S-SV EMS Policy/Protocol Manual Update #79
Effective 10/1/2026

Final Policies & ALS/BLS Protocols

Note: Individual Policy/Protocol PDF documents will be updated on the S-SV EMS website and mobile applications by the 10/1/2026 effective date

S-SV EMS Policy/Protocol Manual Update #79
Policies

Sierra – Sacramento Valley EMS Agency Program Policy		
Base/Modified Base Hospital Recording & Maintenance Of EMS Patient Care Communications		
	Effective: 10/01/2026	Next Review: 04/2029	**306**
	Approval: Troy M. Falck, MD – Medical Director		SIGNATURE ON FILE
	Approval: John Poland – Executive Director		SIGNATURE ON FILE

PURPOSE:

To establish base/modified base hospital requirements for recording and maintaining EMS patient care communication.

AUTHORITY:

A. HSC, Div. 2.5, § 1797,220, 1798.104, 1798.2.

B. CCR, Title 22, Div. 9.

C. GC, Section 34090.6.

POLICY:

A. Base/modified base hospitals shall record all telephone and radio EMS patient care communications with prehospital personnel. Audio files shall be maintained for a minimum of 100 days, or longer if required for evidence or pending litigation.

B. Base/modified base hospital personnel shall document all telephone and radio EMS patient care related communications with prehospital personnel on an appropriate hospital developed report/log. EMS patient care records and hospital communication reports/logs shall be maintained for a minimum of seven (7) years, or, if for a minor, one (1) year past the age of majority, whichever is greater.

C. All communication records shall be maintained in such a manner to allow for medical control and continuing education of prehospital personnel. Quality Improvement records shall be maintained for a minimum of (2) two years.

D. In the event of pending litigation or evidence requests, all audio files and written records shall be maintained until completion/resolution of all issues arising therefrom.

Sierra – Sacramento Valley EMS Agency Program Policy			
Paramedic IFT Optional Skills Transferring Hospital Requirements			
	Effective: 10/01/2026	Next Review: 07/2029	**341**
	Approval: Troy M. Falck, MD – Medical Director		SIGNATURE ON FILE
	Approval: John Poland – Executive Director		SIGNATURE ON FILE

PURPOSE:

To establish the transferring hospital requirements for the utilization of any of the following paramedic interfacility transport (IFT) optional skills:

A. Monitoring of magnesium sulfate, nitroglycerin, heparin, &/or amiodarone infusions.

B. Monitoring of blood transfusions.

C. Utilization of an Automatic Transport Ventilator (ATV).

D. Utilization of non-invasive High Flow Nasal Cannula (HFNC).

AUTHORITY:

A. HSC, Division 2.5, § 1798.200, § 1798.206, § 1798.214, § 1797.218, § 1797.220, § 1798.2, § 1798.170, § 1798.172.

B. CCR, Title 22, Chapter 3.3.

POLICY:

A. Only prehospital provider agencies approved by S-SV EMS to utilize paramedic IFT optional skills are authorized to provide such services.

B. Only paramedics who have successfully completed an S-SV EMS approved paramedic IFT optional skills training program are authorized to utilize such skills.

C. The following criteria apply to patients who are candidates for the utilization of paramedic IFT optional skills:

1. Magnesium sulfate, nitroglycerin, heparin, &/or amiodarone infusions:

   a. The infusion should be running for at least 10 minutes prior to transport.

   b. Patients should have maintained stable vital signs for the previous 30 minutes.

   c. Patients will not have more than two (2) medication infusions running, exclusive of potassium chloride concentrations authorized under the paramedic basic scope of practice, during transport.

2. Blood transfusions:

   a. Transfusions shall be pre-existing in peripheral or central IV lines.

3. ATV:
    a. Paramedics shall not initiate ventilator support.
4. Non-invasive HFNC:
    a. Paramedics shall not initiate non-invasive HFNC.
    b. Non-invasive HFNC should be utilized by the sending facility for at least one (1) hour prior to transport.

PROCEDURE:

A. The paramedic shall receive written orders from the transferring physician prior to leaving the transferring hospital. These orders shall include a telephone number where the transferring and/or base/modified base hospital physician can be reached during transport, in addition to the following information:
    1. Magnesium sulfate, nitroglycerin, heparin, &/or amiodarone Infusions:
        a. Type of solution.
        b. Dosage and rate of infusion.
    2. Blood Transfusions:
        a. Blood type and unit identifying number.
        b. Parameters for regulation of the transfusion rate.
    3. ATV:
        a. Parameters for maintaining and adjusting ventilations during transport.
    4. Non-invasive HFNC:
        a. Parameters for maintaining and titrating flow (LPM), FiO2, and SpO2 goals for transport.
B. The transferring hospital is responsible for mixing and labeling the infusion. If the existing infusion will not be sufficient for the transport duration, the hospital must provide additional clearly labeled pre-mixed infusion(s).
C. Transferring physicians must be aware of the general paramedic scope of practice as well as the parameters for utilization of paramedic interfacility transport optional skills contained in the S-SV EMS Paramedic Interfacility Transport (IFT) Optional Skills Policy (841).

Sierra – Sacramento Valley EMS Agency Program Policy			
Emergency Medical Dispatch (EMD)			
	Effective: 10/01/2026	Next Review: 04/2029	**405**
	Approval: Troy M. Falck, MD – Medical Director		SIGNATURE ON FILE
	Approval: John Poland – Executive Director		SIGNATURE ON FILE

PURPOSE:

To establish criteria for EMD approval/utilization in the S-SV EMS region.

AUTHORITY:

A. HSC, Div. 2.5, § 1797.

B. CCR, Title 22, Div. 9.

POLICY:

A. No later than January 1, 2027, all public safety agencies that process 911 emergency medical response requests, shall provide a minimum of the following EMD prearrival medical instructions:

1. Airway and choking instructions for infants, children, and adults.
2. Automatic external defibrillator (AED) and CPR instructions for children and adults.
3. Childbirth instructions.
4. Hemorrhage/bleeding control instructions.
5. Epinephrine auto-injector administration instructions for suspected anaphylaxis.
6. Naloxone administration instructions for suspected narcotics overdoses.

B. A public safety agency may also satisfy the above minimum EMD requirements by one of the following methods:

1. Utilizing a nationally recognized EMD program that includes all prearrival medical instructions listed above, or;
2. Contracting with another agency that provides all prearrival medical instructions listed above.

C. A public safety agency that processes 911 emergency medical response requests may additionally utilize a nationally recognized EMD program that consists of Medical Priority Dispatch System (MPDS) processes used to determine the appropriate number, type, and response priority of assigned EMS resources.

D. A private ground ambulance provider may also utilize a nationally recognized EMD program for providing applicable prearrival medical instructions and MPDS services.

E. All EMD providers, programs and services in the S-SV EMS region shall be approved by the S-SV EMS Medical Director. Approved EMD providers, programs and services are subject to periodic review by S-SV EMS.

F. The S-SV EMS Medical Director is authorized to exercise medical control of all EMD programs/services within the S-SV EMS region.

CONTINOUS QUALITY IMPROVEMENT (CQI):

A. A public safety agency that provides only the minimum EMD prearrival medical instructions listed in this policy ('POLICY' Section, Item A.1. - A.6.) shall work collaboratively with S-SV EMS in providing EMD data for CQI purposes.

B. Any public or private EMS dispatch center that utilizes a nationally recognized EMD program must maintain standardized CQI program, which includes the following:

1. An EMD CQI coordinator who meets the following minimum qualifications:

   a. A currently licensed/certified physician, RN, PA, paramedic, AEMT or EMT, who has at least two (2) years of practical experience within the last five (5) years in prehospital EMS with a basic knowledge of EMD, and who has received specialized training in the CQI/case review process, or;

   b. An emergency medical dispatcher with at least two (2) years of practical experience within the last five (5) years, and who has received specialized training in the CQI/case review process.

2. The EMD CQI coordinator will work collaboratively with S-SV EMS in providing data used for EMS system analysis.

3. EMS dispatch center and personnel performance will be evaluated through reviewing of dispatch records, audio recordings and applicable provider field records. All written CQI records shall be maintained for a minimum of two (2) years. EMD programs shall maintain telecommunication records for a minimum of 100 days, or longer if required for evidence or pending litigation.

PROCEDURE:

A. EMD program/service requests shall be submitted to S-SV EMS, and shall include the following:

1. The type(s) of EMD services to be provided.

2. A plan for how EMD services will be provided.

3. The name and qualifications of the EMD program administrator.

4. A description of the EMD provider CQI program (if applicable).

5. The name and qualifications of the CQI coordinator (if applicable).

B. Requests to provide EMD services will be processed within 30 calendar days of submission of all required program materials.

C. If a request to provide EMD services is denied, S-SV EMS will provide written notice of the reason for denial, and specific recommendations to fulfill compliance requirements (if any) within 30 calendar days of receiving all required program materials.

   1. If a public safety agency's request to provide EMD services is not timely approved or is denied, an appeal shall be conducted in conformance with the administrative adjudication proceedings set forth in Chapter 5 (commencing with Section 11500) of Part 1 of Division 3 of Title 2 of the California Government Code. A final decision rendered pursuant to this appeal may be further appealed to a court of competent jurisdiction.

   2. If a private ground ambulance provider's request to provide EMD services is not timely approved or is denied, an appeal may be made to the S-SV EMS JPA Governing Board of Directors. The decision rendered by the S-SV EMS JPA Governing Board of Directors shall be final.

D. If an approval to provide EMD services is suspended or revoked, S-SV EMS will provide written notice of the reason for the suspension or revocation. This written notice will include the effective date of such suspension or revocation and any requirements necessary to become compliant (if applicable).

Sierra – Sacramento Valley EMS Agency Program Policy		
Paramedic IFT Optional Skills Provider Agency Approval, Requirements & Responsibilities		
Effective: 10/01/2026	Next Review: 07/2029	**441**
Approval: Troy M. Falck, MD – Medical Director		SIGNATURE ON FILE
Approval: John Poland – Executive Director		SIGNATURE ON FILE

PURPOSE:

A. To establish the provider agency application and approval process for utilization of any of the following paramedic interfacility transport (IFT) optional skills:

1. Monitoring of magnesium sulfate, nitroglycerin, heparin, &/or amiodarone infusions.
2. Monitoring of blood transfusions.
3. Utilization of an automatic transport ventilator (ATV).
4. Utilization of non-invasive High Flow Nasal Cannula (HFNC).

B. To establish the requirements and responsibilities of S-SV EMS authorized paramedic IFT optional skills providers.

AUTHORITY:

A. HSC, Division 2.5, § 1798.200, § 1798.206, § 1798.214, § 1797.218, § 1797.220, § 1798.2, § 1798.170, § 1798.172.

B. CCR, Title 22, Chapter 3.3.

POLICY:

A. Only S-SV EMS permitted ALS ambulance transport providers may be authorized to utilize paramedic IFT optional skills.

B. Only appropriately trained paramedics who are on duty with an authorized paramedic IFT optional skills provider may utilize paramedic IFT optional skills.

C. A provider agency requesting approval to utilize any of the paramedic IFT optional skills shall submit a 'Paramedic IFT Optional Skills Prehospital Provider Application' (441-A) to S-SV EMS. A complete application shall include all the following:

1. A letter of intent to utilize paramedic IFT optional skills, including a list of the optional skills that will be utilized.
2. The proposed paramedic IFT optional skills program implementation date, and the anticipated utilization frequency/volume of paramedic IFT optional skills.
3. The number of personnel to be trained to utilize paramedic IFT optional skills.

4. A description of the provider's paramedic IFT optional skills training program, which shall meet the following minimum requirements:
    a. Utilization of S-SV EMS approved training program curriculum, including a final written and skills examination.
    b. Utilization of physician or RN instructors to teach the approved curriculum.
        i. Paramedic personnel with appropriate knowledge and education may be approved to teach the required curriculum when necessary/appropriate.
    c. Utilization of all training equipment necessary to ensure a sound paramedic IFT optional skills training program (manikins, infusion devices, ATV, non-invasive HFNC device, etc.).
5. The CV/resume of the proposed physician, RN, or paramedic training instructor.
    a. If the provider is proposing to utilize a paramedic as the training instructor, a separate letter indicating the necessity/reason for utilizing a paramedic instructor must also be included.
6. The provider's optional skills utilization policies and procedures, which shall at a minimum address the following:
    a. Paramedic personnel shall obtain a copy of the transferring physician's orders and attach them to the electronic patient care report.
    b. Patients being administered magnesium sulfate, nitroglycerin, heparin, &/or amiodarone infusions shall have vital signs monitored and documented every 15 minutes and any time there is a change in patient condition.
    c. Patients being administered blood transfusions shall have vital signs monitored and documented every 15 minutes, and any time there is a change in patient condition or change in transfusion rate.
    d. Patients on an ATV or non-invasive HFNC shall have vital signs monitored and documented every 15 minutes and any time there is any change in patient condition or adjustment of the ATV or non-invasive HFNC settings. Continuous pulse oximetry, waveform capnography, and cardiac monitoring shall be maintained throughout transport, and values/rhythms shall be documented every 15 minutes and any time there is a change in patient condition.
7. A description of the provider's paramedic IFT optional skills utilization QI process.
    a. Provider agencies shall audit 100% of paramedic IFT optional skills utilization calls to assess compliance with physician orders and S-SV EMS policies.
8. A list of equipment brand name, model number and other pertinent information for the mechanical infusion pumps, non-invasive HFNC devices, and/or ATV devices that will be utilized.

D. Written program approval/disapproval shall be made by S-SV EMS to the applicant within thirty (30) calendar days of receipt of all required application documentation.

E. Paramedic IFT optional skills provider agencies shall notify S-SV EMS by the end of the next business day of any unusual occurrence or known/suspected patient harm associated with the use of a paramedic IFT optional skill.

F. Paramedic IFT optional skills provider agencies shall maintain a roster of their paramedic personnel authorized to utilize paramedic IFT optional skills and provide this information to S-SV EMS upon request.

	Paramedic IFT Optional Skills Provider Application	441-A

PREHOSPITAL PROVIDER INFORMATION	
Name of prehospital provider agency:	
Name of person completing application:	
Telephone #:	Email:

APPLICATION CHECKLIST		
Description	**Enclosed**	**Approved**
1. Letter of intent to provide paramedic IFT optional skills, including a list of the optional skills that will be utilized.		
2. Proposed paramedic IFT optional skills implementation date, and anticipated paramedic IFT optional skills utilization frequency/volume.		
3. Number of personnel to be trained to utilize paramedic IFT optional skills.		
4. Paramedic IFT optional skills training program.		
5. CV/resume of the proposed physician, RN, or paramedic IFT optional skills training program instructor.		
6. Paramedic IFT optional skills policies and procedures.		
7. A description of the paramedic IFT optional skills utilization QI process.		
8. Equipment brand name, model number, and pertinent information for the mechanical infusion pumps, non-invasive HFNC devices, and/or ATV devices that will be utilized.		

S-SV EMS USE ONLY	
Date application received:	Program approval date:
Reviewed/approved by:	

Sierra – Sacramento Valley EMS Agency Program Policy		
STEMI Receiving Center Designation Criteria, Requirements & Responsibilities		
	Effective: 10/01/2026 Next Review: 07/2029	**506**
	Approval: Troy M. Falck, MD – Medical Director	SIGNATURE ON FILE
	Approval: John Poland – Executive Director	SIGNATURE ON FILE

PURPOSE:

To establish STEMI receiving center (SRC) designation criteria, requirements and responsibilities.

AUTHORITY:

A. HSC, Division 2.5, § 1797.67, § 1797.88, § 1798.102, § 1798.150, § 1798.170, § 1798.172.

B. CCR, Title 13, § 1105 (c).

C. CCR, Title 22, Div. 9, Ch. 6.2.

DEFINITIONS:

A. **Percutaneous Coronary Intervention (PCI)** – A procedure used to open or widen a narrowed or blocked coronary artery to restore blood flow supplying the heart, usually done on an emergency basis for a STEMI patient.

B. **Primary PCI –** Urgent balloon angioplasty (with or without stenting), without the previous administration of fibrinolytic therapy or platelet glycoprotein IIb/IIIa inhibitors, to open the infarct-related artery during an acute myocardial infarction with ST-segment elevation.

C. **ST-Elevation Myocardial Infarction (STEMI)** – A clinical syndrome defined by symptoms of myocardial infarction in association with ST-segment elevation on EKG.

D. **STEMI Receiving Center (SRC)** – A licensed general acute care facility that has emergency interventional cardiac catheterization capabilities, meets the minimum STEMI care requirements contained in CCR (Title 22, Div. 9, Ch. 6.2), and is designated as a SRC by S-SV EMS.

E. **STEMI Referring Hospital (SRH)** – A licensed general acute care facility that does not have emergency interventional cardiac catheterization capabilities, and transfers STEMI patients to SRCs for PCI services when necessary.

POLICY:

A. Criteria for assessment, identification, treatment and transport of prehospital suspected STEMI patients shall be based on S-SV EMS Chest Pain/Suspected Symptoms of Cardiac Origin Protocol (C-6).

B. The following shall be met for a hospital to be designated as a SRC by S-SV EMS:

1. Be licensed by the California Department of Public Health Services as a general acute care hospital.
2. Have a special permit for basic or comprehensive emergency medical service pursuant to the provisions of CCR Title 22, Div. 5.
3. Be accredited by a Centers for Medicare and Medicaid Services approved deeming authority.
4. Meet all requirements contained in California Code of Regulations Title 22, Div. 9, Ch. 6.2, for STEMI Receiving Centers.
5. Have a cardiac catheterization laboratory (cath lab) license.
6. Have intra-aortic balloon pump capability.
7. Have a communication system for notification of a prehospital suspected STEMI patient, including 12-lead EKG receiving capabilities.
8. Ensure the cath lab team is immediately available.
9. Agree to accept all prehospital suspected STEMI patients according to applicable S-SV EMS policies/protocols.
10. Agree to accept all STEMI patients from adjacent SRHs and have transfer plans/ agreements in place to ensure rapid transport of these patients to the SRC.
11. Perform a minimum of 36 Primary PCI and 200 total PCI procedures annually.
12. Have the following STEMI Program oversight staff:
    a. One STEMI Program Medical Director who is a physician board certified/ eligible in interventional cardiology with active PCI privileges at the SRC, and one STEMI Program Medical Co-Director who is a physician board certified/ eligible in emergency medicine with active privileges to practice in the emergency department at the SRC. STEMI Program Medical Director/Co-Medical Director responsibilities include:
        i. Oversight of STEMI program patient care.
        ii. Participation in development of STEMI Program clinical practice guidelines/ protocols.
        iii. Coordination of STEMI program staff and services.
        iv. Authority/accountability for STEMI Program quality and performance improvement.
        v. Establish and monitor STEMI Program quality control.

vi. Regular participation in S-SV EMS Regional STEMI QI Committee activity.

b. One STEMI Program Manager, who is an RN, trained/certified in critical care nursing and affiliated with the cardiac catheterization laboratory at the SRC, and one STEMI Program Co-Manager who is an RN trained/certified in critical care nursing and affiliated with the emergency department at the SRC. STEMI Program Manager/Co-Manager responsibilities include:

i. Support the STEMI Program Medical Director/Co-Medical Director functions.

ii. Acts as the STEMI Program EMS liaison.

iii. Assures EMS-SRC STEMI data sharing.

iv. Manages EMS-SRC STEMI QI activities.

v. Authority/accountability for STEMI Program quality and performance improvement.

vi. Regular participation in S-SV EMS Regional STEMI QI Committee activity.

13. Have a quality improvement (QI) process in place to track and improve treatment (acutely and at discharge) with American College of Cardiology (ACC) and American Heart Association (AHA) guidelines-based Class 1 therapies. At a minimum, this process will evaluate performance in meeting the following AHA/ ACC STEMI Receiving Center Achievement Measures:

a. Fibrinolysis within 30 minutes of ED arrival, if administered.

b. SRC Arrival to PCI ≤90 minutes for patients arriving by non-EMS modes of transport.

c. EMS First Medical Contact (FMC) to PCI ≤90 minutes, or ≤120 minutes when transport time is prolonged (≥45 minutes).

14. Have a QI process in place to provide ongoing feedback to adjacent SRHs on patients transferred for STEMI services. At a minimum, this QI process shall evaluate and provide SRH feedback of the following:

a. SRH STEMI patient door-to-first ECG time (goal <10 minutes).

b. SRH STEMI patient door-to-transfer time (goal <30 minutes).

c. SRH STEMI patient door-to-fibrinolysis time, if applicable (goal <30 minutes).

d. Operational issues related to STEMI patient transfer delays.

e. Proportion of STEMI patients receiving fibrinolysis prior to transport when the system cannot achieve times consistent with ACC/AHA guidelines for primary PCI.

f. Proportion of STEMI-eligible patients receiving any reperfusion (PCI or fibrinolysis) therapy.

15. Conduct regularly scheduled multidisciplinary team meetings to evaluate outcomes and quality improvement data. Operational issues should be reviewed, problems identified, and solutions implemented.

16. Provide CE opportunities, minimum of four (4) hours per year, for EMS personnel in areas of 12-lead EKG acquisition and interpretation, as well as assessment and management of STEMI patients.

