS call shall be provided only by the BH ED physician or Ventura County authorized Mobile Intensive Care Nurse (MICN) by radio or telephone.
5. Designate a Prehospital Liaison Physician (PLP) who shall be a physician on the hospital staff, licensed in the State of California and have experience in emergency medical care. The PLP shall:

a. Be regularly assigned to the ED.
b. Have experience in and knowledge of BH operations.
c. Be responsible for overall medical control and supervision of the ALS program within the BH's area of responsibility including review of patient care records and critique of personnel involved.
d. Be responsible for reporting deficiencies in patient care to VCEMS.
e. Coordinate BH activities with RH, Prehospital Services Committee (PSC) and VCEMS policies and procedures.
f. Attend PSC meetings.
g. Provide ED staff education.
h. Evaluate paramedics for clinical performance and makes recommendation to VCEMS.
j. Evaluate MICNs for authorization/reauthorization and makes recommendation to VCEMS.

6. Have on duty, on a 24-hour basis, one (1) MICN who meets the criteria in VCEMS Policy 321.
7. Identify an MICN with experience in, and knowledge of, BH communications operations and VCEMS policies and procedures as a Prehospital Care Coordinator (PCC) to assist the PLP in the medical control, supervision, and continuing education (CE) of prehospital care personnel. The PCC shall be a full-time or full-time equivalency employee whose responsibility is dedicated to the oversight and management of the prehospital / EMS duties of the BH.
8. Provide for the CE of prehospital care personnel, paramedics MICNs, EMTs, and first responders, in accordance with VCEMS:
9. Cooperate with and assist the PSC and the VCEMS medical director in the collection of statistics and review of necessary records for program evaluation and compliance.
10. Assure that paramedics perform medical procedures only under medical direction of a physician or Ventura County authorized MICN except for approved standing orders.
11. Agree to maintain all recorded communications and prehospital data in a manner consistent with hospital data requirements. Prehospital data includes, but is not limited to, the recording of the prehospital communication, prehospital care record, paramedic BH communications form and documentation of telephone communication with the RH (if utilized). All prehospital data except the recording will be integrated with the patient chart.

B. There shall be a written agreement between the BH and VCEMS indicating the commitment of hospital administration medical staff, and emergency department staff to meet requirements for ALS program participation as specified by State regulations and VCEMS policies and procedures.

C. The VCEMS shall review its agreement with each BH at least every two years.

D. The VCEMS may deny, suspend, or revoke the approval, of a BH for failure to comply with any applicable policies, procedures, or regulations. Requests for review or appeal of such decisions shall be brought to the PSC and Board of Supervisors for appropriate action.

E. A hospital wishing to become an ALS BH in Ventura County must meet Ventura County BH Criteria and agree to comply with Ventura County regulations.

1. Application:
   Eligible hospitals shall submit a written request for BH approval to VCEMS documenting the compliance of the hospital with the Ventura County BH Criteria.
2. Approval:
   a. Program approval or disapproval shall be made in writing by the VCEMS to the requesting BH within a reasonable period of time after receipt of the request for approval and all required documentation. This time period shall not exceed three (3) months.
   b. The VCEMS shall establish the effective date of program approval in writing upon the satisfactory documentation of compliance with all the program requirements.
3. Withdrawal of Program Approval:
   Non-compliance of any criterion associated with program approval, use of non-certified personnel, or non-compliance with any other Ventura County regulation applicable to a BH, may result in withdrawal, suspension or revocation of program approval by the VCEMS.

F. Advanced Life Support BHs shall be reviewed on an annual basis.

1. All BH's shall receive notification of evaluation from the VCEMS.
2. All BH's shall respond in writing regarding program compliance.
3. On-site visits for evaluative purposes may occur.
4. Any BH shall notify the VCEMS by telephone, followed by a letter within 48 hours of changes in program compliance or performance.