17. Provide public education about STEMI warning signs and the importance of early utilization of the 9-1-1 system.

18. Comply with all requirements contained in S-SV EMS SRC agreements.

19. Pay the S-SV EMS SRC designation fees

C. SRC diversion of STEMI patients shall only occur during times of an internal disaster or when the cath lab is otherwise unavailable.

1. Notification shall be made to the following entities at least 24 hours prior to any planned event, or as soon as possible for any unplanned event, resulting in the cath lab being unavailable:

   a. S-SV EMS.

   b. SRC emergency department – to include a status posting on EMResource indicating that the cath lab is unavailable.

   c. Appropriate adjacent SRC(s).

   d. Appropriate prehospital provider agencies.

2. All appropriate entities shall be notified as soon as possible when the cath lab is subsequently available.

3. An S-SV EMS ambulance patient diversion form describing such events shall be submitted by email to DutyOfficer@ssvems.com by the end of the next business day.

PROCEDURE:

A. The SRC applicant shall be designated after satisfactory review of written documentation and an initial site survey conducted by S-SV EMS representatives or designees and completion of a contract between the hospital and S-SV EMS.

B. Designated SRCs shall have verification reviews by S-SV EMS representatives or designees conducted every three (3) years.

C. Failure to comply with the criteria and performance standards outlined in this policy and/or SRC contracts may result in probation, suspension or rescission of SRC designation. Compliance will be solely determined by S-SV EMS.

Sierra – Sacramento Valley EMS Agency Program Policy		
Stroke Receiving Center Designation Criteria, Requirements & Responsibilities		
Effective: 10/01/2026	Next Review: 07/2029	**507**
Approval: Troy M. Falck, MD – Medical Director		SIGNATURE ON FILE
Approval: John Poland – Executive Director		SIGNATURE ON FILE

PURPOSE:

To describe the S-SV EMS stroke critical care system and define stroke receiving center designation criteria, requirements, and responsibilities.

AUTHORITY:

A. HSC, Division 2.5, § 1797.67, § 1797.88, § 1798.102, § 1798.150, § 1798.170, § 1798.172.

B. CCR, Title 13, § 1105 (c).

C. CCR, Title 22, Div. 9, Ch. 6.3.

DEFINITIONS:

A. **Acute Stroke Patient** – An EMS patient who meets assessment criteria for a suspected stroke in accordance with S-SV EMS Suspected Stroke Protocol (N-3).

B. **Comprehensive Stroke Center** – An acute care hospital with specific abilities to receive, diagnose and treat all stroke cases and provide the highest level of care for stroke patients.

C. **EMS Receiving Hospital** – An acute care hospital authorized by S-SV EMS to receive ambulance transported patients, which is not designated for stroke critical care services but is able to provide a minimum level of care for stroke patients in the emergency department.

D. **Primary Stroke Center** – An acute care hospital that treats acute stroke patients and identifies patients who may benefit from transfer to a higher level of care when clinically warranted.

E. **Stroke** – A condition of impaired blood flow to a patient's brain resulting in brain dysfunction, most commonly through vascular occlusion or hemorrhage.

F. **Stroke Critical Care System** – A subspecialty care component of the EMS system developed by a local EMS agency (LEMSA). This critical care system links prehospital and hospital care to deliver optimal treatment to the population of stroke patients.

G. **Stroke Receiving Center** – An acute care hospital which meets all requirements contained in CCR (Title 22, Div. 9, Ch. 6.3) for the applicable level of stroke receiving center designation, obtains/maintains Joint Commission Accreditation as a 'Primary

Stroke Center', 'Thrombectomy Capable Stroke Center', or 'Comprehensive Stroke Center' (unless waived by S-SV EMS for valid reasons), and enters into a written agreement with S-SV EMS designating them as a stroke receiving center.

H. **Thrombectomy-Capable Stroke Center** – A primary stroke center with the ability to perform mechanical thrombectomy for the ischemic stroke patient when clinically warranted.

POLICY:

A. Criteria for assessment, identification, treatment, and transport of EMS suspected acute stroke patients shall be based on S-SV EMS Suspected Stroke Protocol (N-3).

B. No health care facility located in the S-SV EMS jurisdictional region shall advertise in any manner or otherwise hold itself out to be affiliated with a stroke critical care system or a stroke center unless they have been designated as such by S-SV EMS in accordance with this policy and California Code of Regulations, Title 22, Division 9, Chapter 6.3.

C. The following shall be met for a hospital to be designated as a stroke receiving center by S-SV EMS:

1. Be licensed by the California Department of Public Health Services as a general acute care hospital.
2. Have a special permit for basic or comprehensive emergency medical service pursuant to the provisions of CCR Title 22, Div. 5.
3. Be accredited by a Centers for Medicare and Medicaid Services approved deeming authority.
4. Meet all requirements contained in CCR (Title 22, Div. 9, Chapter 6.3) for the applicable level of stroke receiving center designation.
5. Be available for treatment of acute stroke patients twenty-four (24) hours per day, seven (7) days per week, three hundred and sixty-five (365) days per year.
6. Have a communication system for notification of an EMS suspected stroke patient.
7. Have established protocols for triage and diagnosis following notification of an EMS suspected acute stroke patient.
8. Agree to accept all EMS suspected acute stroke patients according to applicable S-SV EMS policies/protocols.
9. Agree to accept the transfer of all acute stroke patients whose clinical condition requires a higher level of care than can be provided at the sending facility, unless the stroke receiving center is on diversion or internal disaster.
10. Actively participate in the S-SV EMS regional stroke critical care system quality improvement (QI) process which shall include, at a minimum:

a. Evaluation of program structure, process, and outcome.

b. Review of stroke-related deaths, major complications, and transfers.

c. A multidisciplinary Stroke Quality Improvement Committee, including both prehospital and hospital members.

d. Participation in the QI process by all designated stroke centers and prehospital providers involved in the stroke critical care system.

e. Evaluation of regional integration of stroke patient movement.

f. Participation in the stroke data management system.

g. Compliance with the California EVID, § 1157.7 to ensure confidentiality, and a disclosure-protected review of selected stroke cases.

11. Provide CE opportunities, minimum of four (4) hours per year, for EMS personnel in areas of assessment and management of acute stroke patients.

12. Provide public education about stroke warning signs and the importance of early utilization of the 9-1-1 system.

13. Comply with all requirements contained in S-SV EMS stroke receiving center agreements.

14. Pay the S-SV EMS stroke receiving center designation fees.

D. Diversion of EMS suspected acute stroke patients shall only occur during times of an incapacitating internal disaster or when the CT scanner is otherwise unavailable.

1. Notification shall be made to the following entities at least 24 hours prior to any planned event resulting in the CT scanner being unavailable:

   a. Stroke receiving center emergency department – to include a status posting on EMResource indicating that the CT scanner is unavailable.

   b. Appropriate adjacent stroke receiving center(s).

   c. Appropriate prehospital provider agencies.

2. All entities listed in this section shall also be notified as soon as possible in the case of an unplanned event causing the CT scanner to be unavailable as well as when the CT scanner is subsequently available.

3. An S-SV EMS ambulance patient diversion form describing such events shall be submitted to S-SV EMS by the end of the next business day.

PROCEDURE:

A. The stroke receiving center applicant shall be designated after satisfactory review conducted by S-SV EMS representatives or designees and completion of a written agreement between the hospital and S-SV EMS.

B. Designated stroke receiving centers shall have verification reviews by S-SV EMS representatives or designees conducted every three (3) years.

C. Failure to comply with the criteria and performance standards outlined in this policy and/or individual stroke receiving center written agreements may result in probation, suspension or rescission of stroke receiving center designation. Compliance will be solely determined by S-SV EMS.

Sierra – Sacramento Valley EMS Agency Program Policy		
Trauma Center Designation Criteria, Requirements & Responsibilities		
	Effective: 10/01/2026	Next Review: 07/2029	**509**
	Approval: Troy M. Falck, MD – Medical Director		SIGNATURE ON FILE
	Approval: John Poland – Executive Director		SIGNATURE ON FILE

PURPOSE:

To establish Trauma Center designation criteria, requirements, and responsibilities.

AUTHORITY:

A. HSC § 1797.67, § 1797.88, § 1798.102, § 1798.150, § 1798.170, § 1798.172.

B. CCR, Title 22, Div. 9, Ch. 6.1.

DEFINITIONS:

A. **Level I Trauma Center –** A Level I Trauma Center has the greatest amount of resources and personnel for care of the injured patient. Typically, it is also a tertiary medical care facility that provides leadership in patient care, education, and research for trauma, including prevention programs.

B. **Level II Trauma Center –** A Level II Trauma Center offers similar resources as a Level I Trauma Center, differing only by the lack of research activities required for Level I Trauma Center designation.

C. **Level I and II Pediatric Trauma Center –** Level I and II Pediatric Trauma Centers focus specifically on pediatric trauma patients. Level I Pediatric Trauma Centers require some additional pediatric specialties and are research and teaching facilities.

D. **Level III Trauma Center –** A Level III Trauma Center is capable of assessment, resuscitation, and emergency surgery, if warranted. Injured patients are stabilized before transfer, if indicated, to a facility with a higher level of care according to pre-existing arrangements.

E. **Level IV Trauma Center –** A Level IV Trauma Center is capable of providing 24-hour physician coverage, resuscitation and stabilization to injured patients before they are transferred, if indicated.

POLICY:

A. Criteria for identification, treatment and transport of prehospital trauma patients shall be based on S-SV EMS General Trauma Management Protocol (T-1).

B. S-SV EMS will perform a trauma system needs assessment prior to designating any additional trauma centers in the S-SV EMS region.

C. The following criteria shall be met for a hospital to be designated as a Trauma Center by S-SV EMS:

1. Be licensed by the California Department of Public Health Services as a general acute care hospital.
2. Have a special permit for basic or comprehensive emergency medical service, pursuant to the provisions of CCR Title 22, Div. 5.
3. Be accredited by a Centers for Medicare and Medicaid Services approved deeming authority.
4. Meet all requirements contained in California Code of Regulations Title 22, Div. 9, Ch. 6.1, for the applicable level of Trauma Center designation.
5. Continuously meet the minimum standards published in the current edition of the American College of Surgeons Committee on Trauma (ACS-COT) Resources for Optimal Care of the Injured Patient document.
6. Continuously meet the ACS-COT and/or S-SV EMS Trauma Center Verification and designation requirements contained in this policy.
7. Agree to accept the transfer of major trauma patients whose clinical condition requires a higher level of care than can be provided at the sending facility unless the Trauma Center is on trauma diversion or internal disaster.
8. Have a written transfer agreement with a higher-level Trauma Center, if applicable, providing for the transfer of trauma patients whose clinical condition requires a higher level of care than can be provided at their facility.
9. Enter all required trauma patient data into the S-SV EMS regional trauma registry.
    - Each trauma center shall submit trauma patient data in an agreed upon format, and within the time requirements published in the most current edition of the ACS-COT Resources for the Optimal Care of the Injured Patient document.
    - Each trauma center shall ensure that the data entered into the S-SV EMS regional trauma registry is valid and without known errors.
    - Level I, II and III trauma centers located within the S-SV EMS region shall provide S-SV EMS with their American College of Surgeons Trauma Quality Improvement Program (ACS TQIP®) Benchmark Report on a bi-annual basis.
10. Submit all required trauma patient data to the California EMS Authority data management system, as required by CCR (Title 22, Div. 9, Ch. 6.1).
11. Actively participate in the S-SV EMS regional trauma system quality improvement (QI) process, which includes required attendance at S-SV EMS Trauma QI meetings by the Trauma Medical Director and Trauma Program Manager.

12. Have a QI process in place to, at a minimum:
    a. Provide ongoing feedback related to trauma care for:
        i. Transferring hospitals who transfer patients for trauma services.
        ii. EMS provider agencies for patients who meet trauma triage criteria.
    b. Promptly resolve and/or develop Process Improvement Plans (PIPs) to address QI issues identified through the following processes:
        i. Deficiencies/Opportunities for Improvement (OFI) identified by the ACS-COT during routine site reviews.
        ii. S-SV EMS QI process.
        iii. Internal QI process.
13. Provide CE opportunities, a minimum of four (4) hours per year, for EMS personnel in areas of trauma care.
14. Maintain active injury prevention programs targeted at reducing preventable injuries in the community.
15. Pay the applicable S-SV EMS Trauma Center designation fees.

D. Trauma Center diversion of patients meeting trauma triage criteria shall only occur during times of an internal disaster, or when emergent trauma services are otherwise unavailable.
    1. The following entities shall be notified as soon as possible of any event resulting in trauma services being unavailable, and when trauma services are subsequently available:
        a. S-SV EMS.
        b. Trauma center emergency department – to include a status posting on EMResource indicating trauma services are unavailable.
        c. Appropriate adjacent trauma centers.
        d. Appropriate prehospital provider agencies.
    2. An S-SV EMS ambulance patient diversion form describing such events shall be submitted to S-SV EMS by the end of the next business day.

PROCEDURE:

A. Any hospital seeking initial Trauma Center designation or currently designated S-SV EMS Trauma Centers seeking to change their designation level shall submit a letter of intent to the S-SV EMS Regional Executive Director. The letter of intent shall be on hospital letterhead and include a minimum of the following:

1. The requested level of Trauma Center designation and anticipated start date for the provision of trauma services.
2. Identification of the Trauma Program Medical Director, Trauma Program Manager Trauma PI RN, and Trauma Program Registrar.
3. Confirmation of commitment and support by hospital administration and physician staff for the applicable level of Trauma Center designation, including signatures of the hospital Chief of Staff and Chief Executive Officer.

B. Within 90 calendar days of receiving a letter of intent that complies with the criteria listed in this section of the policy, S-SV EMS will perform a trauma system needs assessment. The S-SV EMS Regional Executive Director will consequently make a designation recommendation to the S-SV EMS JPA Governing Board of Directors based on the results of the trauma system needs assessment.

C. Upon direction from the S-SV EMS JPA Governing Board of Directors to proceed with the Trauma Center designation process, the following will occur:

1. S-SV EMS will establish a Trauma Center contract with the hospital.
2. Hospitals seeking initial S-SV EMS Trauma Center designation shall complete a Trauma Center consultative review:
    a. An ACS-COT Consultative Review is required for any hospital requesting Level I, II or III Trauma Center designation.
    b. An S-SV EMS Consultative Review is required for any hospital requesting Level IV Trauma Center designation.
3. The S-SV EMS Regional Executive Director, in consultation with the S-SV EMS Medical Director, will make a recommendation to the S-SV EMS JPA Governing Board of Directors to grant or deny initial S-SV EMS Trauma Center designation based on the results of the consultative review, or based on the trauma needs assessment for Trauma Centers seeking to change their designation level.
4. Hospitals seeking initial S-SV EMS Trauma Center designation shall obtain ACS-COT or Level IV S-SV EMS Verification within three (3) years of completion of the consultative review to maintain S-SV EMS Trauma Center designation.

D. Failure to maintain ACS-COT or Level IV S-SV EMS Verification or comply with any of the criteria/standards contained in this policy, applicable statutes/regulations and/or S-SV EMS Trauma Center contracts may result in probation, suspension, denial, or revocation of S-SV EMS Trauma Center designation.

E. The S-SV EMS JPA Governing Board of Directors shall have final authority in any Trauma Center designation matters.

Sierra – Sacramento Valley EMS Agency Program Policy			
EMS Documentation			
	Effective: 10/01/2026	Next Review: 07/2029	**605**
	Approval: Troy M. Falck, MD – Medical Director		SIGNATURE ON FILE
	Approval: John Poland – Executive Director		SIGNATURE ON FILE

PURPOSE:

To specify EMS patient care report (PCR) documentation and data requirements.

AUTHORITY:

A. HSC, Division 2.5, § 1797.202, § 1797.204, § 1797.220, § 1797.227, § 1798.

B. CCR, Title 22, Div. 9, Ch. 3.1, Ch. 3.2, Ch. 3.3.

POLICY:

A. BLS non-transport providers shall complete a PCR for any EMS incident that results in a patient refusal of EMS care without ALS/LALS involvement.

B. BLS non-transport providers shall complete an electronic PCR (ePCR) compliant with current California Emergency Medical Services Information System (CEMSIS) and the National Emergency Medical Services Information System (NEMSIS) data standards or S-SV EMS BLS Skills Utilization PCR (605-A) to document the utilization of any of the following prior to ALS/LALS arrival:

1. Defibrillation (AED shock delivered).
2. BLS optional skills included in S-SV EMS Policy No. 477.

C. ALS/LALS non-transport providers and all transport providers shall utilize an ePCR software system, compliant with current CEMSIS/NEMSIS standards, for EMS documentation as follows:

1. ALS/LALS non-transport personnel shall complete an ePCR for any EMS incident that results in their arrival at scene, unless patient contact was limited to BLS assessment and/or oxygen administration only, and patient care was assumed by a transport provider.
2. Transport personnel shall complete an ePCR for any EMS incident that results in their arrival on scene. If the non-transport and transport personnel are from the same agency, a single ePCR by the appropriate unit is adequate.
3. For multiple patient incidents, an ePCR shall be completed for each individual patient (including patients who are determined to be deceased on scene).

D. A PCR is a legal medical record. EMS personnel shall provide clear, legible, concise, complete, and accurate patient care documentation. Any form of misrepresentation is a serious infraction, which may result in disciplinary action.

E. The use of artificial intelligence (AI) tools integrated within an approved ePCR system is permitted. When using AI to generate fields within the ePCR system, EMS personnel shall review, verify, and make necessary edits to confirm that the documentation accurately reflects the patient encounter. The integrated AI feature is a documentation support tool and does not replace the EMS personnel's judgment, assessment, or responsibility for the completeness and accuracy of the final ePCR.

F. EMS providers who fail to comply with EMS documentation laws, regulations, and/or policies may be suspended from providing service until they comply.

PROCEDURE:

A. All applicable/required PCR data fields shall be accurately completed, to include:

1. EMS interventions, including total volume of IV/IO fluid infused, specific medication dose(s) and route(s), and response(s) to the intervention(s) as applicable, shall be documented in the Treatment/Procedures section. ALS/LALS personnel shall also document all pertinent interventions utilized by bystanders or BLS personnel (including prior to their arrival on scene) in the Treatment/Procedures section. For all tourniquets applied prior to EMS arrival, including those placed by first responder, law enforcement, bystander, or the patient, EMS personnel shall assess and document the tourniquet's continued need and effectiveness.

2. For any required base/modified base hospital order or base/modified base physician order, the patient care record shall include the name of the physician or authorized person giving the order, the time the order was received, and the ordered medication dose or treatment.

3. All vital signs, including applicable cardiac rhythm interpretations, shall be documented in the Vitals section. Vital signs shall be obtained/documented at or near initial patient contact, a minimum of every 15 minutes throughout patient care (or more frequently if clinically indicated and at least twice during transport), following any intervention with anticipated physiologic impact, and at or near transfer of patient care. Vital signs include, but are not limited to:

   a. Mental Status (GCS, AVPU)

   b. Heart rate, blood pressure, respiratory rate/quality, SpO_2, temperature (when clinically indicated), and $EtCO_2$ (when clinically indicated).

   c. Pain scale (if applicable)

4. Chief complaint: a subjective statement as communicated to EMS personnel by the patient, witness, or other reporting party.

5. Primary Impression: a working diagnosis that serves as the basis for clinical decision-making.
6. Focused history relevant to presentation.
7. A thorough head-to-toe physical assessment shall be performed and documented for all patients where such as assessment is appropriate based on the patient's clinical condition, chief complaint, or mechanism of injury. At a minimum, a focused physical assessment must be performed and documented for the affected body part or organ system(s) related to the patient's chief complaint or mechanism of injury. Any unusual findings identified during a focused assessment shall be detailed in the assessment summary section of the PCR.
8. Presentation-specific Assessments
    a. Altered Mental Status
        i. Blood glucose value
        ii. Neurologic assessment (GCS or equivalent)
        iii. Baseline mentation (if known)
    b. Cardiac or Respiratory
        i. Chest pain characteristics (location, quality, severity, etc.)
        ii. Cardiac assessment (rate/rhythm, heart sounds, etc.)
        iii. Lung sounds
        iv. Work of breathing
        v. $EtCO_2$ monitoring
    c. Suspected Sepsis
        i. Temperature
        ii. $EtCO_2$ monitoring
        iii. Neurologic assessment (GCS or equivalent)
        iv. Perfusion assessment
    d. Suspected Stroke
        i. CPSS stroke assessment
        ii. Blood glucose value
        iii. Pupillary assessment
        iv. Motor/Sensory findings

v. Last Known Well Time (LKWT)

e. Traumatic Injury

i. Mechanism of injury

ii. Primary survey elements (airway, breathing, circulation)

iii. Secondary survey findings (focused assessment)

iv. Bleeding assessment including estimated blood loss

v. Hemorrhage control measures

vi. Neurologic assessment (GCS or equivalent)

9. The Narrative section shall be completed utilizing one of the following formats:

a. SOAP (Subjective, Objective, Assessment, and Plan).

b. CHART (Complaint, History, Assessment, Rx/pt. medications, and Treatment).

c. Chronological order.

10. Response, patient care, and/or transport delays shall be adequately documented in the appropriate section(s) of the PCR.

11. A written or electronic legal signature of the individual completing the PCR is required.

B. The following information, when available, shall be documented on an interim PCR (605-B or equivalent), and left with the receiving nurse or physician at the time of patient delivery:

1. Basic incident and patient demographic information.

2. Chief complaint, time of symptom onset, pertinent medical history, medications, and medication allergies.

3. Pertinent vital signs.

4. EMS treatment rendered (time, type, dose, route, response, etc.).

5. Relevant patient care related documents (DNR/POLST forms, 12 Lead EKGs, cardiac monitor rhythm strips, etc.).

6. Name, title, and ID of EMS personnel completing the documentation.

C. PCRs shall be completed within twenty-four (24) hours after completion of the patient encounter (NEMSIS data element eTimes.13 – 'Unit Back in Service Date/Time'), and shall be distributed as follows:

1. If a BLS optional skill was utilized, a copy of the completed PCR shall be provided/ available to S-SV EMS within seven (7) calendar days of the incident.

2. PCRs shall be provided/available to the applicable receiving, base, and/or modified base hospital upon completion, but no later than twenty-four (24) hours after completion of the patient encounter.

D. Any EMS provider required to complete/submit ePCR data pursuant to this policy, and who chooses not to utilize the S-SV EMS ImageTrend ePCR software system, shall submit EMS data to S-SV EMS in the following manner:

1. EMS data shall be continually compliant with current CEMSIS/NEMSIS standards and the current S-SV EMS data schematron.

2. EMS data for all incidents required by this policy shall be submitted to the EMS data system utilized by S-SV EMS within twenty-four (24) hours after completion of the patient encounter. Any ePCR record that fails to import shall be identified, corrected, and successfully submitted to the EMS data system utilized by S-SV EMS within seventy-two (72) hours after completion of the patient encounter.

E. PCRs for adult and emancipated minor patients shall be preserved for at least seven (7) years. PCRs for unemancipated minor patients shall be preserved for at least one (1) year after such minor has reached the age of 18 years old and, in any case, not less than seven (7) years.

Sierra – Sacramento Valley EMS Agency Program Policy			
Prehospital Provider Clinical Performance Standards			
	Effective: 10/01/2026	Next Review: 07/2029	**622**
	Approval: Troy M. Falck, MD – Medical Director		SIGNATURE ON FILE
	Approval: John Poland – Executive Director		SIGNATURE ON FILE

PURPOSE:

To establish clinical performance standards for prehospital ground provider agencies, to ensure consistent, equitable, safe, and high-quality EMS patient care and documentation.

AUTHORITY:

A. HSC, Div. 2.5, § 1797.

B. CCR, Title 22, Div. 9.

POLICY:

A. Each provider agency shall meet or exceed the applicable clinical performance standards identified in attachment 622-A.

B. Provider agencies shall maintain an internal Quality Improvement (QI) process that monitors required clinical performance standards, implements corrective actions when standards are not met, and demonstrates sustained compliance.

C. Measurement of clinical performance standards shall be based on objective data sources, including but not limited to the following (as applicable):

   a. Patient care report (PCR) documentation.

   b. Cardiac monitor downloads/documentation.

   c. Defibrillator logs.

   d. Destination/transfer of patient care documentation.

   e. Allied agency feedback.

   f. Base, modified base, and/or receiving hospital feedback.

D. Documentation must be sufficient to support clinical decision-making and compliance with S-SV EMS policies/protocols and applicable EMS regulations.

E. Failure to meet clinical performance standards minimum thresholds may result in further S-SV EMS review and/or corrective action in accordance with this policy.

F. If there is a conflict with this policy and the requirements contained in an emergency ground ambulance provider exclusive operating area (EOA) agreement, the EOA agreement requirements shall prevail.

PROCEDURE:

A. Provider agencies shall designate a QI lead (or equivalent role), who shall be responsible for the following:

1. Clinical performance standards data tracking and review:
2. Clinical performance standards data submission to S-SV EMS (when required).
3. Corrective action implementation and tracking (when required).

B. Provider agencies shall measure all clinical performance standards identified in attachment 622-A on a minimum of a calendar quarter basis (‘measurement period’).

C. When requested/required, provider agencies shall submit clinical performance standards data to S-SV EMS, which shall include the following minimum information:

1. Measurement period and denominator definition (eligible encounters).
2. Numerator definition (compliant encounters).
3. Threshold comparison (met/not met).
4. Narrative summary of trends, contributing factors, and actions taken.

Supporting source documentation shall be available to S-SV EMS upon request (e.g., de-identified case review summaries, monitor strips, training rosters, policy changes).

D. Exceptions Clause Documentation:

1. Where attachment 622-A includes an Exception Clause, exceptions must be clearly documented in the PCR with sufficient detail to justify exclusion or variance.
2. Exceptions do not eliminate the requirement to provide patient care consistent with S-SV EMS policies/protocols and clinical judgment; they address measurement fairness when patient/scene factors prevent achieving the metric.

E. Non-Compliance Corrective Actions:

1. Level 1 Finding: defined as any occurrence where one (1) or more clinical performance standards falls below the minimum performance threshold during a single measurement period. In such instances, the provider shall:
    a. Identify driver(s), including but not limited to training gaps, documentation workflow issues, equipment issues, or protocol knowledge deficiencies.

b. Implement corrective action, including but not limited to targeted education, checklist or process changes, QA feedback loops, or equipment remediation.

c. Re-measure performance during the next measurement period and document the provider's improvement plan.

2. Level 2 Finding: defined as any occurrence where one (1) or more of the same clinical performance standards falls below the minimum performance threshold for two (2) consecutive measurement periods. In such instances, the provider shall:

   a. Notify S-SV EMS no later than the 15th calendar day of the month following the end of the applicable measurement period.

   b. S-SV EMS may require the provider to implement additional corrective actions, including but not limited to focused audits, directed training, and/or submission of a written corrective action plan to S-SV EMS.

3. Level 3 Finding: defined as any occurrence where one (1) or more of the same clinical performance standards falls below the minimum performance threshold for three (3) consecutive measurement periods, or there is a significant deviation from one (1) or more clinical performance standard with a finding by the S-SV EMS Medical Director that indicates a threat to patient safety. In such instances, the provider shall:

   a. Notify S-SV EMS no later than the 15th calendar day of the month following the end of the applicable measurement period.

   b. S-SV EMS may require/implement additional corrective actions, including but not limited to a formal written Performance Improvement Plan (PIP) with timelines, increased reporting frequency, onsite evaluation, or other appropriate administrative remedies.

4. Additional non-compliance corrective actions (penalties, liquidated damages, other administrative remedies, etc.) may also apply, as indicated in applicable provider agency contracts/agreements.

Sierra – Sacramento Valley EMS Agency Program Policy			
Medical Control At The Scene Of An Emergency			
	Effective: 10/01/2026	Next Review: 04/2029	**835**
	Approval: Troy M. Falck, MD – Medical Director		SIGNATURE ON FILE
	Approval: John Poland – Executive Director		SIGNATURE ON FILE

PURPOSE:

To define patient care and incident management responsibilities at the scene of a medical emergency.

AUTHORITY:

A. HSC, Div. 2.5, § 1797.220, 1798.6.

B. CCR, Title 22, Div. 9.

POLICY:

A. Authority for patient health care management in an emergency shall be vested in that licensed or certified health care professional, which may include any paramedic, or other prehospital emergency personnel, at the scene of the emergency, who is most medically qualified specific to the provision of rendering emergency medical care. If no licensed or certified health care professional is available, the authority shall be vested in the most appropriate medically qualified representative of public safety agencies who may have responded to the scene of the emergency.

B. Notwithstanding the above, authority for the overall management of the scene of an emergency shall be vested in the appropriate public safety agency having primary investigative authority. The scene of an emergency shall be managed in a manner designed to minimize the risk of death or health impairment to the patient and to other persons who may be exposed to the risks as a result of the emergency condition, and priority shall be placed upon the interests of those persons exposed to the more serious and immediate risks to life and health. Public safety officials shall consult EMS personnel or other authoritative health care professionals at the scene in the determination of relevant risks. Some limited examples are as follows:

   1. California Highway Patrol – All freeways; all roadways in unincorporated areas to include right-of-way.
   2. Sheriff's Office – Off-highway unincorporated areas (parks, private property, etc.).
   3. Local Fire/Police – Specific areas of authority within their jurisdiction, except freeways.
   4. Airport Fire/Police – Airports.

5. U.S. Military – National Defense Area; a military reservation or an area with "military reservation status" that is temporarily under military control, e.g., military aircraft crash site.

PROCEDURE:

A. Medical management at the scene of a medical emergency includes:

1. Medical evaluation and care.
2. Medical aspects of extrication and patient movement.
3. Patient destination decisions, in consultation with base/modified base hospital when necessary.
4. Method and mode of transport.

B. The first on duty ALS licensed/accredited or certified responder on the scene shall assume responsibility for the patient's care unless they are cancelled by BLS personnel prior to patient contact, and there is no indication that ALS assessment/ treatment is necessary.

Sierra – Sacramento Valley EMS Agency Program Policy			
Hazardous Materials Incidents			
	Effective: 10/01/2026	Next Review: 04/2029	**836**
	Approval: Troy M. Falck, MD – Medical Director		SIGNATURE ON FILE
	Approval: John Poland – Executive Director		SIGNATURE ON FILE

PURPOSE:

To establish guidelines for the response of EMS prehospital personnel to hazardous materials incidents.

AUTHORITY:

A. HSC, Div. 2.5, § 1797.150, 1797.151, 1797.204, 1797.214, 1798.6.

B. CCR, Title 22.

C. OSHA Regulations, CFR 1910.120.

D. Applicable County Hazardous Materials Response Plans.

DEFINITIONS:

A. **County Hazardous Materials Response Plan –** County specific plan defining hazardous materials incident types and establishing response protocols/ responsibilities of agencies within the county.

B. **Hazardous Materials (Haz Mat) –** Any material which is explosive, flammable, poisonous, corrosive, reactive, or radioactive, or any combination, and requires special care in handling because of the hazards it poses to public health, safety, and/or the environment.

C. **Hazardous Materials (Haz Mat) Response Team –** An emergency team that has received specialized training and equipment for the purpose of protecting the public and the environment in the event of an accidental or intentional release of hazardous materials into the environment.

D. **Decontamination –** The process of removing or neutralizing contaminates that have accumulated on a victim to the extent necessary to prevent/alleviate the occurrence of heath and/or environmental effects.

E. **First Responder Awareness Level –** First responders at the awareness level are individuals who are likely to witness or discover a hazardous substance release and who have been trained to initiate an emergency response sequence by notifying the proper authorities of the release.

F. **Exclusion Zone (Hot Zone) –** The contaminated area, Immediately Dangerous to Life and Health (IDLH).

G. **Contamination Reduction Zone (Warm Zone) –** The area where decontamination takes place.

H. **Support Zone (Cold Zone) –** The uncontaminated area where individuals should not be exposed to hazardous conditions.

TRAINING AND COMPETENCY:

The minimum training for EMS prehospital personnel is Haz Mat First Responder Awareness level. Annual refresher training is required to be provided by the employer to be of sufficient content and duration to maintain competencies or to demonstrate those competencies. Additional training may be required to function at an emergency incident.

POLICY:

A. Responsibility for Haz Mat containment, identification, decontamination, and victim evacuation rests with the Incident Commander (IC)/Unified Command (UC).

B. Responding ambulances should stage off-site until the IC/UC provides for safety, a clear assignment and approach to scene.

C. EMS personnel must avoid contamination and not transport patients until they have been completely decontaminated. (Exception: For radiation contaminated patients that meet immediate triage criteria, treatment and transport should not be delayed for decontamination processes).

D. EMS personnel shall not enter or provide treatment in the Contamination Reduction Zone (Warm Zone) or Exclusion Zone (Hot Zone) unless specifically trained, equipped and authorized to do so.

E. EMS personnel shall not use Haz Mat specific personal protective equipment (PPE), including self-contained breathing apparatus (SCBA), unless specifically trained, fit tested and authorized to do so.

F. EMS personnel shall contact the base/modified base or receiving hospital as soon as possible, so they may prepare to receive victims. The base/modified base hospital may also assist field personnel in determining a decontamination and treatment plan.

DISPATCH:

Ambulances dispatched to a possible hazardous materials incident shall be advised by dispatch of the following additional information when known/available:

A. On scene wind direction and recommended approach route (coordinated with IC/UC).

B. Location of incident command post and staging area location.

C. Communication frequencies.

D. Type of hazardous material(s) involved.

E. Estimated number of patients.

SCENE MANAGEMENT:

A. Once cleared to respond into the scene (Support Zone/Cold Zone) from staging, ambulance personnel shall follow directions provided by IC/UC or designee.

B. Recognition of a Haz Mat on-scene or during transport:

   If ambulance personnel become aware of hazardous materials while on scene or during transport, they shall:

   1. Consider themselves contaminated and part of the incident (Hot Zone).
   2. Evacuate to a safe location (if safe/appropriate to do so) to minimize exposure, and consider self-decontamination.
   3. Isolate the scene and deny entry (keep others away). Move uninvolved victims to a safe zone.
   4. Confirm Haz Mat using DOT Emergency Response Guidebook and notify appropriate jurisdictional authorities to respond to the scene for site control and decontamination.

PATIENT CARE:

A. EMS personnel shall not render medical care beyond the Support Zone (Cold Zone) unless specifically trained, equipped, and authorized to do so.

B. Medical treatment and transportation is secondary to the prevention of spreading the contaminate, and the management of the Haz Mat incident. The IC/UC or designee is responsible for determining the treatment priority for the patient(s). EMS transport personnel may be requested to receive non-ambulatory patients from the Contamination Reduction Zone (Warm Zone) after decontamination has been completed.

C. For radiation contaminated patients that meet immediate triage criteria, treatment and transport should not be delayed for decontamination processes.

D. Deceased victims shall be left undisturbed at the scene, or moved at the direction of the coroner, IC/UC, or designee.

E. The use of HEMS aircraft for the transport of potentially contaminated Haz Mat patient(s) is generally not appropriate. Patient transport by HEMS aircraft shall only occur by direction of the IC/UC or designee. HEMS aircraft may be utilized, at the discretion of the IC/UC or designee, to transport immediate radiation contaminated patients under the same criteria as ground based transportation assets.

F. If necessary, request CHEMPACK resources utilizing county specific activation procedures (refer to S-SV EMS Nerve Agent Treatment Protocol E-8).

G. Treat patients as directed by applicable S-SV EMS protocols, and/or direction from the base/modified base hospital.

Sierra – Sacramento Valley EMS Agency Program Policy			
Physician On Scene			
	Effective: 10/01/2026	Next Review: 07/2029	**839**
	Approval: Troy M. Falck, MD – Medical Director		SIGNATURE ON FILE
	Approval: John Poland – Executive Director		SIGNATURE ON FILE

PURPOSE:

To define patient care responsibilities when a physician is on the scene of a medical emergency.

AUTHORITY:

A. HSC, Division 2.5, § 1797.220, § 1798.2.

B. CCR, Title 22, Division 9.

POLICY:

A. EMS personnel encountering a physician on the scene of a medical emergency shall initiate and maintain responsibility for patient care, unless the physician assumes responsibility for patient care and accompanies the patient to the hospital (if required). EMS personnel may assist the physician if they operate within their applicable scope of practice.

B. If necessary, EMS personnel are responsible for confirming that the individual is in fact a California licensed physician. If needed, utilize the EMSA/CMA Physician on Scene Card included in this policy.

C. In the event of a conflict with a physician on scene, EMS personnel shall consult with the base/modified base hospital and document the events appropriately.

PROCEDURE:

A. Physician is a bystander:

1. If the physician wishes to do more than assist, they must:

   a. Assume responsibility for the patient.

   b. Provide the care s/he wishes.

   c. Accompany the patient to the hospital (if safety allows).

2. If there is a conflict between the physician's requested treatment and the EMS personnel's scope of practice, EMS personnel shall explain that they can only treat within their applicable scope of practice.

3. If necessary, contact the base/modified base hospital and request the physician to discuss any issues directly with base/modified base hospital personnel.

B. Physician is patient's physician:

1. The physician may provide treatment prior to transfer of patient care to EMS personnel.
2. If there is a conflict between the physician's requested treatment and the EMS personnel's scope of practice following transfer of patient care, EMS personnel shall explain that they can only treat within their applicable scope of practice.
3. If necessary, contact the base/modified base hospital and request the physician to discuss any issues directly with base/modified base hospital personnel.
4. Patient care may be transferred to EMS personnel. There is no requirement for the physician to accompany the patient to the hospital in these circumstances.

EMSA/CMA PHYSICIAN ON SCENE CARD:

FRONT

NOTE TO PHYSICIANS ON INVOLVEMENT WITH EMS PERSONNEL

EMS personnel operate under standard policies and procedures developed by the Local EMS Agency and approved by their Medical Director under Authority of Division 2.5 of the California Health and Safety Code. The drugs they carry and procedures they can do are restricted by law and local policy.

If you want to assist, this can only be done through one of the alternatives listed on the back of this card. These alternatives have been endorsed by CMA, State EMS Authority and CCLHO.

Assistance rendered in the endorsed fashion, without compensation, is covered by the protection of the "Good Samaritan Code" (see Business and Professional Code, Sections 2144, 2395-2298 and Health and Safety Code, Section 1799.104).

BACK

ENDORSED ALTERNATIVES FOR PHYSICIAN INVOLVEMENT

After identifying yourself by name as a physician licensed in the State of California, and, if requested, showing proof of identity, you may choose one of the following:

1. Offer your assistance with another pair of eyes, hands or suggestions, but let EMS personnel remain under base hospital control; or,
2. Request to talk to the base station physician and directly offer your medical advice and assistance; or,
3. Take total responsibility for the care given by EMS personnel and physically accompany the patient until the patient arrives at a hospital (if safety allows) and responsibility is assumed by the receiving physician. In addition, you must sign for all instructions given in accordance with local policy and procedures.

Sierra – Sacramento Valley EMS Agency Program Policy			
Medical Control For Transfers Between Acute Care Facilities			
	Effective: 10/01/2026	Next Review: 07/2029	**840**
	Approval: Troy M. Falck, MD – Medical Director		SIGNATURE ON FILE
	Approval: John Poland – Executive Director		SIGNATURE ON FILE

PURPOSE:

To assure medical control of patients during ambulance transfers between acute care facilities. This policy does not exempt any acute care hospital or physician from meeting their regulatory/statutory obligations for patient transfers. The medical/legal responsibility for the patient rests with the transferring physician.

AUTHORITY:

A. HSC, Division 2.5, § 1797.185, § 1797.194, § 1797.218, § 1797.220, § 1798.102, § 1798.170, § 1798.172.

B. CCR, Title 22, Division 9.

C. USC, Title 42, § 395dd (EMTALA Statute).

D. CFR 42, § 489.20 & § 489.24 (EMTALA Regulations).

POLICY:

A. Prior to accepting an acute care interfacility transfer patient, EMS personnel shall:

1. Obtain patient information to include diagnosis, history and any therapies received while in the hospital or within the previous four (4) hours, whichever is less.

2. Complete a physical assessment, including vital signs.

B. EMS personnel shall follow orders of the transferring physician; however they cannot provide care beyond the S-SV EMS approved scope of practice. Should medical consultation be required during transport, EMS personnel shall follow the S-SV EMS Base/Modified Base/Receiving Hospital Contact Policy (Reference No. 812).

C. If a patient is transferred outside of the S-SV EMS region or base/modified base hospital radio contact range, EMS personnel may provide care according to S-SV EMS standing order policies/protocols.

Sierra – Sacramento Valley EMS Agency Program Policy			
Paramedic Interfacility Transport (IFT) Optional Skills			
	Effective: 10/01/2026	Next Review: 07/2029	**841**
	Approval: Troy M. Falck, MD – Medical Director		SIGNATURE ON FILE
	Approval: John Poland – Executive Director		SIGNATURE ON FILE

PURPOSE:

To establish parameters for the utilization of the following paramedic interfacility transport (IFT) optional skills:

A. Monitoring of magnesium sulfate, nitroglycerin, heparin, and/or amiodarone infusions.

B. Monitoring of blood transfusions.

C. Utilization of automatic transports ventilators (ATVs).

D. Utilization of high-flow nasal cannula (HFNC) therapy.

AUTHORITY:

A. HSC, Div. 2.5, § 1797.220.

B. CCR, Title 22, Ch. 3.3.

POLICY:

A. Only appropriately trained paramedics who are on duty with an S-SV EMS approved paramedic IFT optional skills provider may utilize paramedic IFT optional skills.

B. Monitoring of magnesium sulfate, nitroglycerin, heparin, and/or amiodarone infusions:

1. Patients will have pre-existing infusions that have been running for at least 10 minutes prior to transport. Paramedics will not initiate infusions.

2. Patients should have maintained stable vital signs for the previous 30 minutes and will have no more than two (2) medication infusions running, except for potassium chloride concentrations authorized under the paramedic basic scope of practice.