COUNTY OF VENTURA
EMERGENCY MEDICAL SERVICES

BASE HOSPITAL
CRITERIA COMPLIANCE CHECK LIST

Base Hospital: _____ Date: _____

| | YES | NO |
|---|---|---|
| An Advanced Life Support (ALS) Base Hospital (BH), approved and designated by the Ventura County Emergency Medical Services (VCEMS), shall: | | |
| 1. Meet all requirements of an ALS Receiving Hospital (RH) per (VCEMS) Policy 420. | | |
| 2. Have the capability to provide, at all times, operational phone with the capability to record the communications, between the BH and paramedics. If the communications capability of the BH is interrupted, the ALS provider and the nearest BH shall be notified immediately by telephone. All equipment used for ALS communications shall operate within the frequency requirements of the Ventura County Communications Department. At the time that a countywide communication system is implemented, all ALS providers shall comply with the Ventura County Communications Department ALS communications plan. | | |
| 3. Have the capability to provide, at all times, operational phone with the capability to record the communications, between the BH and paramedics. | | |
| 4. Designate a Prehospital Liaison Physician (PLP) who shall be a physician on the hospital staff, licensed in the State of California, and have experience in emergency medical care. The PLP shall: | | |
| • Be regularly assigned to the Emergency Department (ED). | | |
| • Have experience in and knowledge of BH operations. | | |
| • Be responsible for overall medical control and supervision of the ALS program within the BH's area of responsibility including review of patient care records and critique of personnel involved. | | |
| • Be responsible for reporting deficiencies in patient care to VCEMS. | | |
| • Coordinate BH activities with RH, Prehospital Services Committee (PSC) and VCEMS policies and procedures. | | |
| • Attend PSC meetings. | | |
| • Provide ED staff education. | | |
| • Evaluate MICNs for authorization/reauthorization and make recommendation to VCEMS. | | |
| 5. All BH MICN's shall: | | |
| • Be authorized in Ventura County by the VCEMS Medical Director. | | |
| • Be assigned only to the ED while functioning as an MICN. | | |
| • Maintain current ACLS certification. | | |
| • Be a BH employee. | | |

| | | YES | NO |
|---|---|---|---|
| 6. | Identify an MICN with experience in and knowledge of BH communication operations and VCEMS policies and procedures as a Prehospital Care Coordinator (PCC) to assist the PLP in the medical control, supervision, and continuing education (CE) of prehospital care personnel. The PCC shall be a full-time or full-time equivalency employee whose responsibility is dedicated to the oversight and management of the prehospital / EMS duties of the BH. | | |
| 7. | Provide for the CE of prehospital care personnel (paramedics MICN's, EMTs, and first responders), in accordance with VCEMS Policy 1131: | | |
| 8. | Cooperate with and assist the Prehospital Services Subcommittee (PSC) and the VCEMS MD in the collection of statistics and review of necessary records for program evaluation and compliance. | | |
| 9. | Assure that paramedics perform medical procedures only under medical direction of a physician or Ventura County authorized MICN except for approved standing orders and medical procedures. | | |
| 10. | Agree to maintain all recorded communications and prehospital data in a manner consistent with hospital data requirements. Prehospital data includes, but is not limited to the tape of the prehospital communication, prehospital care record paramedic BH communications form, documentation of telephone communication with the RH (if utilized). All prehospital data except the tape recording will be integrated with the patient chart. | | |
| 11 | Submit a letter to VCEMS indicating the commitment of hospital administration medical staff, and emergency department staff to meet requirements for program participation as specified by State regulations and VCEMS policies and procedures. | | |

# Bites and Stings

## BLS Procedures

Animal/insect bites:

- Flush site with sterile water
- Control bleeding
- Apply bandage

Snake bites/envenomation:

- Mark the edge of the wound ASAP and then every 10-15 minutes
- Remove rings and constrictions
- Immobilize the affected part in an ***elevated*** position
- Avoid excessive activity