C. Monitoring of blood transfusions:

1. Paramedic monitoring of blood transfusions is limited to circumstances when there are no RN staffed Critical Care Transport/Specialty Care Transport (CCT/SCT) units available or when air ambulance transport is not appropriate/available.

2. Patients will have pre-existing blood transfusions in peripheral or central IV lines prior to transport. Paramedics will not initiate blood transfusions.

D. Utilization of ATVs:

1. Patients will be on ventilator support prior to transport. Paramedics will not initiate ventilator support.
2. Provider agencies utilizing ATV equipment shall follow the manufacturer instructions for use, maintenance, cleaning, and regular testing. At a minimum, ATV equipment shall undergo annual preventative testing/maintenance by qualified manufacturer's representative personnel.
3. Paramedics must be adequately trained/retrained on the specific ATV equipment utilized by the provider agency. Such training shall occur no less than annually and shall be documented.

E. Utilization of HFNC therapy:

1. Patients will be on HFNC therapy prior to transport. Paramedics will not initiate HFNC therapy.
2. Provider agencies utilizing HFNC equipment shall follow the manufacturer instructions for use, maintenance, cleaning, and regular testing. At a minimum, HFNC equipment shall undergo annual preventative testing/maintenance by qualified manufacturer's representative personnel.
3. Paramedics must be adequately trained/retrained on the specific HFNC equipment utilized by the provider agency. Such training shall occur no less than annually and shall be documented.

PROCEDURE:

A. Monitoring of magnesium sulfate, nitroglycerin, heparin, and/or amiodarone infusions:

1. All patients shall be maintained on a cardiac monitor, and a non-invasive blood pressure monitor throughout transport.
2. The paramedic shall receive written orders from the transferring physician prior to leaving the transferring hospital. These orders shall include a telephone number where the transferring and/or base/modified base hospital physician can be reached during transport, in addition to the type of solution, dosage and rate of infusion. These written orders shall be attached to the completed PCR.
3. Patients will be hemodynamically stable at time of transport.
4. If medication administration is interrupted, the paramedic may restart the infusion as delineated in the transfer orders.
5. All infusions, except for potassium chloride concentrations authorized under the paramedic basic scope of practice, will be monitored by a mechanical pump familiar to the paramedic and shall be verified with the sending RN following changeover to the mechanical EMS transport pump. In cases of pump malfunction that cannot be corrected, the infusion shall be discontinued and the transferring

physician and/or base/modified base hospital notified as soon as possible. S-SV EMS shall be notified of any mechanical pump malfunction no later than the end of the next business day.

6. The paramedic shall document in the PCR the total volume infused throughout the duration of the transport.
7. Magnesium sulfate infusion parameters:
    a. Regulation of the infusion rate will be within parameters defined by the transferring physician.
    b. If the patient develops signs/symptoms of magnesium toxicity, the medication drip shall be discontinued, and the transferring physician and/or base/modified base hospital will be notified as soon as possible. Signs/symptoms of magnesium toxicity include:
        i. Thirst.
        ii. Diaphoresis.
        iii. DTR's (Deep Tendon Reflexes) – depressed or absent.
        iv. Hypotension.
        v. Flaccid paralysis.
        vi. Respiratory depression.
        vii. Circulatory depression or collapse.
        viii. CNS depression.
        ix. Urine output <30 ml/hr.
        x. Chest pain or pulmonary edema.
    c. Vital signs, including DTR's, shall be monitored and documented every 15 minutes and any time there is a change in patient condition or medication adjustment.
8. Nitroglycerin infusion parameters:
    a. Infusion fluid will be D5W.
    b. Medication concentration will be 50 mg/250 mL.
    c. Regulation of the infusion rate will be within parameters defined by the transferring physician, but in no case will changes be greater than 10 mcg/ minute increments every 5 - 10 minutes. In cases of severe hypotension, the medication drip will be discontinued, and the transferring physician and/or base/modified base hospital will be notified as soon as possible.

d. Vital signs shall be monitored and documented, at a minimum, every 15 minutes and any time there is a change in patient condition or medication adjustment.

9. Heparin infusion parameters:

   a. Infusion fluid will be D5W or NS.

   b. Medication concentration shall not exceed 100units/mL of IV fluid (25,000 units/ 250 mL).

   c. Infusion rates will remain constant during transport. No regulation of the rate will be performed by the paramedic except to turn off the infusion completely.

   d. Vital signs shall be monitored and documented, at a minimum, every 15 minutes and any time there is a change in patient condition.

10. Amiodarone infusion parameters:

    a. Medication concentration must be a minimum concentration of 150 mg/250 mL (0.6 mg/mL).

    b. Infusion rates may vary between 0.25 - 1 mg/min.

    c. Infusion rates will remain constant during transport. No adjustment of the rate will be performed by the paramedic except to turn off the infusion completely.

    d. Vital signs will be monitored and documented, at a minimum, every 15 minutes and any time there is a change in patient condition.

    e. Y-Injection incompatibility; the following will precipitate with amiodarone hydrochloride:

       i. Heparin.

       ii. Sodium bicarbonate.

    f. Amiodarone hydrochloride intravenous infusion monitoring is not approved for patients less than 14 years old without base/modified base physician contact.

    g. For infusions greater than one hour, amiodarone hydrochloride concentrations should not exceed 2 mg/mL unless a central venous catheter is used.

B. Monitoring of blood transfusions:

1. All patients will be maintained on a cardiac monitor, waveform capnography and a non-invasive blood pressure monitor throughout transport.

2. The paramedic shall receive written orders from the transferring physician prior to leaving the transferring hospital. These orders shall include a telephone number where the transferring and/or base/modified base hospital physician can be reached during the patient transport in addition to the transfusion rate. These written orders shall be attached to the completed PCR.

3. Patients will be hemodynamically stable at the time of transport.
4. Paramedic personnel must be knowledgeable in the operation of the specific blood delivery/warming equipment.
5. Regulation of the transfusion rate will be within the parameters defined by the transferring physician.
6. Verify the patient and blood with the sending RN by checking the patient ID band against the blood label(s) and blood order for name, blood type and unit identifying number.
7. Vital signs will be monitored and documented, at a minimum, every 15 minutes and any time there is a change in patient condition or change in transfusion rate.
8. Monitor the patient for any signs and symptoms of a transfusion reaction. Monitor temperature for adverse effects if transport time exceeds 15 minutes. The following are the most common types of transfusion reactions that may occur:
    a. Hemolytic reactions: Hemolytic reactions are the most life-threatening. Clinical manifestations may vary considerably: fever, headache, chest or back pain, pain at infusion site, hypotension, nausea, generalized bleeding or oozing from surgical site, shock. The most common cause is from ABO incompatibility due to a clerical error or transfusion to the wrong patient. Chances of survival are dose dependent therefore it is important to stop the transfusion immediately if a hemolytic reaction is suspected. Administer a fluid challenge.
    b. Febrile non-hemolytic reaction: Chills and fever (rise from baseline temperature of 1°C or 1.8°F). Document and report to hospital on arrival.
    c. Allergic reaction: Characterized by appearance of hives and itching.
    d. Anaphylaxis: May occur after administration of only a few ml's of a plasma containing component. Symptoms include coughing, bronchospasm, respiratory distress, vascular instability, nausea, abdominal cramps, vomiting, diarrhea, shock, and loss of consciousness.
    e. Volume overload: Characterized by dyspnea, headache, peripheral edema, coughing, frothy sputum, or other signs of congestive heart failure occurring during or soon after transfusion. Restrict fluid.
9. If a suspected transfusion reaction occurs:
    a. Stop the transfusion immediately.
    b. Contact the transferring and/or base/modified base hospital physician.
    c. Consult appropriate treatment protocol(s).
    d. Document any suspected transfusion reactions.
    e. Report to hospital staff immediately upon arrival.

10. The paramedic shall document in the PCR the total volume infused throughout the duration of the transport.

C. Utilization of ATVs:

1. Written transfer orders from the transferring physician shall be obtained prior to transport. These orders must provide for maintaining and adjusting ventilations via ATV settings during transport and shall include a telephone number where the transferring and/or base/modified base hospital physician can be reached during the patient transport. These written orders shall be attached to the completed PCR.
2. Ventilator support must be regulated by an ATV familiar to the paramedic.
3. If an ATV equipment failure occurs and cannot be corrected, the paramedic shall discontinue use of the ATV, initiate ventilation by bag-valve device, and notify the transferring physician and/or base/modified base hospital as soon as possible. S-SV EMS shall also be notified of any ATV failure by the end of the next business day.
4. Paramedics shall continually observe the patient and document patient response to any changes while the ATV is operational.
5. Initial ATV settings and any subsequent changes shall be documented in the PCR.
6. The paramedic is responsible for airway management and must frequently reassess tracheostomy/endotracheal tube placement, including after each patient movement.
7. Non-invasive BP monitoring equipment shall be utilized. Vital signs shall be monitored and documented every 15 minutes and any time there is any change in patient condition or adjustment of the ATV setting.
8. Continuous pulse oximetry, waveform capnography, and cardiac monitoring shall be maintained throughout transport, and values/rhythms shall be documented every 15 minutes and any time there is a change in patient condition.
9. The ATV equipment must be able to match the existing ventilator settings, and shall include the following minimum features (including circuit):
    a. Modes:
        i. Assist Control (AC).
        ii. Synchronized Intermittent Mandatory Ventilation (SIMV).
    b. Ventilation rate control.
    c. Tidal volume control.
    d. FiO_2 control.
    e. Positive End-Expiratory Pressure (PEEP) control.

f. Inspiratory (I) time control.

g. Peak airway pressure gauge.

h. Alarms:

i. Peak airway pressure.

ii. Disconnect.

D. Utilization of HFNC therapy:

1. Written transfer orders from the transferring physician shall be obtained prior to transport. These orders must provide for maintaining and titrating flow (LPM), FiO2 and SpO2 goals for HFNC therapy during transport and shall include a telephone number where the transferring and/or base/modified base hospital physician can be reached during the patient transport. These written orders shall be attached to the completed PCR.

2. HFNC therapy must be administered utilizing HFNC equipment familiar to the paramedic.

3. If a HFNC equipment failure occurs and the paramedic is unable to maintain HFNC therapy, the paramedic shall discontinue use of HFNC therapy, provide appropriate oxygenation/ventilation support, and notify the transferring physician and/or base/modified base hospital as soon as possible. S-SV EMS shall also be notified of any HFNC equipment failure by the end of the next business day.

4. Paramedics shall continually observe the patient and document patient response to treatment and any changes while the HFNC equipment is operational.

5. Initial HFNC settings and any subsequent changes shall be documented in the PCR.

6. The paramedic is responsible for airway management and must frequently reassess respiratory effort for effectiveness of HFNC therapy.

7. Non-invasive BP monitoring equipment shall be utilized. Vital signs shall be monitored and documented every 15 minutes and any time there is any change in patient condition or adjustment of the HFNC equipment settings.

8. Continuous pulse oximetry and cardiac monitoring shall be maintained throughout transport, and values/rhythms shall be documented, at a minimum, every 15 minutes and any time there is a change in patient condition.

Sierra – Sacramento Valley EMS Agency Program Policy			
Transfer Of Patient Care			
	Effective: 10/01/2026	Next Review: 07/2029	**849**
	Approval: Troy M. Falck, MD – Medical Director		SIGNATURE ON FILE
	Approval: John Poland – Executive Director		SIGNATURE ON FILE

PURPOSE

To establish requirements for transfer of patient care by EMS personnel.

AUTHORITY

A. HSC, Division 2.5, § 1791.220.

B. CCR, Title 22, Division 9, Chapters 2.3, 3.1, 3.2, & 3.3.

POLICY

A. The first on duty EMS personnel at the scene of a medical emergency shall initiate EMS assessment/treatment unless cancelled prior to patient contact. This individual shall be the EMS primary care provider and shall maintain that role until patient care is transferred to other EMS or receiving hospital personnel.

B. Transfer of patient care to higher level EMS personnel shall occur as soon as possible after their arrival at scene, unless cancelled prior to patient contact or it has already been determined by other EMS personnel that a higher level of EMS care is not required.

C. Other EMS personnel shall provide pertinent incident/patient information and assistance to the EMS primary care provider.

D. Base/modified base hospital consultation shall be utilized for any significant disagreement regarding EMS treatment or transfer of patient care.

PROCEDURE

A. EMS personnel are authorized to transfer patient care to other EMS personnel when determined appropriate and mutually agreed to.

1. Transfer of patient care to lower-level EMS personnel shall only occur if the patient condition permits, and the care required is within the scope of practice of the lower-level EMS personnel.

2. Prior to transfer of patient care to an EMT, AEMT/paramedic personnel shall perform an adequate patient assessment and obtain a patient history to confirm that AEMT/paramedic care is not required. In the event of subsequent changes to patient condition requiring a higher level of EMS care, AEMT/paramedic personnel shall re-assume primary patient care as soon as possible.

3. Transfer of care from AEMT/paramedic personnel to an EMT is not allowed for any of the following types of patients:
    a. Any patient who requires ALS/LALS management according to any S-SV EMS policies/protocols.
    b. Patients refusing EMS care (S-SV EMS Policy 850).
    c. Patients meeting trauma triage criteria (S-SV EMS Protocol T-1/T-1 (LALS)).
    d. Pregnant patients in active labor or greater than 20 week's gestation with an obstetric complaint.
4. If EMS personnel refuse to accept transfer of patient care due to the patient's condition or complexity of treatment, the initial EMS primary care provider shall maintain patient care and accompany the patient to the hospital, if transported.
5. Equivalent or higher-level EMS personnel shall not refuse transfer of patient care in the following situations:
    a. Transfer of patient care from EMS personnel functioning in a specialized role (tactical, fireline, ski patrol, bike team, special event, etc.).
    b. During a declared Multi Casualty Incident (MCI).
    c. Transfer of patient care from ground EMS to EMS aircraft personnel (unless safety reasons prevent such transfer). Patient care shall not be transferred to EMS aircraft personnel until they are safely ready to accept care of the patient.
6. EMS personnel transferring patient care to other EMS personnel shall:
    a. Provide pertinent patient assessment and treatment information to EMS personnel accepting responsibility for the patient.
    b. AEMT/paramedic personnel who transfer patient care shall ensure the completion of a PCR as required by S-SV EMS Prehospital Documentation policy (Reference No. 605). The PCR shall include the time of patient care transfer and the name/provider agency of the EMS personnel accepting transfer.

Sierra – Sacramento Valley EMS Agency Program Policy			
EMS Care Of Minor Patients			
	Effective: 10/01/2026	Next Review: 04/2029	**851**
	Approval: Troy M. Falck, MD – Medical Director		SIGNATURE ON FILE
	Approval: John Poland – Executive Director		SIGNATURE ON FILE

PURPOSE:

To establish criteria and procedures for EMS assessment, treatment and/or transport (collectively referred to in this policy as "EMS care") of minor patients.

AUTHORITY:

A. HSC, Div. 2.5.

B. CCR, Title 22, Div. 9.

C. FAM, § 6922, 6924, 6925, 6926, 6927, 6928, & 6929.

D. WIC, § 305 & 625.

DEFINITIONS:

A. **Emancipated –** An individual under the age of 18 years old who is married, on active duty in the military, or emancipated by court declaration.

B. **Emergency –** A situation requiring immediate services for alleviation of severe pain or immediate diagnosis of unforeseen medical conditions, which, if not immediately diagnosed and treated, would lead to serious disability or death.

C. **Legal Guardian –** An individual granted legal authority to care for another individual.

D. **Minor –** An individual under the age of 18 years.

E. **Parent –** The lawful mother or father of a non-emancipated minor.

POLICY:

A. Parent/legal guardian consent for EMS care is not required for minor patients meeting any of the following criteria:

1. Has an emergency medical condition and a parent/legal guardian is not available.
2. Is an emancipated minor.
3. Is fifteen (15) years of age or older, living separate and apart from their parents and managing their own financial affairs.
4. Is twelve (12) years of age or older and in need of medical care for an infectious, contagious communicable disease, or for a sexually transmitted disease.

5. Is twelve (12) years of age or older and in need of medical care for drug or alcohol abuse.
6. Is in need of medical care for rape or sexual assault.
7. Is pregnant and requires medical care related to the pregnancy.

B. EMS personnel shall make every effort to inform a parent/legal guardian of a non-emancipated minor of the situation requiring EMS care, and where their child has been transported.

1. EMS personnel are not permitted to inform a parent/legal guardian without the minor's consent under the following circumstances:
    a. Is pregnant and requires medical care related to the pregnancy.
    b. Is twelve (12) years of age or older and in need of medical care for an infectious, contagious communicable disease, or for a sexually transmitted disease.
2. EMS personnel are not permitted to inform a parent or legal guardian of a minor who needs medical care for rape or sexual assault when they reasonably believe that the parent/guardian committed the rape or assault.

C. If EMS personnel believe a parent or legal guardian is making a decision which appears to be endangering the health and welfare of a minor patient, law enforcement involvement shall be utilized.

Sierra – Sacramento Valley EMS Agency Program Policy			
Tasered Patient Care & Transport			
	Effective: 10/01/2026	Next Review: 04/2029	**853**
	Approval: Troy M. Falck, MD – Medical Director		SIGNATURE ON FILE
	Approval: John Poland – Executive Director		SIGNATURE ON FILE

PURPOSE:

To establish guidelines for EMS personnel on the treatment and transportation of patients on whom a Taser has been used.

AUTHORITY:

A. HSC, § 1797.204, 1797.220, & 1798.

B. CCR, Title 22, Div. 9.

GENERAL CONSIDERATIONS:

A. A Taser is designed to transmit electrical impulses that temporarily disrupt the body's nervous system. The Electro-Muscular Disruption (EMD) technology causes an uncontrollable contraction of the muscle tissue, allowing the Taser to physically debilitate a target regardless of pain tolerance or mental focus.

B. The scene must be safe and secured by law enforcement before EMS personnel will evaluate or treat the patient.

C. Assess the patient for any potential cause of the abnormal or combative behavior such as head trauma, hypoxia, alcohol or drug related problems, hypoglycemia or other metabolic disorders, stress or psychiatric disorders.

D. Assess the patient for any potential injury resulting from Taser deployment.

POLICY:

A. Taser probes may be removed by EMS personnel if they interfere with the treatment or safe transportation of the patient. Only EMT, AEMT and paramedic personnel are approved to remove Taser probes in the prehospital setting.

B. If removed by EMS, Taser probes shall be offered to law enforcement prior to disposal.

C. Mode of transportation and destination will be determined by law enforcement, in consultation with EMS personnel and/or the base/modified base hospital if necessary.

PROCEDURE:

A. When safe to do so, patients should be immediately evaluated, with particular attention to signs and symptoms of behavioral emergencies.

B. Treat any injuries/medical conditions according to appropriate protocol(s).

C. The patient will normally be in law enforcement custody and will require transportation to an emergency department for medical clearance.

D. If EMS personnel determine that the patient is a danger to self or others, law enforcement may be requested to accompany the patient in the ambulance or follow the ambulance during transport.

E. The patient should be appropriately restrained if indicated.

F. If one or both Taser probes requires removal:

1. Verify the wires to the probes have been severed.
2. Use routine biohazard precautions. Place one hand on the patient in the area where the probe is embedded and stabilize the skin surrounding the puncture site between two fingers. Keep your hand away from the probe. With your other hand, in one fluid motion pull the probe straight out from the puncture site.
3. Inspect probes to ensure that all parts were removed, and all barbs are intact.
4. Follow law enforcement direction regarding the preservation or disposal of probes.
5. Apply direct pressure for bleeding and apply a sterile dressing to the wound site.
6. Do not remove probes located in the eyes, face, neck, genitals, or any other potentially vulnerable area.

DOCUMENTATION:

The following information shall be documented on the patient care report:

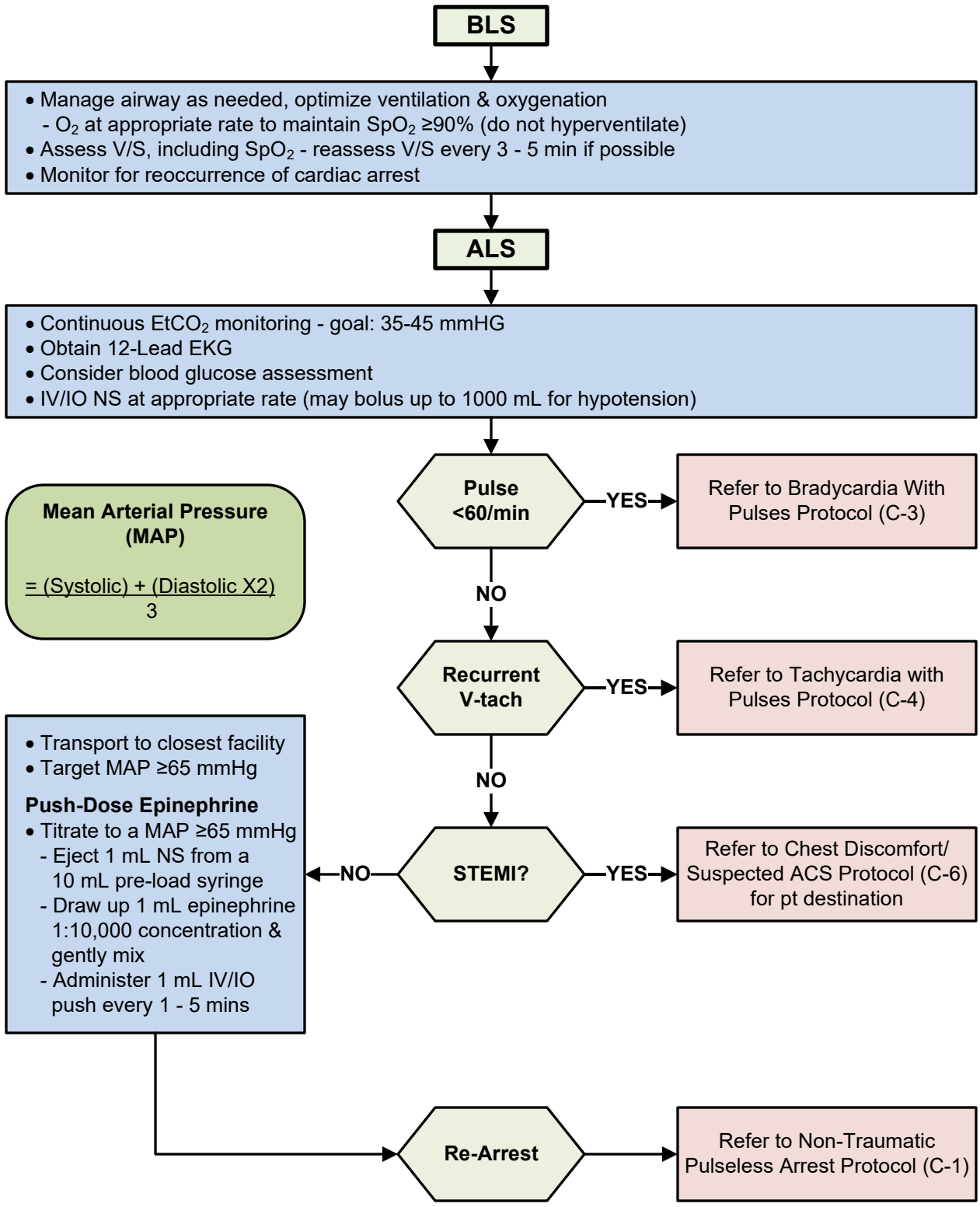
A. Patient's presenting behavior or signs/symptoms which resulted in Taser use.

B. Adequate patient assessment including, but not limited to, neurological assessment, oxygen saturation, blood glucose level, and other pertinent vital signs.

C. Anatomic location of the Taser probes (note: if Taser probes were removed by EMS, document time of removal and if probes were intact following removal).

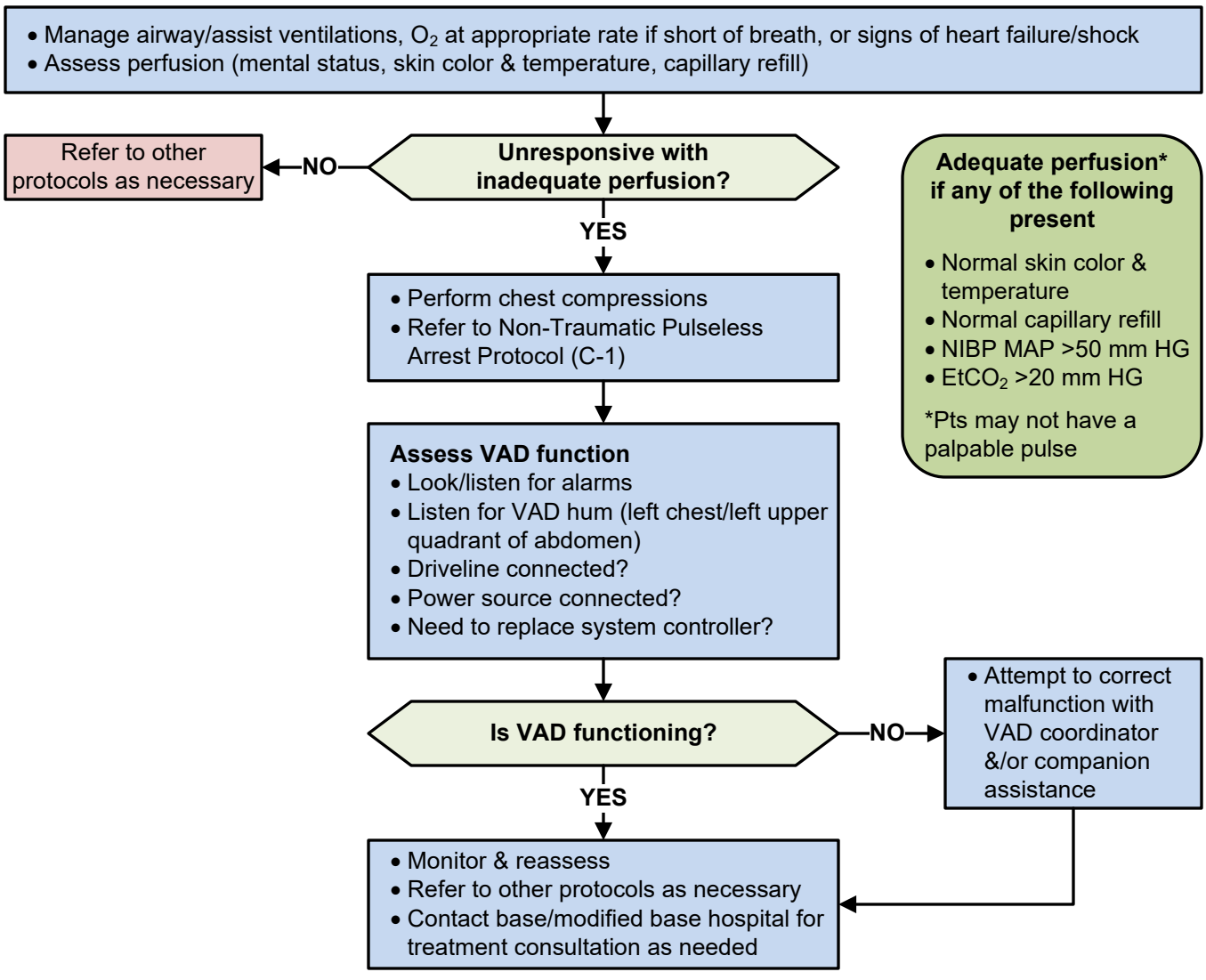
S-SV EMS Policy/Protocol Manual Update #79
ALS/BLS Protocols

Sierra – Sacramento Valley EMS Agency Treatment Protocol	C-2
Return Of Spontaneous Circulation (ROSC)	
Approval: Troy M. Falck, MD – Medical Director	Effective: 10/01/2026
Approval: John Poland – Executive Director	Next Review: 07/2029



Sierra – Sacramento Valley EMS Agency Treatment Protocol	C-5
Ventricular Assist Device (VAD)	
Approval: Troy M. Falck, MD – Medical Director	Effective: 10/01/2026
Approval: John Poland – Executive Director	Next Review: 07/2029

- VAD pts may also have an Implanted Cardioverter-Defibrillator (ICD) or a Pacemaker/ICD.
- VAD pts may not have a palpable pulse as these are continuous flow devices. Utilize a cardiac monitor to accurately establish the pt's heart rate/rhythm. Arrhythmias with signs of inadequate perfusion should be treated according to applicable S-SV EMS protocols. If defibrillation or cardioversion is indicated, follow the applicable treatment protocol (the pump is insulated so that electrical therapy should not be an issue).
- VAD pts may not have a blood pressure obtainable by standard EMS measurement methods. An accurate blood pressure is typically obtained via doppler, however, auscultation or NIBP readings may be possible.
- SpO_2 may not be measurable or accurate. $EtCO_2$ monitoring should be utilized.
- In any emergency involving a VAD patient, contact the VAD coordinator as soon as possible. VAD patients and companions are instructed to call 911 and page the coordinator, whose contact information is usually attached to or located inside the patient's VAD equipment bag.
- VAD pts should be transported to the nearest appropriate VAD center. If the pt's condition does not warrant transportation to the VAD center, the base/modified base hospital shall be consulted for pt destination. The VAD equipment bag, power source, battery & charger shall be brought with any transported VAD pt.



Sierra – Sacramento Valley EMS Agency Treatment Protocol	R-1
Airway Obstruction	
Approval: Troy M. Falck, MD – Medical Director	Effective: 10/01/2026
Approval: John Poland – Executive Director	Next Review: 07/2029

- **Signs of severe airway obstruction:**
  - Poor air exchange
  - Cyanosis
  - Increased breathing difficulty
  - Inability to speak/breathe
  - Silent cough

BLS

- Assess V/S, including SpO_2
- O_2 at appropriate rate if SpO_2 <94% or short of breath
- Suction as needed, be prepared to support ventilation with airway adjuncts

Signs of severe airway obstruction?

NO → **ALS**

YES

Foreign Body (FB)

- Repeated cycles of 5 back blows followed by 5 abdominal thrusts
- Begin CPR if pt becomes unresponsive
- Check mouth & remove any visible FB, do not perform blind finger sweeps

ALS

If continued airway obstruction on an unresponsive pt:
- Perform direct laryngoscopy and remove any visible FB with magill forceps

Infection

- Position of comfort
- Consider humidified O_2
- Assist ventilation with BVM as necessary
- Avoid airway visualization & use of an OPA

ALS

If inadequate ventilation:
- Consider **nebulized epinephrine** (1:1000, 5 mg/5 mL) **OR racemic epinephrine** (0.5 mL vial of 2.25% inhalation solution mixed with NS to = 5 mL of total volume) via HHN, mask, or BVM
- Consider advanced airway

Anaphylaxis

Go to Allergic Reaction/ Anaphylaxis Protocol (M-1)

ALS

- Cardiac monitor
- Establish vascular access at appropriate time (may bolus up to 1000 mL NS)

If continued inadequate ventilation, consider needle cricothyrotomy:
If soft tissue of neck begins to balloon after insertion, remove catheter

Sierra – Sacramento Valley EMS Agency Treatment Protocol	M-6
General Medical Treatment	
Approval: Troy M. Falck, MD – Medical Director	Effective: 10/01/2026
Approval: John Poland – Executive Director	Next Review: 04/2029

Important Notes

- The purpose of this protocol is to provide assessment & treatment modalities for pt complaints not addressed by other S-SV EMS protocols – including suspected sepsis, suspected abdominal aortic aneurysm (AAA), & nausea/vomiting.

BLS

- Assess V/S, including SpO_2 & temperature (if able)
- O_2 at appropriate rate if pt is hypoxemic (SpO_2 <94%), short of breath, or has signs of heart failure/shock
- Assess history & physical
- Check blood glucose – if indicated & able

Blood glucose ≤60 mg/dl, or hx & clinical presentation fits hypoglycemia

NO → **ALS**

YES

Oral glucose (BLS) – ONLY if pt is conscious & able to swallow
- Pre-packaged glucose solution/gel or 2-3 tbsp of sugar in water/juice

OR

Dextrose 10% (ALS)
- 10 – 25 g (100 – 250 mL) IV/IO

OR

Glucagon (ALS)
- 1 mg (1 unit) IM/IN

ALS

Consider the following additional assessment/treatment modalities, as appropriate, based on pt's condition & clinical presentation:
- Cardiac monitor/12-lead EKG
- $EtCO_2$ monitoring
- IV/IO NS (may bolus up to 1000 mL if indicated)

- Refer to other sections of this protocol as appropriate:
  - Suspected Sepsis – Page 2
  - Suspected AAA – Page 3
  - Nausea/Vomiting – Page 4

Suspected Sepsis

Important Notes

- Early recognition of sepsis is critical to expedite hospital care and antibiotic administration.
- Aggressive IV fluid therapy is the most important prehospital treatment for sepsis.
- Septic pts are especially susceptible to traumatic lung injury and ARDS. If BVM ventilation is necessary, avoid excessive tidal volumes.
- Attempt to identify the source of infection (skin, respiratory, etc.), previous treatment and related history.
- Consider the possibility of sepsis when a combination of two or more of the following Systemic Inflammatory Response Syndrome (SIRS) criteria are present:
  - Temperature <96.8°F or >100.4°
  - RR >20bpm
  - HR >90bpm
  - ETCO2 ≤25 mmHg

High-Risk Indicators for Sepsis:

- Hx of pneumonia, UTI, MRSA
- Cancer pts
- Nursing home residents
- Pts with indwelling catheters
- Immune-compromised pts

Shock Index (SI):

- SI is used to assess the severity of hypovolemic shock
- SI = HR/SBP
  - Normal SI range is 0.5 to 0.7
  - HR>SBP (SI>1) may indicate sepsis

ALS

- Assess temperature
- $EtCO_2$ monitoring
- IV/IO NS 500 mL boluses to a maximum of 2 L if SIRS criteria remain present
  - Reassess V/S between boluses
  - Discontinue boluses & provide supportive care if signs of pulmonary edema develop

If SBP <90 after 2 L NS:
Push-Dose Epinephrine

- Eject 1 mL NS from a 10 mL flush syringe
- Draw up 1 mL epinephrine 1:10,000 & gently mix
- Administer 1 mL IV/IO push every 1-5 mins for continued SBP <90

If pt is febrile:
Acetaminophen

- 1 g IV/IO infusion over 15 mins (single dose)

- Monitor & reassess
- Provide early notification to the receiving hospital for suspected sepsis pts

Suspected Dissecting or Ruptured Abdominal Aortic Aneurysm (AAA)

Important Notes

- **Pts at high risk for AAA include**:
  - Men age >65
  - History of smoking
  - History of hypertension
  - Family/pt history of AAA
- **Hallmark symptoms of AAA often include one (1) or more of the following:**
  - Sudden onset of abdominal, flank, back, or groin pain
  - Pain described as “ripping” or “tearing”
  - Pain is typically severe, constant, & progressive
  - Sudden onset of weakness or syncope/near-syncope
  - Nausea &/or vomiting
  - Sense of impending doom/restlessness
- **One (1) or more of the following V/S &/or assessment findings may be present:**
  - Hypotension (late or rapidly developing)
  - Narrowing pulse pressure
  - Tachycardia (caution: pts with history of hypertension may be on beta blockers)
  - Weak or thready peripheral pulses
  - Asymmetric femoral pulses
  - Pulsatile abdominal mass (often absent or difficult to assess)

ALS

- Cardiac monitor/12-lead EKG
- $EtCO_2$ monitoring
- Establish two (2) large-bore IVs/IOs when possible
- Do not aggressively treat hypotension – allow for permissive hypotension
  - Target SBP 80-90 mmHg if pt has palpable pulses & is conscious
  - Administer 250 mL NS boluses only if signs of critical hypoperfusion (including: mental status changes, delayed capillary refill, bilateral absent femoral pulses)
- Prioritize pain management – refer to ‘Pain Management’ protocol (M-8)

- Monitor & reassess
- Provide early notification to the receiving hospital for suspected AAA pts

Nausea/Vomiting

Important Notes

- Nausea/vomiting can be symptoms of a multitude of different causes. If possible, the specific underlying cause should be determined & treated. The use of an antiemetic may relieve symptoms while leaving the cause untreated, & possibly, more difficult to detect. EMS personnel should weigh the benefits of antiemetic use against the possible risk of making an accurate diagnosis more difficult, & the possible side effects of the antiemetic agent.
- Treatment of nausea/vomiting is indicated for pts where it may contribute to a worsening of their medical condition, or where the pt's airway may be endangered.
- EMS personnel may consider administering Zofran (Ondansetron) prophylactically, prior to or immediately after opioid administration, for a pt with a history of nausea/vomiting secondary to opioid administration. Zofran (Ondansetron) may also be administered prior to transport to a pt with a history of motion sickness.

ALS

Zofran (Ondansetron)
- 4 - 8 mg oral disintegrating tablet, **OR** 4 - 8 mg IM, **OR** 4 - 8 mg slow IV/IO (over 30 seconds)
- May repeat as needed (max total dose: 16 mg)

Zofran (Ondansetron) is contraindicated during the first 8 weeks of pregnancy

Sierra – Sacramento Valley EMS Agency Treatment Protocol	M-8
Pain Management	
Approval: Troy M. Falck, MD – Medical Director	Effective: 10/01/2026
Approval: John Poland – Executive Director	Next Review: 07/2029

- All pts with a report of pain shall be appropriately assessed & treatment decisions/interventions shall be adequately documented on the PCR.
- A variety of pharmacological and non-pharmacological interventions may be utilized to treat pain. Consider the pt's hemodynamic status, age, and previous medical history/medications when choosing analgesic interventions.
- Treatment goals should be directed at reducing pain to a tolerable level; pts may not experience complete pain relief.

Protocol Definitions:

- Acute Pain: Sudden, short-term pain usually caused by injury, illness, or a specific event.
- Non-Acute Pain: Ongoing or long-term pain that persists over time & is not immediately severe or emergency-related.

BLS

- Assess V/S including pain scale & SpO_2, every 15 mins or as indicated by pt's clinical condition
- Assess/document pain score using standard 1-10 pain scale before and after each pain management intervention and at a minimum of every 15 mins
- O_2 at appropriate rate if SpO_2 <94% or pt is short of breath
- Utilize non-pharmacological pain management techniques as appropriate, including:
  - Place in position of comfort and provide verbal reassurance to minimize anxiety
  - Apply ice packs &/or splints for pain secondary to trauma

If pain is not effectively managed with non-pharmaceutical pain management techniques:

- Review/consider Medication Contraindications & Administration Notes below & proceed to page 2

Medication Contraindications & Administration Notes

ⓘ Clinical judgement shall be utilized to determine appropriate doses within allowable protocol ranges
ⓘ All slow IVP medications contained in this protocol shall be administered over 60 seconds

Acetaminophen
ⓘ Do not administer to pts with any of the following:
- Severe hepatic impairment
- Active liver disease

ⓘ Discontinue infusion if SBP drops to <100

Ketamine
ⓘ Do not administer to pregnant pts

Ketorolac
ⓘ Do not administer to pts with any of the following:
- ≥65 yo
- Pregnancy
- NSAID allergy
- Active bleeding
- Multi-system trauma
- ALOC or suspected moderate/severe TBI
- Current use of anticoagulants or steroids
- Hx of asthma, GI bleeding, ulcers
- Hx of renal disease/insufficiency/transplant

Fentanyl/Midazolam
ⓘ Do not administer to pts with any of the following:
- SBP <100
- SpO2 <94% or RR <12
- ALOC or suspected moderate/severe TBI

ⓘ Consider reduced fentanyl doses for pts ≥65 yo
ⓘ There is an increased risk of deeper level of sedation & airway/respiratory compromise when administering midazolam to pts receiving fentanyl

ALS

- Continuous cardiac monitoring
- Continuous $EtCO_2$ monitoring required for pts receiving fentanyl, ketamine &/or midazolam
- IV/IO NS TKO if indicated by pt's clinical condition or necessary for medication administration
  - May bolus up to 1000 mL if indicated by pt's clinical condition
- Administer (admin.) analgesic intervention, as indicated below, when appropriate

Non-Acute Pain

Acetaminophen: 1 g IV/IO infusion over 15 mins
OR
Ketorolac: 15-30 mg IV/IO or IM

If pain not effectively managed:

- Contact base/modified base hospital for additional pain management consultation

Acute Pain

Moderate Pain

Acetaminophen: 1 g IV/IO infusion over 15 mins
OR
Ketorolac: 15-30 mg IV/IO or IM

If pain not effectively managed:

Fentanyl

- 25-50 mcg slow IV/IO or IM/IN every 5 mins (max cumulative dose: 200 mcg)

***Midazolam Precautions:**

- Wait 5 mins after IV/IO/IM/IN fentanyl or IV/IO ketamine admin. before midazolam admin.
- Wait 20 mins after IM ketamine admin. before midazolam admin.