Bee stings:

- If present, quickly remove stinger
- Apply ice pack

Jellyfish stings:

- Rinse thoroughly with normal saline
  - ***DO NOT***:
    - Rinse with fresh water
    - Rub with wet sand
    - Apply heat

All other marine animal stings:

- If present, remove barb
- Immerse in hot water if available

Administer oxygen as indicated

All bites other than snake bites may be treated as a BLS call

## ALS Standing Orders

IV access for snake bites

Monitor for allergic reaction or anaphylaxis

**Pain Control**– per Policy 705.19

## Base Hospital Orders Only

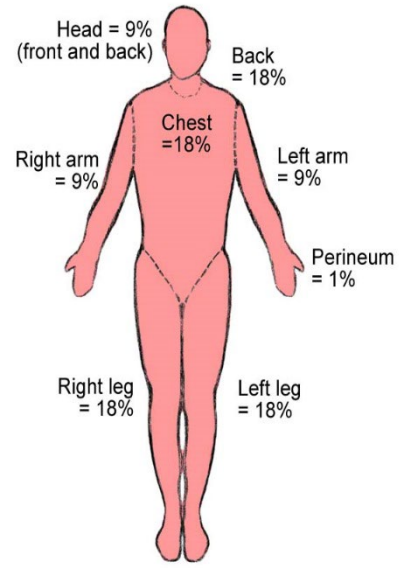
Consult with ED Physician for further treatment measures

Effective Date: July 1, 2020
Next Review Date: January 31, 2022
Date Revised: January 16, 2020
Last Reviewed: January 16, 2020

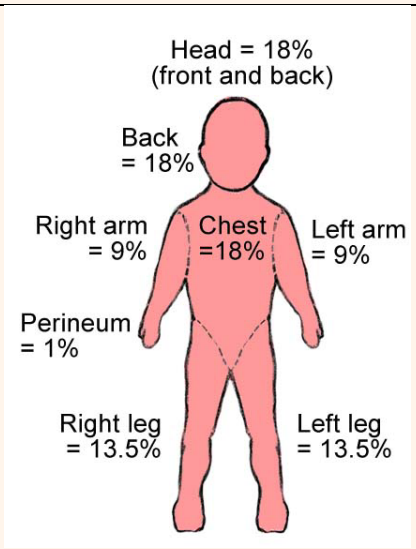
VCEMS Medical Director

# Burns

## ADULT




## PEDIATRIC




## BLS Procedures

- Stop the burning process
  - Thermal
    - Put out fire using water or some other non-hazardous, non-flammable liquid. Fire extinguisher may be used.
  - Liquid Chemical
    - Flush area with water.
  - Powdered Chemical
    - Brush off as much as possible prior to flushing area with copious amounts of water.
  - Electrical
    - Turn off power source and safely remove victim from hazard area.
- Remove rings, constrictive clothing and garments made of synthetic material
- Assess for chemical, thermal, electrical, or radiation burns and treat accordingly
- If less than 10% Total Body Surface Area (TBSA) is burned, cool with saline dressings.
- For TBSA greater than 10%, cover burned area with dry sterile dressings first, followed by a clean dry sheet.
- Once area is cooled, remove saline dressings and cover with dry, sterile burn sheets
- Elevate burned extremities if possible
- Maintain body heat at all times
- Administer oxygen as indicated

## ALS Standing Orders

| ADULT | PEDIATRIC |
|---|---|
| IV/IO access<br>**Pain Control** – per Policy 705.19<br><br>If TBSA greater than 10% or hypotension is present:<br>• **Normal Saline**<br>  ○ IV/IO bolus – 1 Liter | IV/IO access<br>**Pain Control –** per Policy 705.19<br><br>If TBSA greater than 10% or hypotension is present:<br>• **Normal Saline**<br>  ○ IV/IO bolus – 20 mL/kg |

## Base Hospital Orders Only

Consult with ED Physician for further treatment measures

Additional Information

- Hypothermia is a concern in patients with large body surface area burns. As moist dressings increase the risk of hypothermia, medication is the preferred method of pain control in these patients.