Severe Pain

Fentanyl: 50-100 mcg slow IV/IO or IM/IN
OR
Ketamine:

- IV/IO (Preferred Route):
  - 15-30 mg admin. slowly
- IM:
  - Pts <50 kg: 25 mg
  - Pts ≥50 kg: 50 mg

Acetaminophen: 1 g IV/IO infusion over 15 mins

If pain not effectively managed:

- If fentanyl previously admin., may repeat fentanyl 50-100 mcg slow IV/IO or IM/IN every 5 mins (max cumulative dose: 200 mcg)
- If ketamine previously admin., may repeat ketamine (x1)
  - 15-30 mg slow IV/IO (after 10-15 mins)

  OR
  - 25 mg IM (after 20 mins)

AND/OR

***Midazolam:** 1 mg slow IV/IO

- May repeat (x1) 1 mg slow IV/IO

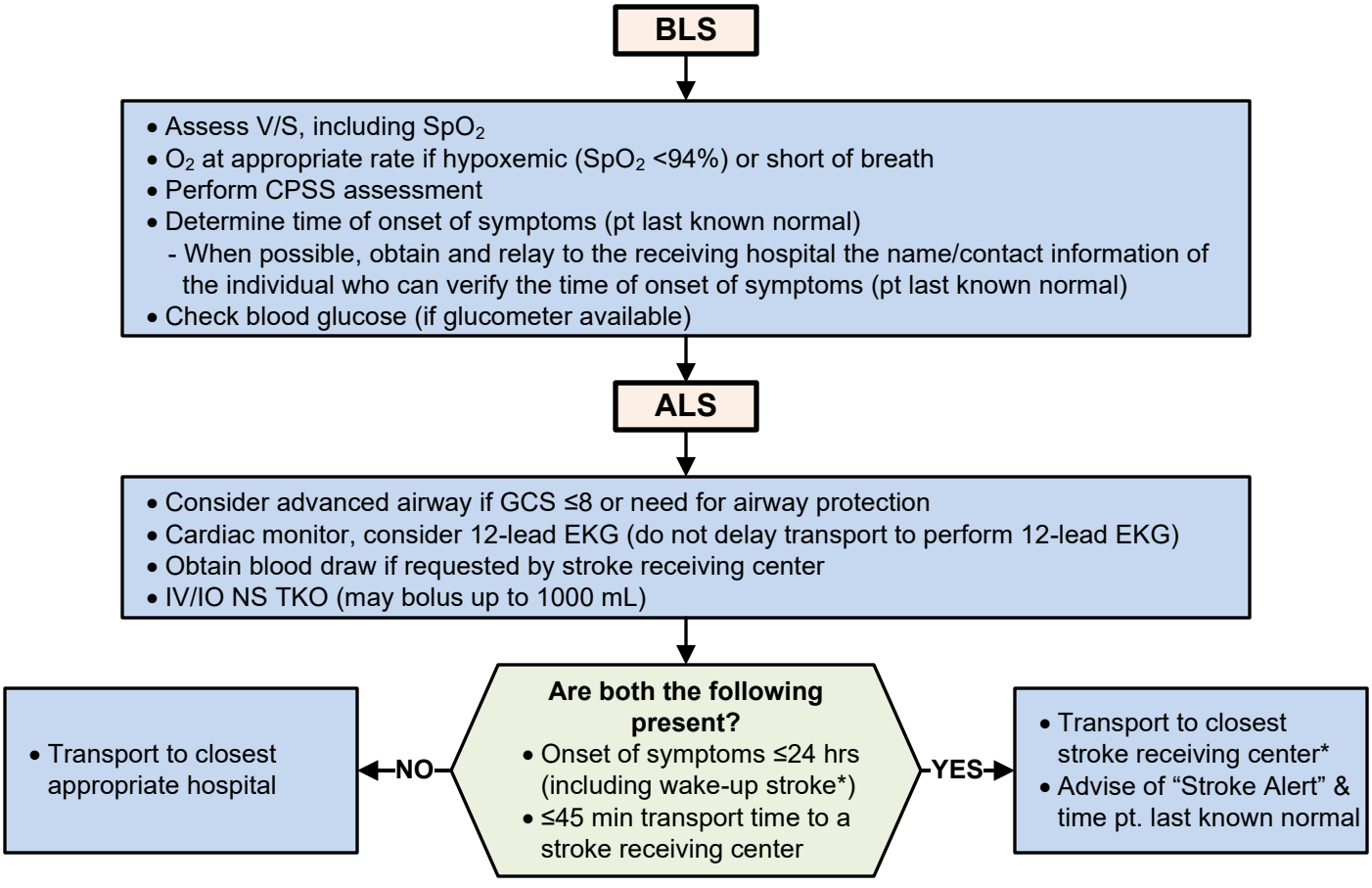
Sierra – Sacramento Valley EMS Agency Treatment Protocol	N-3
Suspected Stroke	
Approval: Troy M. Falck, MD – Medical Director	Effective: 10/01/2026
Approval: John Poland – Executive Director	Next Review: 07/2029

Suspect stroke for any of the following:

- New onset symptoms with abnormal CPSS
- New onset altered state (GCS <14) with unidentifiable etiology
- CPSS is normal, but pt/bystander report stroke symptoms within previous 24 hrs
- **Wake-up stroke definition:** Pt awakens with stroke symptoms that were not present prior to falling asleep

Cincinnati Prehospital Stroke Scale (CPSS) (Score 0-3)

Component	Normal Result (0 point ea.)	Abnormal Result (1 point ea.)
Facial Droop (Ask pt to show teeth or smile)	Both sides of face move equally	One side of face does not move as well as the other side
Arm Drift (Ask pt to close eyes & hold both arms out with palms up)	Both arms move the same, or both arms do not move	One arm does not move, or one arm drifts down compared with the other
Speech (Ask pt to say "you can't teach an old dog new tricks")	Pt uses correct words with no slurring	Pt slurs words, uses the wrong words, or is unable to speak



*If CPSS >1 & ≤45 min transport time to a Comprehensive or Thrombectomy Capable Stroke Center: Contact the closest stroke receiving center for destination consultation due to concern for Large Vessel Occlusion (LVO)

Sierra – Sacramento Valley EMS Agency Treatment Protocol	E-7
Hazardous Material Exposure	
Approval: Troy M. Falck, MD – Medical Director	Effective: 10/01/2026
Approval: John Poland – Executive Director	Next Review: 04/2029

Refer to S-SV EMS Hazardous Material Incidents Policy (836)

Important caveats for medical responders:

- EMS personnel shall not enter or provide treatment in the Contamination Reduction Zone (Warm Zone) or Exclusion Zone (Hot Zone) unless trained, equipped and authorized to do so.
- EMS personnel shall not use Haz Mat specific personal protective equipment (PPE), including self-contained breathing apparatus (SCBA), unless trained, fit tested and authorized to do so.
- Do not transport pts until they have been completely decontaminated. If transport personnel become contaminated, they shall immediately undergo decontamination.
- Do not delay treatment/transport of immediate pts contaminated with radioactive material.
- Early base/modified base hospital contact, and CHEMPACK activation when appropriate (S-SV EMS Nerve Agent Treatment Protocol E-8), will maximize assistance from necessary resources.
- Refer to Hazardous Materials Medical Management Reference as appropriate.

Information that must be obtained by EMS personnel on every hazardous materials incident:

- Number of pts.
- Material involved or DOT 4-digit placard #.
- Route(s) of exposure for each pt.
- Signs & symptoms for each pt.
- Decontamination procedure completed for each pt.
- Procedure utilized to determine effectiveness of decontamination procedure.
- Risk of secondary exposure to rescuers.
- PPE required to transport pt.

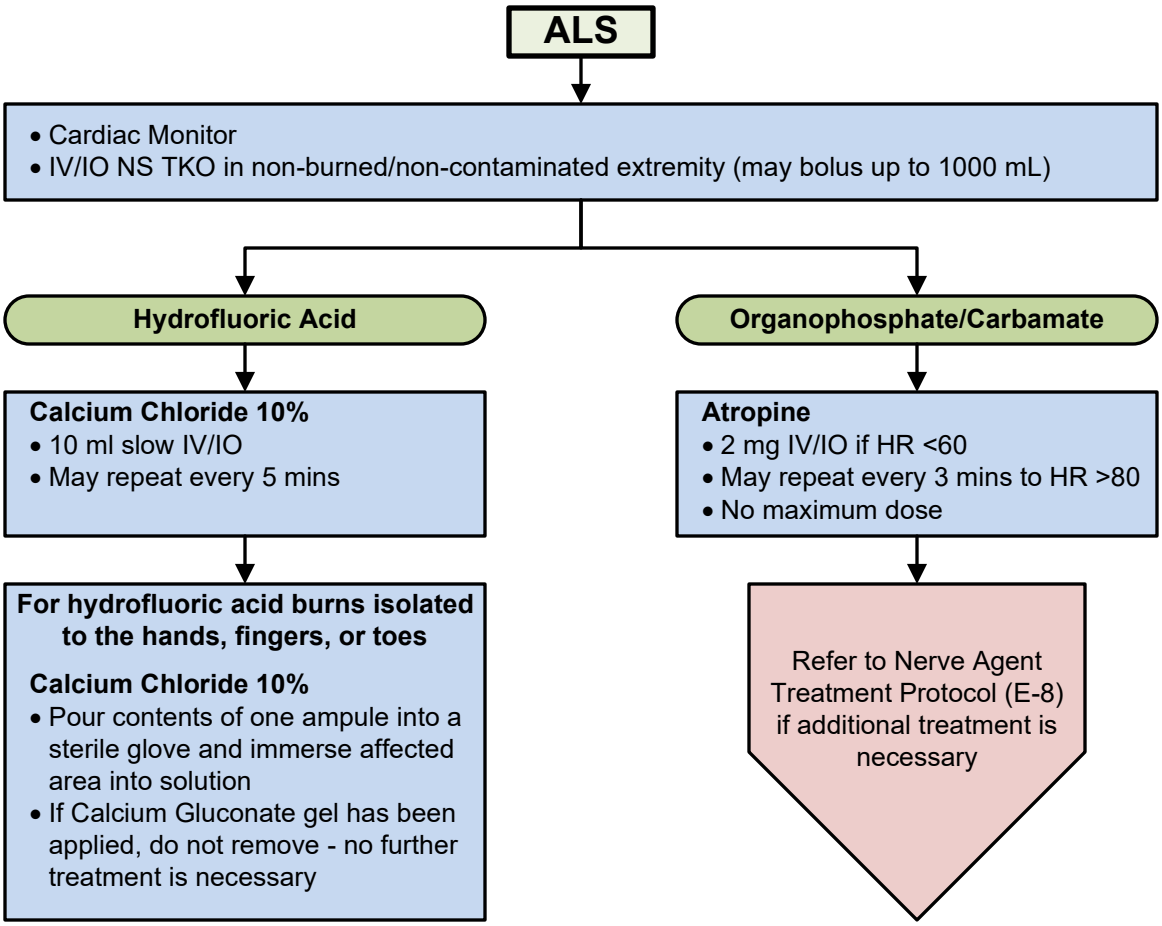
BLS

- Establish and secure airway as necessary
- O_2 at appropriate rate
- Contact base/modified base hospital for assistance in determining a decontamination/treatment plan
- After pt is fully decontaminated, cover with blankets and/or sheets as appropriate
- If eye exposure occurs, irrigate each exposed eye with NS – ensure contact lenses are removed

See pages 2 & 3 for additional treatment

Treatment Notes

- Skin exposure to hydrofluoric acid with a concentration >20% can cause fatal hypocalcemia and should be treated. Provide continuous EKG monitoring to look for QT-interval prolongation which is an early sign of hypocalcemia.
- Precautions must be taken to prevent direct contact with secretions of a pt who has ingested organophosphates or carbamate pesticides.



Radiation Emergencies

- Pt care takes priority over radiological concerns - addressing contamination issues should not delay treatment of life-threatening injuries.
- Viable pts are a high priority - rapidly extricate, treat and transport pts who are most critical and likely to survive.
- It is highly unlikely that the levels of radioactivity associated with a contaminated pt would pose a significant health risk to care providers.
- Body substance isolation clothing (gloves, gowns, N-95 masks, protective eyewear, shoe protectors, and head cap) are recommended, including 2-3 pair of disposable gloves.
- Due to fetal sensitivity to radiation, assign pregnant staff to other duties.

Ambulance Preparation (to the degree possible)

- Avoid using internal and external compartments - work out of mobile kits as much as possible.
- Close all internal compartments prior to loading pt.
- Cover radio communication microphones with a rubber glove.
- Cover floor of ambulance with disposable papers or pads.

Radiation Exposure Haz Mat Pt

- If O_2 is warranted, use a non re-breather mask (if tolerated) to provide protection from inadvertent respiratory contamination hazards - an N95 mask is appropriate to protect pt from inadvertent respiratory contamination hazards when O_2 is not indicated
- Frequent glove changes will reduce the spread of contamination and should be considered prior to handling the pt or pt care adjuncts
- All medical procedures should be utilized to save an immediate pt - if it is medically necessary to intubate a pt that is contaminated, then do so - change gloves prior to intubation, and maintain ET tube sterility if possible

Limited or no field decontamination

- Initiate ALS care as necessary
- Keep pt wrapped (cocoon style) to minimize potential for contamination spread - only expose areas to assess and treat
- If necessary, cut and remove the pts clothing away from the body, being careful to avoid contamination to the unexposed skin - contain all removed clothing by placing in a sealable bag
- Continue to reassess/monitor vitals while transporting pt to the appropriate receiving facility
- Contact with pt may result in transfer of contamination - change gloves as necessary

Field decontamination performed

- Pts with non life-threatening injuries should have field decontamination prior to removal from the Exclusion (Hot) Zone
- Pts condition permits a more thorough radiological survey prior to continued care
- Conduct head to toe assessment as appropriate
- Initiate ALS care as necessary
- If pts clothing has not been removed during decontamination, keep pt wrapped (cocoon style) to minimize potential for contamination spread - only expose areas to assess and treat
- Contact with pt may result in transfer of contamination - change gloves as necessary

Sierra – Sacramento Valley EMS Agency Treatment Protocol	E-8
Nerve Agent Treatment	
Approval: Troy M. Falck, MD – Medical Director	Effective: 10/01/2026
Approval: John Poland – Executive Director	Next Review: 04/2029

Refer to S-SV EMS Hazardous Material Incidents Policy (836)

Important caveats for medical responders:

- EMS personnel shall not enter or provide treatment in the Contamination Reduction Zone (Warm Zone) or Exclusion Zone (Hot Zone) unless trained, equipped and authorized to do so.
- EMS personnel shall not use Haz Mat specific personal protective equipment (PPE), including self-contained breathing apparatus (SCBA), unless trained, fit tested and authorized to do so.
- Do not transport pts until they have been completely decontaminated. If transport personnel become contaminated, they shall immediately undergo decontamination.

Treatment notes:

- A base/modified base hospital physician order must be obtained prior to utilizing this protocol for pt treatment. Once an order is obtained, the entire protocol becomes a standing order that applies to all authorized/trained EMS personnel operating at the incident.
- Atropine (2mg) and pralidoxime chloride (600mg) auto-injectors included in MARK I/DuoDote nerve agent antidote kits shall only be used by authorized/trained EMS personnel.
- Paramedics may administer atropine and/or pralidoxime chloride IM/IV in situations where auto-injector nerve agent antidote kits are not available.
- EMS personnel may self-administer nerve agent antidote kits when authorized/trained to do so.
- Adult auto-injectors are not to be used in children under 40 Kg.
- Nerve agent antidote medications are only given if the pt is showing signs & symptoms of nerve agent poisoning, they are not to be given prophylactically. A decrease in bronchospasm and respiratory secretions are the best indicators of a positive response to atropine and pralidoxime.

Signs/Symptoms of Nerve Agent Exposure (mild to severe)

1. Runny nose
2. Chest tightness
3. Difficulty breathing
4. Bronchospasm
5. Pinpoint pupils/blurred vision
6. Drooling
7. Excessive sweating
8. Nausea/vomiting
9. Abdominal cramps
10. Involuntary urination/defecation
11. Jerking/twitching/staggering
12. Headache
13. Drowsiness
14. Coma
15. Convulsions
16. Apnea

Nerve Agent Exposure Mnemonic (SLUDGEM)

Salivation
Lacrimation
Urination
Defecation
GI distress
Emesis
Miosis/muscle fasciculation

CHEMPACK

Description:

- The Centers for Disease Control and Prevention (CDC) established the CHEMPACK project resulting in the forward placement of sustainable caches of nerve agent antidotes.
- CHEMPACK caches have been placed at select sites throughout the S-SV EMS region and surrounding areas according to program requirements and effective transportation alternatives.
- EMS CHEMPACK caches contain enough antidote to treat approximately 454 patients. These caches contain primarily auto-injectors for rapid administration, but also contain some multi-dose vials for variable dosing (including pediatric patients) and prolonged treatment.
- Authorization to deploy CHEMPACK assets will be limited to an event that:

  1. Threatens the medical security of the community; and
  2. Places multiple lives at risk; and
  3. Is otherwise beyond local emergency response capabilities; and
  4. Will likely make the material medically necessary to save human life.

CHEMPACK requesting/deployment:

- A requestor is considered to be one of the following entities at the scene of a suspected nerve agent or organophosphate release with known, suspected, or potential contaminated, exposed, or affected patients:

  1. EMS prehospital personnel; or
  2. Incident Commander (IC); or
  3. Medical Group Supervisor (MGS).

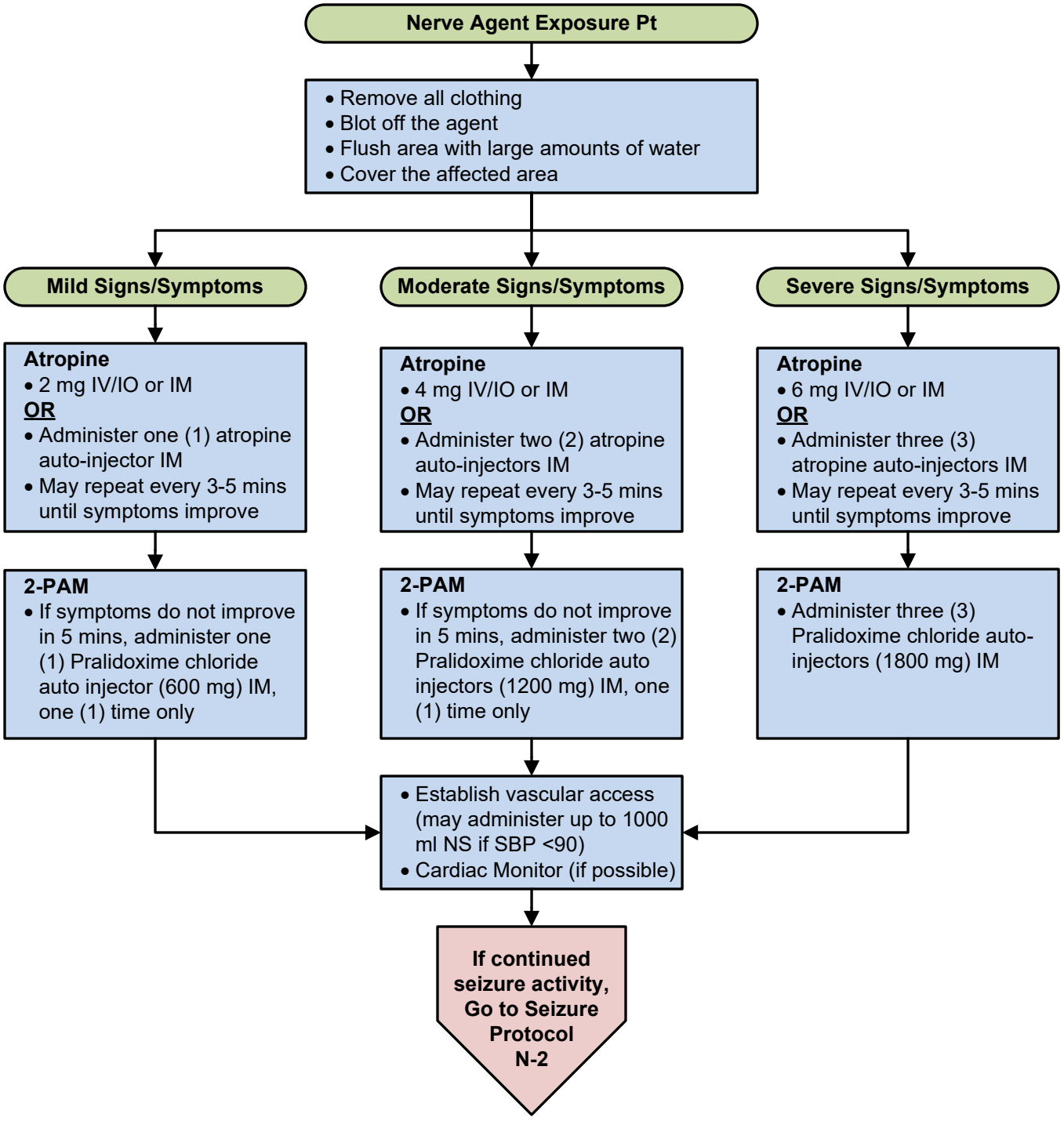
- Potential requestors should be familiar with and follow their Operational Area (OA)/county specific CHEMPACK plans and procedures
- The S-SV EMS Duty Officer and applicable MHOAC Program(s) shall be notified as soon as possible in the event of a CHEMPACK request/deployment.

See page 3 for specific treatment

Nerve Agent Treatment

Treatment Notes

- Only treat pts located in the Exclusion Zone (Hot Zone) with IM auto-injectors



Sierra – Sacramento Valley EMS Agency Treatment Protocol	T-1
General Trauma Management	
Approval: Troy M. Falck, MD – Medical Director	Effective: 10/01/2026
Approval: John Poland – Executive Director	Next Review: 07/2029

- **Limit on scene procedures for pts meeting Field Trauma Triage Criteria to:**
  - Pt assessment - Airway management - Hemorrhage control - Immobilization/splinting - SMR
- **Transport pts with known/apparent third trimester pregnancy in left-lateral position.**
- **Notify receiving hospital of a 'Trauma Alert' as soon as possible for pts meeting Field Trauma Triage Criteria.**

BLS

- Assess & support ABCs
- Assess V/S, including SpO_2
- O_2 at appropriate rate if hypoxemic (SpO_2 <94%) or short of breath
- Control hemorrhage & immobilize/splint injuries as needed
- Initiate spinal motion restriction (SMR) if indicated (see page 3)
- Maintain body temperature, keep warm

ALS

- Consider advanced airway if indicated
- Consider $EtCO_2$ monitoring if indicated (see protocol T-3 or T-3P)
- Consider application of a pelvic binder if indicated (see page 2)
- Cardiac monitor
- Establish vascular access if indicated (see page 2)
- Consider pain management if indicated (see protocol M-8 or M-8P)

Field Trauma Triage Criteria (TTC) Pt Destination (see page 4 for TTC details)

Unmanageable Airway? — YES → **Transport to Closest Hospital**

NO ↓

Meets RED TTC? — YES →

Adult (>14yo)
- If level I or II trauma center is closest, transport to that facility
- If level III or IV trauma center is closest, contact that facility (prior to transport) for destination consultation

Pediatric (≤14yo)
- Transport to pediatric trauma center if transport time ≤45 min
- Follow adult criteria if transport time to pediatric trauma center >45 min
- Contact closest trauma center for destination consultation if needed

NO ↓

Meets YELLOW TTC? — YES →

- Contact closest trauma center for destination consultation if transport time to that facility is ≤45 min
- Contact base/modified base hospital for destination consultation if transport time to a trauma center is >45 min

Vascular Access

Need or anticipated need for fluid or medication administration?

NO → Vascular access not indicated

YES ↓

IV/IO – NS or LR

- Initiate vascular access on all pts meeting Field Trauma Triage Criteria
- Initiate second vascular access on adult pts presenting with hypotension (SBP <90 for pts <65 years of age, or SBP <100 for pts ≥65 years of age), or if thoracic/abdominal pain is present
- Fluid resuscitation guidelines (do not aggressively administer fluids – control volume resuscitation):
  - Adult pts:
    - For pts in hemorrhagic shock from trauma – target SBP 80-100
    - For pts in hemorrhagic shock with suspected moderate/severe TBI or spinal cord injury – target SBP >100
  - Pediatric pts:
    - Administer 20 mL/kg fluid boluses for signs of hypoperfusion/shock
    - Reassess hemodynamic parameters, respiratory status and lung sounds after each bolus
    - Titrate fluid boluses to age appropriate SBP (max cumulative: 60 mL/kg)

Commercial Pelvic Binder

- Approved Commercial Pelvic Binders: Any commercial pelvic binder currently recommended by the Committee on Tactical Combat Casualty Care (CoTCCC).
- Utilization of a commercial pelvic binder is optional, and only approved for AEMT/paramedic personnel. ALS/LALS provider agencies must ensure that their personnel are appropriately trained on the application/use of the device, as misplacement of pelvic binders can significantly decrease the ability of the binder to reduce pelvic ring fractures.
- Physical exam findings which may indicate the presence of a pelvic ring fracture include, but are not limited to:
  - Crepitus when applying compression to the iliac crests
  - Perineal or genital swelling
  - Testicular/groin pain
  - Blood at the urethral meatus
  - Rectal, vaginal or perineal lacerations/bleeding
- When stabilizing a suspected pelvic ring fracture, care must be taken not to over-reduce the fracture. Over-reduction can be assessed by examining the position of the legs, greater trochanters and knees with the pt supine. The goal is to achieve normal anatomic position of the pelvis, so the lower legs should be symmetrical after stabilization.
- When clinically indicated and logistically feasible, the pelvic binder should be placed prior to extrication/movement.
- Pelvic binders should be placed directly to skin. Once applied, pelvic binders should not be removed.
- If possible, avoid log-rolling pts with a suspected pelvic fracture.

Mechanism of injury suggestive of a pelvic fracture?

NO → Pelvic binder not indicated

YES ↓

Does pt present with one or more of the following?

- Physical exam findings suggestive of a pelvic fracture
- Hemodynamic instability: HR >100 & SBP <90 (or SBP <100 in pts ≥65 years of age)

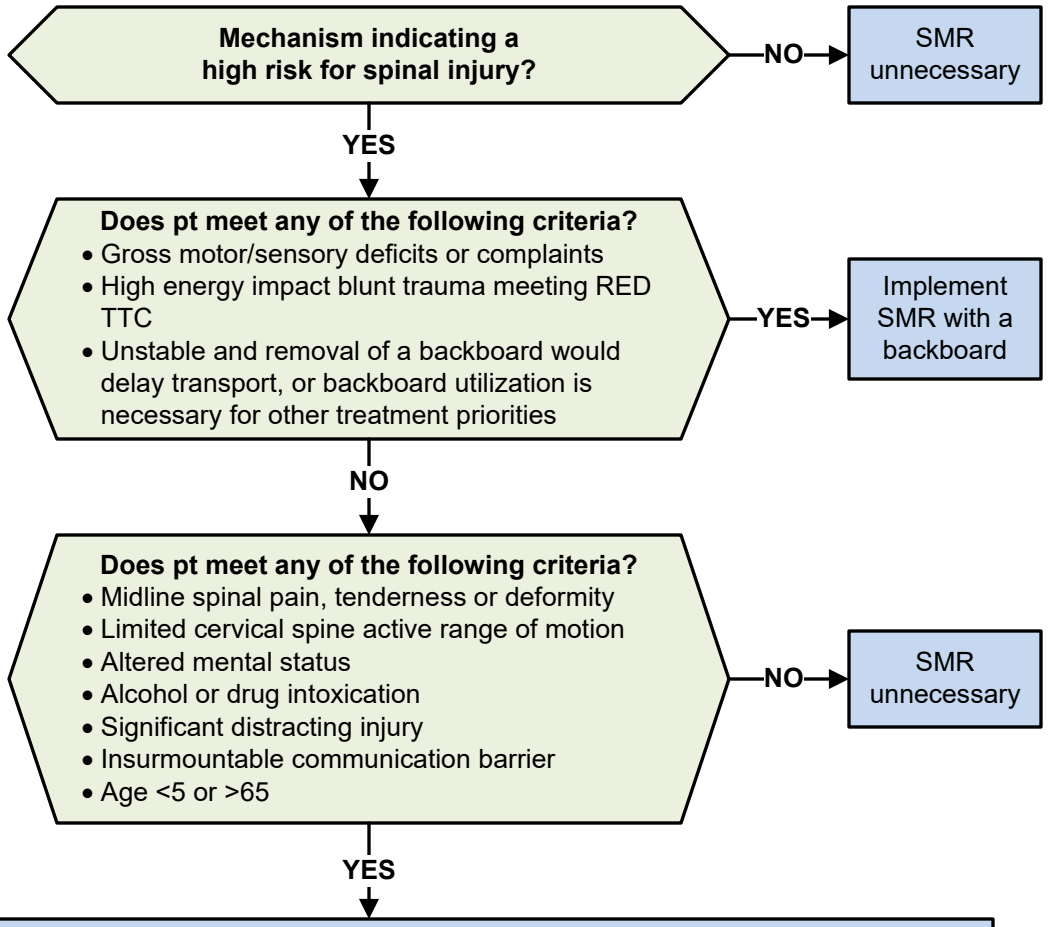
NO → Pelvic binder not indicated

YES ↓

Apply pelvic binder according to manufacturer instructions

Spinal Motion Restriction (SMR)

- A backboard shall not be utilized for pts with penetrating trauma to the head, neck or torso without evidence of spinal injury
- Helmet removal guidelines:
  - For pts who meet criteria for SMR with a backboard, football helmets should only be removed if they prevent adequate SMR or under the following circumstances:
    - If the helmet and chin strap fail to hold the head securely or prevent adequate airway control.
    - If the facemask cannot be removed.
  - Football helmets should be carefully removed to allow for appropriate SMR of pts who do not meet criteria for backboard utilization.
  - All other types of helmets (bicycle, motorcycle, etc.) should be carefully removed to allow for appropriate SMR.



Implement SMR without a backboard as follows:

- Alert & cooperative pts may be allowed to self-limit motion if appropriate with or without cervical collar
- Allow ambulatory pts to sit on the stretcher and then lie flat (no 'standing take-down")
- If necessary, move pt from the position found to the ambulance stretcher utilizing a device such as a KED, scoop stretcher, backboard, or if necessary, by having the pt stand and pivot to the stretcher – do not permit the pt to struggle to their feet from a seated or supine position
- Once on the ambulance stretcher, remove any hard backboard device & instruct the pt to lie still
- The head of the stretcher may be elevated 20-30^0 in a position of comfort
- Secure cross stretcher straps and over-the-shoulder belts firmly
- Pts with nausea &/or vomiting may by placed in the lateral recumbent position, maintaining the head in a neutral position using manual stabilization, padding, pillows, &/or the pt's arm

Field Trauma Triage Criteria (TTC)

RED TTC (High Risk for Serious Injury)

Injury Patterns

- Penetrating injuries to head, neck, torso, &/or proximal extremities
- Skull deformity, suspected skull fracture
- Suspected spinal injury with new motor/sensory loss
- Chest wall instability, deformity, or suspected flail chest
- Suspected pelvic fracture
- Suspected fracture of two or more proximal long bones in a pt of any age, or one or more proximal long bone fracture in a pt ≤14 or ≥65 years of age
- Suspected open proximal long bone fracture
- Crushed, degloved, mangled, or pulseless extremity
- Amputation proximal to wrist or ankle
- Continued, uncontrolled bleeding despite EMS hemorrhage control measures

Mental Status/Vital Signs

MENTAL STATUS

- **<65 years of age:**
  - GCS ≤13
- **≥65 years of age:**
  - GCS <15 (or decreased from baseline) with evidence/suspicion of a head strike

RESPIRATORY STATUS

- **All pt ages:**
  - RR <10 or >29 breaths/min
  - Resp. distress or need for resp. support
  - Room-air SpO_2 <90%

CIRCULATORY STATUS

0-9 years of age:
- SBP <70mm Hg + (2 x age years)

10-64 years of age:
- SBP <90 mmHg **OR** HR>SBP

≥65 years of age:
- SBP <100 mmHG **OR** HR>SBP

YELLOW TTC (Moderate Risk for Serious Injury)

Mechanism of Injury

- High-Risk Auto Crash
  - Partial or complete ejection
  - Significant intrusion (including roof)
    - >12 inches occupant site; or
    - >18 inches any site; or
    - Need for extrication for entrapped pt
  - Death in passenger compartment
  - Child (0-9 years of age) unrestrained or in unsecured child safety seat
  - Vehicle telemetry data consistent with severe injury
- Rider separated from transport vehicle with significant impact (motorcycle, ATV, horse, etc.)
- Pedestrian/bicycle rider thrown, run over, or with significant impact
- Fall from height >10 feet (all ages)

EMS Judgement

EMS personnel should consider the following risk factors, and contact the closest trauma center or base/modified base hospital for destination consultation (see page 1), if transport to a trauma center is believed to be in the pt's best interest:

- Low-level falls in young children (≤5 years of age) or older adults (≥65 years of age) with significant head impact
- Anticoagulant use
- Suspicion of child abuse
- Special, high-resource healthcare needs
- Pregnancy >20 weeks
- Burns in conjunction with trauma

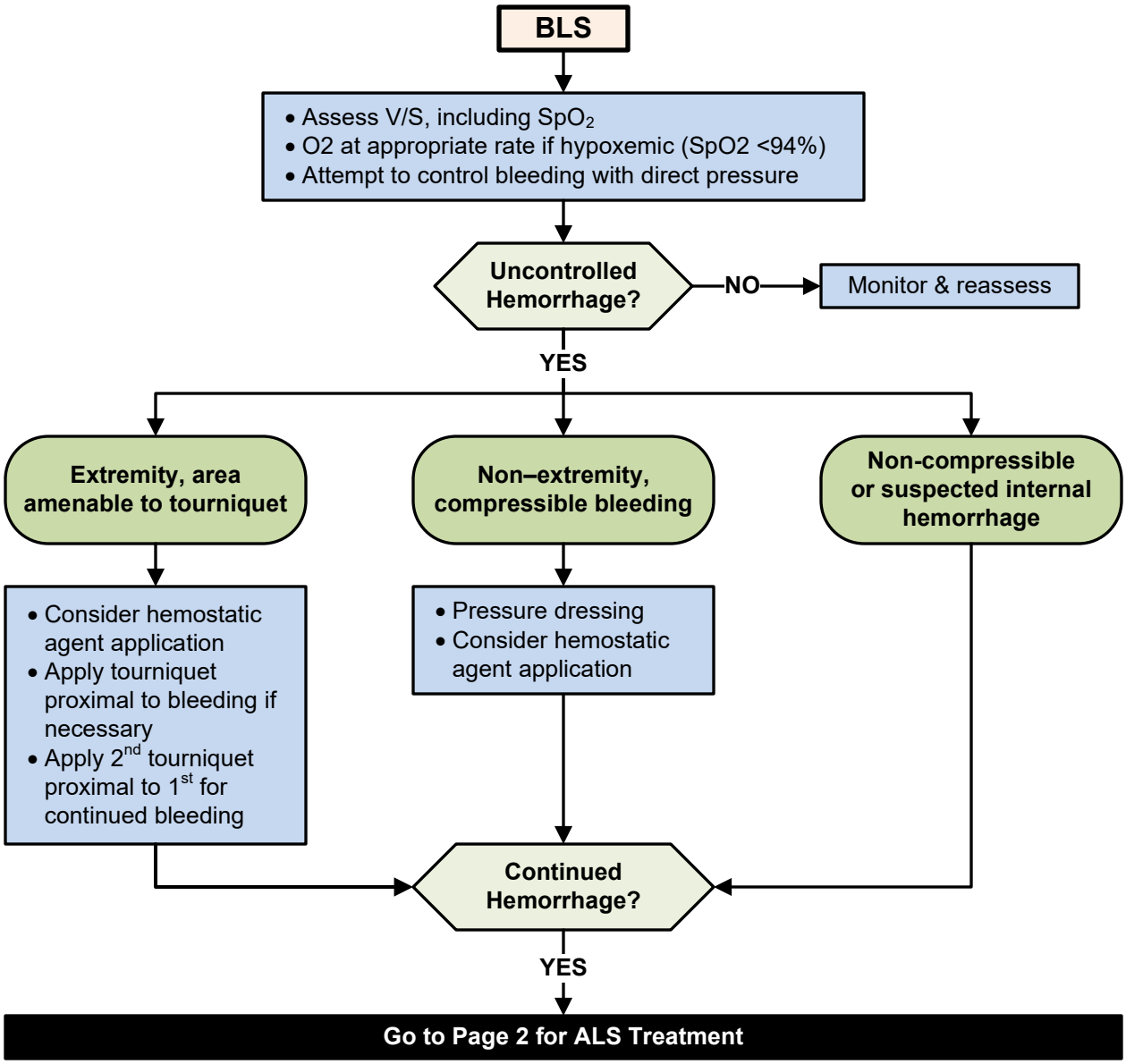
Sierra – Sacramento Valley EMS Agency Treatment Protocol	T-4
Hemorrhage	
Approval: Troy M. Falck, MD – Medical Director	Effective: 10/01/2026
Approval: John Poland – Executive Director	Next Review: 07/2029

Tourniquet Devices:

- Any windlass style device included on the current Committee on Tactical Combat Casualty Care (CoTCCC) recommended Limb Tourniquets (non-pneumatic) list may be utilized by EMS personnel.
- Tourniquets applied by lay rescuers or other responders shall be evaluated for appropriateness and may be adjusted or removed if necessary – improvised tourniquets should be removed by prehospital personnel.
- If application is indicated & appropriate, a commercial tourniquet should not be loosened or removed by prehospital personnel unless time to definitive care will be greatly delayed (>2 hrs).

Hemostatic Dressings:

- Any hemostatic agent that is incorporated into gauze (no loose granules/particles) included on the current CoTCCC recommended Hemostatic Dressings list may be utilized by EMS personnel.



- In trauma pts with suspected active hemorrhage, control life-threatening bleeding before routine airway or blood pressure augmenting interventions.
- Push-dose epinephrine is not routinely indicated for hemorrhagic shock & may worsen bleeding by increasing BP before hemorrhage control is achieved.
- Routes for TXA other than IV/IO (e.g., nebulized, topical) may be considered (with base/modified base hospital order) for bleeding from epistaxis, lacerations, or oral trauma.
- For post-partum hemorrhage, refer to Childbirth Protocol (OB-G1).

ALS

- Cardiac monitor, $EtCO_2$ monitoring
- Establish vascular access
- Do not aggressively administer fluids – control volume resuscitation:
  - For pts in hemorrhagic shock from trauma – target SBP 80-100
  - For pts in hemorrhagic shock with suspected moderate/severe TBI or spinal cord injury – target SBP >100
- If hemorrhagic shock persists, evaluate for Tranexamic Acid (TXA)

TXA INCLUSION CRITERIA

Does pt meet the following inclusion criteria?

- Blunt or penetrating traumatic injury with signs/symptoms of hemorrhagic shock: including SBP <90 or <100 in pts ≥65 yo

OR

- Significant hemorrhage (either of the following):
  - Significant blood loss with HR >120
  - Hemorrhage not controlled by direct pressure, hemostatic agents, or commercial tourniquet application

NO → Monitor & reassess

YES

TXA EXCLUSION CRITERIA

Does pt. meet any of the following exclusion criteria?

- Extremity hemorrhage controlled by tourniquet
- Time since injury >3 hrs
- Isolated traumatic brain injury
- Thromboembolic event (i.e., stroke, MI, PE) in past 24 hrs
- Hypotension secondary to suspected cervical cord injury with motor deficit or spinal shock

YES → Monitor & reassess

NO

BASE/MODIFIED BASE HOSPITAL ORDER ONLY

Tranexamic Acid (TXA) IV/IO

- Mix 2 gm TXA in 100mL D_5W or NS and infuse over 10 mins

Sierra – Sacramento Valley EMS Agency Treatment Protocol	T-5
Burns	
Approval: Troy M. Falck, MD – Medical Director	Effective: 10/01/2026
Approval: John Poland – Executive Director	Next Review: 04/2029

Important Notes

- 20CRW = 20 Minutes of Cool Running Water, which is the recommended initial treatment for burns involving <30% total body surface area (TBSA). It helps stop the burning process, reduce pain, limit tissue damage, & improve healing outcomes. Avoid cold water in small children to prevent hypothermia. Avoid ice.

BLS

Initial Actions:

- Stop the burn & remove clothing/jewelry (as applicable)
- Assess V/S, including SpO_2
- If signs/symptoms of inhalation injury (singed nasal hairs, hoarseness, carbonaceous sputum):
  - High-flow O_2
  - Manage airway as appropriate

Secondary Actions:

- For thermal burns <30% TBSA, & in the absence of life-threatening injuries, cool with 20CRW
- Estimate % TBSA burned & severity
- Cover burns with dry sterile dressings, burn sheets, or loose clear plastic wrap
- Maintain normothermia

ALS

- Cardiac monitoring
- Consider $EtCO_2$ monitoring as indicated
- Consider early advanced airway if evidence of inhalation injury or compromised respiratory effort
- If wheezes are present:
  - **Albuterol:** 5 mg in 6 mL NS via HHN, mask, or BVM
- Refer to applicable Pain Management Protocol (M-8/M-8P) for pain management treatment
- **IV/IO – NS/LR**
  - Initial fluid resuscitation for pts with >9% partial thickness (2^{o}) or full thickness (3^{o}) burns:
    - ≤5 yo: 125 mL/hr
    - 6 - 13 yo: 250 mL/hr
    - ≥14 yo: 500 mL/hr
  - If pt is hypotensive, refer to applicable General Medical Treatment Protocol (M-6/M-6P) for fluid resuscitation guidelines

SEE PAGE 2 FOR PT TRANSPORT DESTINATION DIRECTION & BURN CHART REFERENCE

Burns

PT TRANSPORT DESTINATION DIRECTION

Does pt meet Field Trauma Triage Criteria (Protocol T-1)?

YES → Refer to General Trauma Management Protocol T-1 for destination direction

NO

Does pt meet the following criteria?