Effective Date: July 1, 2020
Next Review Date: January 31, 2022

Date Revised: January 16, 2020
Last Reviewed: January 16, 2020

VCEMS Medical Director

| COUNTY OF VENTURA<br>EMERGENCY MEDICAL SERVICES | | HEALTH CARE AGENCY<br>POLICIES AND PROCEDURES |
|---|---|---|
| Policy Title:<br>Needle Thoracostomy | | Policy Number:<br>715 |
| APPROVED:<br>Administration: | Steven L. Carroll, Paramedic | Date: December 1, 2019 |
| APPROVED:<br>Medical Director | Daniel Shepherd, M.D. | Date: December 1, 2019 |
| Origination Date:<br>Date Revised:<br>Date Last Reviewed:<br>Review Date: | August 2010<br>October 10, 2019<br>October 10, 2019<br>October 31, 2021 | Effective Date: December 1, 2019 |

I. Purpose: To define the indications, procedure and documentation for needle thoracostomy use by paramedics.

II. Authority: Health and Safety Code, Sections 1797.220 and 1798. California Code of Regulations, Title 22, Sections 100145 and100169.

III. Policy: Paramedics may perform needle thoracostomy on patients with a suspected tension pneumothorax in accordance with this policy.

IV. Procedure:

A. Indications

1. Patients with **ALL** of the following:
   a. Clinical suspicion of pneumothorax (e.g., trauma, dyspnea, chest pain),
   b. Systolic Blood Pressure less than 90 mmHg (adults) or 70 mmHg (pediatrics less than 40 kg) and signs of hypoperfusion.
   c. Absent or significantly decreased breath sounds on the affected side.
2. Patients in traumatic cardiac arrest:
   a. Bilateral needle thoracostomy should be performed when patients meet criteria for resuscitation per policy 606 and have known or suspected torso trauma.

B. Contraindications: None in this setting

C. Equipment

1. Antiseptic solution
2. 10 ml syringe
3. Adults and pediatric patients over 40kg: 3-3.5 inch (8.0-8.5 cm), 10 to 14 gauge over-the-needle catheter
   Peds under 40kg: 1.25-inch (3cm), 14 to 16 gauge over-the-needle catheter
4. Connection tubing
5. Heimlich valve
6. Tape

D. Placement

1. Attach the syringe to the needle/catheter.
2. Identify and prep the site with antiseptic solution:

**Preferred Adult Site:**

- The lateral placement is the preferred method which is the fourth intercostal space in the anterior-axillary line (lateral to nipple).

**Preferred Adult *Alternative* Site and Preferred Pediatric Site:**

- If unable to access lateral placement due to patient size, position, or failed attempt, locate the second intercostal space in the mid-clavicular line.

3. Insert the needle/catheter perpendicular to the skin over the rib and direct it just over the top of the rib into the intercostal space.
4. After inserting the needle under the skin, maintain negative pressure in the syringe.
5. Advance the needle/catheter through the parietal pleura until a “pop” is felt and/or air or blood enters the syringe, then advance **ONLY** the catheter (not the syringe/needle) until the catheter hub is against the skin.

**CAUTION:** Do not reinsert needle into cannula due to danger of shearing cannula.

6. Hold the catheter in place and remove and discard the syringe and needle.
7. Attach tubing and Heimlich valve.
8. Secure the catheter hub to the chest wall with dressings and tape.
9. Reevaluate the patient (VS, lung sounds).

E. Documentation

1. All needle thoracostomy attempts must be documented in the Ventura County Electronic Patient Care Reporting System (VCePCR).
2. Documentation will include location, size of equipment, number of attempts, success, complications, patient response and any applicable comments.