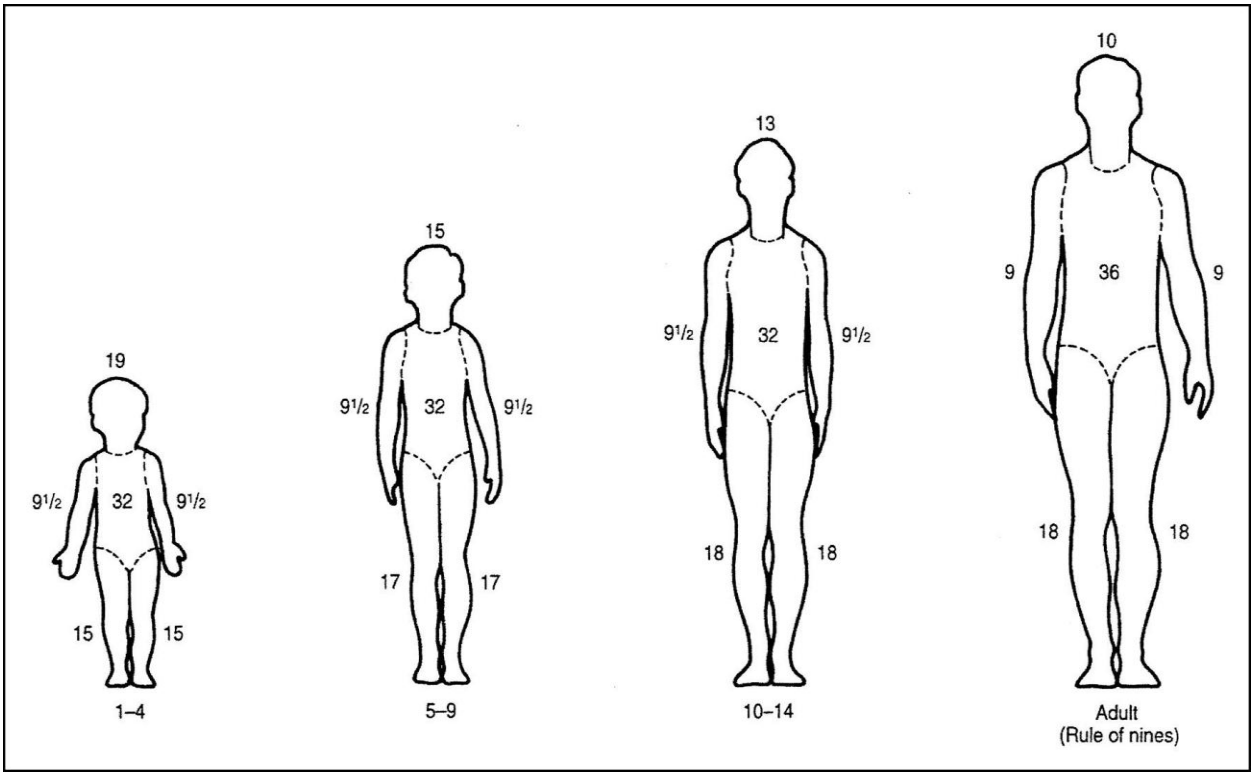
- Transport time ≤45 mins to a Burn Center, manageable airway, hemodynamically stable, & one (1) or more of the following:
  - >9% partial thickness (2^o) burns
  - Any full thickness (3^o) burns
  - Burns involving the face, hands, feet, genitalia, perineum, or joints
  - Inhalation injuries
  - Electrical, lightning, or chemical burns

YES → Transport to Burn Center

NO

Contact the closest base/modified base hospital for destination direction

BURN CHART

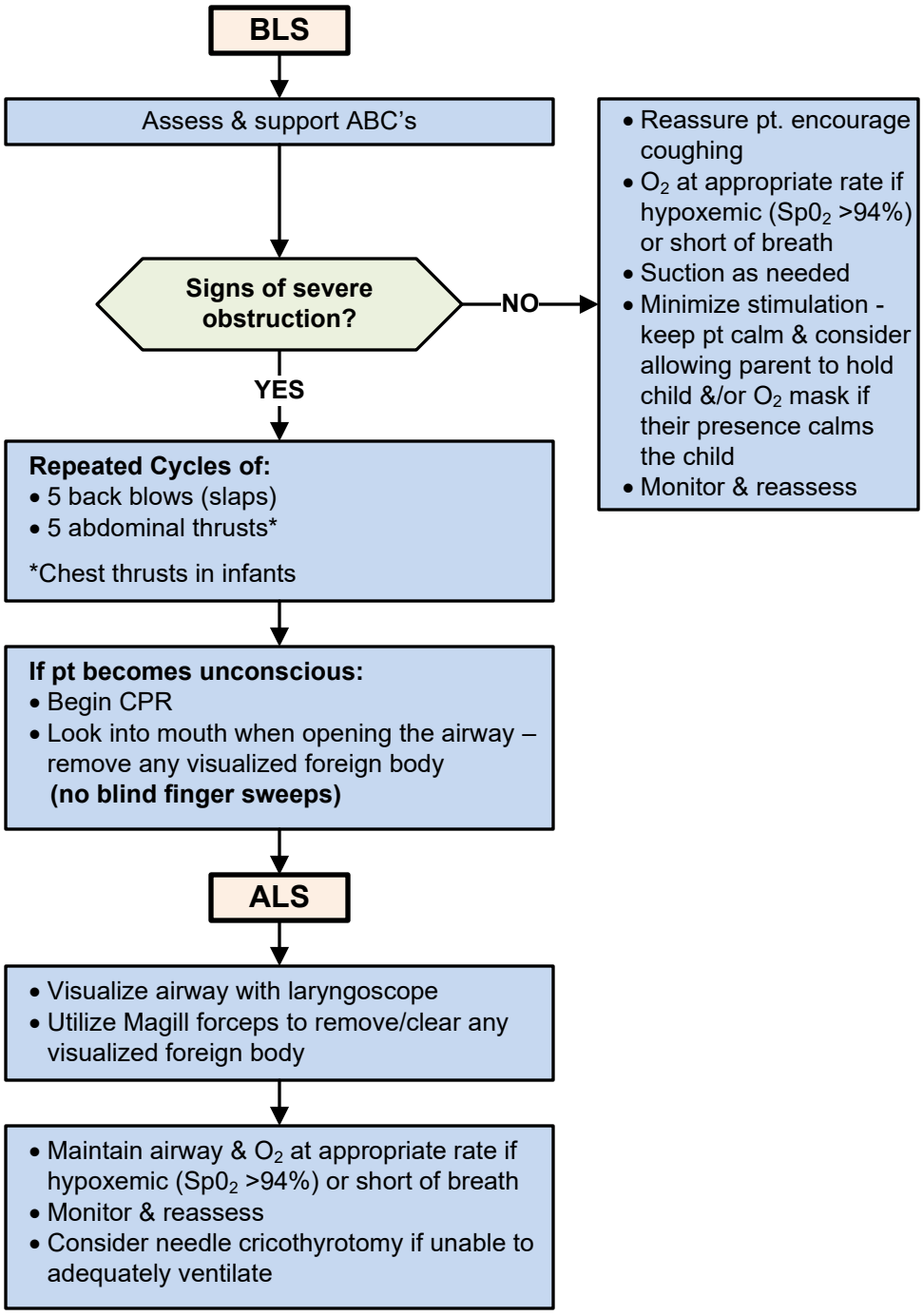


Sierra – Sacramento Valley EMS Agency Treatment Protocol	R-1P
Pediatric Foreign Body Airway Obstruction (FBAO)	
Approval: Troy M. Falck, MD – Medical Director	Effective: 10/01/2026
Approval: John Poland – Executive Director	Next Review: 07/2029

- Signs/symptoms of FBAO: sudden onset of respiratory distress with coughing, gagging, stridor, or wheezing.
- Do not use tongue/jaw lift or perform blind finger sweep.
- Do not perform deep suctioning. Oropharyngeal suctioning should be performed while visualizing the FBAO.

Signs of severe obstruction:

- Poor air exchange - Silent cough - Increased breathing difficulty - Inability to speak or breathe - Cyanosis



S-SV EMS Policy/Protocol Manual Update #79
LALS (AEMT) Protocols

Sierra – Sacramento Valley EMS Agency Treatment Protocol	C-2 (LALS)
Return Of Spontaneous Circulation (ROSC)	
Approval: Troy M. Falck, MD – Medical Director	Effective: 10/01/2026
Approval: John Poland – Executive Director	Next Review: 07/2029

BLS

- Manage airway as needed, optimize ventilation & oxygenation
  - O_2 at appropriate rate to maintain SpO_2 ≥90% (do not hyperventilate)
- Assess V/S, including SpO_2 - reassess V/S every 3 - 5 min if possible
- Monitor for reoccurrence of cardiac arrest

LALS

- Continuous $EtCO_2$ monitoring - goal: 35-45 mmHG
- Obtain 12-Lead EKG **(AEMT II)**
- Consider blood glucose assessment
- IV NS at appropriate rate (may bolus up to 1000 mL for hypotension)

Mean Arterial Pressure (MAP)

$$\frac{(\text{Systolic}) + (\text{Diastolic X2})}{3}$$

Pulse <60/min — YES → Refer to Bradycardia With Pulses Protocol (C-3 LALS)

NO

Recurrent V-tach — YES → Refer to Tachycardia with Pulses Protocol (C-4 LALS)

NO

STEMI? — YES → Refer to Chest Discomfort/ Suspected ACS Protocol (C-6 LALS) for pt destination

NO →

- Transport to closest facility
- Target MAP ≥65 mmHg

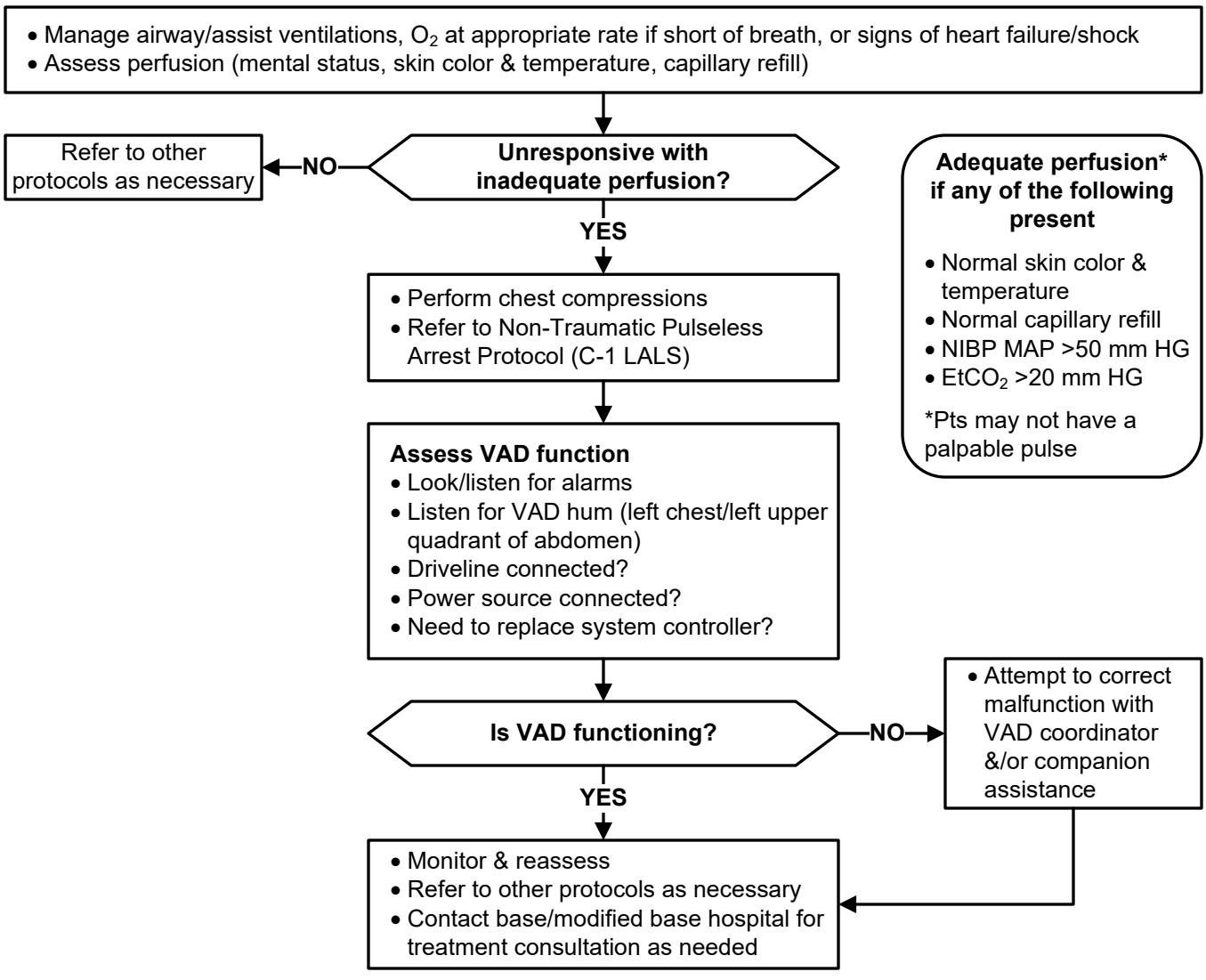
Push-Dose Epinephrine (AEMT II)

- Titrate to a MAP ≥65 mmHg
  - Eject 1 mL NS from a 10 mL pre-load syringe
  - Draw up 1 mL epinephrine 1:10,000 concentration & gently mix
  - Administer 1 mL IV push every 1 - 5 mins

Re-Arrest → Refer to Non-Traumatic Pulseless Arrest Protocol (C-1 LALS)

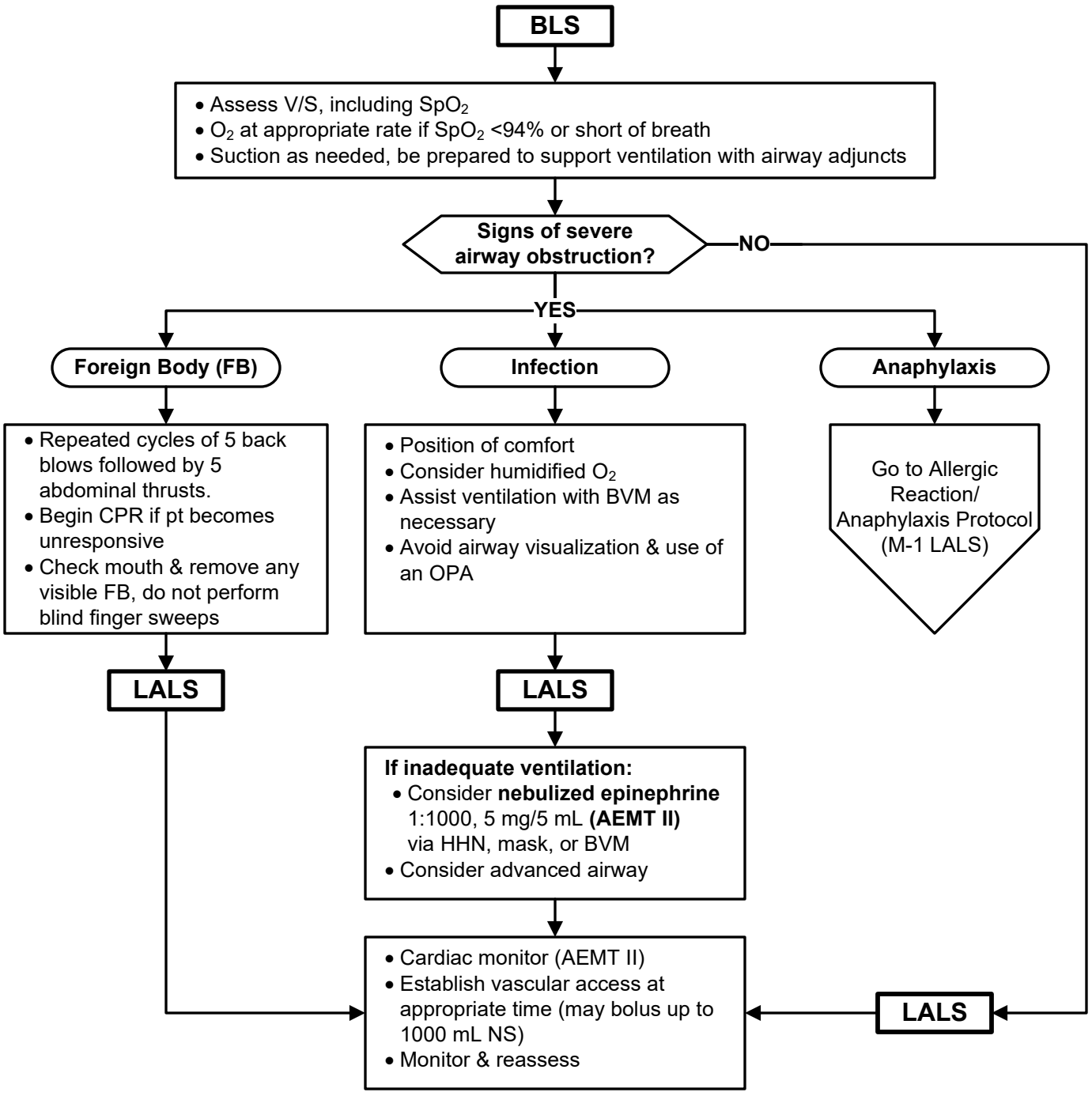
Sierra – Sacramento Valley EMS Agency Treatment Protocol	C-5 (LALS)
Ventricular Assist Device (VAD)	
Approval: Troy M. Falck, MD – Medical Director	Effective: 10/01/2026
Approval: John Poland – Executive Director	Next Review: 07/2029

- VAD pts may also have an Implanted Cardioverter-Defibrillator (ICD) or a Pacemaker/ICD.
- VAD pts may not have a palpable pulse as these are continuous flow devices. Utilize a cardiac monitor to accurately establish the pt's heart rate/rhythm. Arrhythmias with signs of inadequate perfusion should be treated according to applicable S-SV EMS protocols. If defibrillation or cardioversion is indicated, follow the applicable treatment protocol (the pump is insulated so that electrical therapy should not be an issue).
- VAD pts may not have a blood pressure obtainable by standard EMS measurement methods. An accurate blood pressure is typically obtained via doppler, however, auscultation or NIBP readings may be possible.
- SpO_2 may not be measurable or accurate. $EtCO_2$ monitoring should be utilized.
- In any emergency involving a VAD patient, contact the VAD coordinator as soon as possible. VAD patients and companions are instructed to call 911 and page the coordinator, whose contact information is usually attached to or located inside the patient's VAD equipment bag.
- VAD pts should be transported to the nearest appropriate VAD center. If the pt's condition does not warrant transportation to the VAD center, the base/modified base hospital shall be consulted for pt destination. The VAD equipment bag, power source, battery & charger shall be brought with any transported VAD pt.



Sierra – Sacramento Valley EMS Agency Treatment Protocol	R-1 (LALS)
Airway Obstruction	
Approval: Troy M. Falck, MD – Medical Director	Effective: 10/01/2026
Approval: John Poland – Executive Director	Next Review: 07/2029

- **Signs of severe airway obstruction:**
  - Poor air exchange
  - Cyanosis
  - Increased breathing difficulty
  - Inability to speak/breathe
  - Silent cough



Sierra – Sacramento Valley EMS Agency Treatment Protocol	M-6 (LALS)
General Medical Treatment	
Approval: Troy M. Falck, MD – Medical Director	Effective: 10/01/2026
Approval: John Poland – Executive Director	Next Review: 04/2029

Important Notes

- The purpose of this protocol is to provide assessment & treatment modalities for pt complaints not addressed by other S-SV EMS protocols – including suspected sepsis & suspected abdominal aortic aneurysm (AAA).

BLS

- Assess V/S, including SpO_2 & temperature (if able)
- O_2 at appropriate rate if pt is hypoxemic (SpO_2 <94%), short of breath, or has signs of heart failure/shock
- Assess history & physical
- Check blood glucose – if indicated & able

Blood glucose ≤60 mg/dl, or hx & clinical presentation fits hypoglycemia

NO → **LALS**

YES

Oral glucose (BLS) – ONLY if pt is conscious & able to swallow
- Pre-packaged glucose solution/gel or 2-3 tbsp of sugar in water/juice

OR

Dextrose 10% (ALS)
- 10 – 25 g (100 – 250 mL) IV

OR

Glucagon (ALS)
- 1 mg (1 unit) IM/IN

LALS

Consider the following additional assessment/treatment modalities, as appropriate, based on pt's condition & clinical presentation:
- Cardiac monitor/12-lead EKG **(AEMT II)**
- $EtCO_2$ monitoring **(AEMT II)**
- IV NS (may bolus up to 1000 mL if indicated)

- Refer to other sections of this protocol as appropriate:
  - Suspected Sepsis – Page 2
  - Suspected AAA – Page 3

Suspected Sepsis

Important Notes

- Early recognition of sepsis is critical to expedite hospital care and antibiotic administration.
- Aggressive IV fluid therapy is the most important prehospital treatment for sepsis.
- Septic pts are especially susceptible to traumatic lung injury and ARDS. If BVM ventilation is necessary, avoid excessive tidal volumes.
- Attempt to identify the source of infection (skin, respiratory, etc.), previous treatment and related history.
- Consider the possibility of sepsis when a combination of two or more of the following Systemic Inflammatory Response Syndrome (SIRS) criteria are present:
  - Temperature <96.8°F or >100.4°
  - RR >20bpm
  - HR >90bpm
  - ETCO2 ≤25 mmHg

High-Risk Indicators for Sepsis:

- Hx of pneumonia, UTI, MRSA
- Cancer pts
- Nursing home residents
- Pts with indwelling catheters
- Immune-compromised pts

Shock Index (SI):

- SI is used to assess the severity of hypovolemic shock
- SI = HR/SBP
  - Normal SI range is 0.5 to 0.7
  - HR>SBP (SI>1) may indicate sepsis

LALS

- Assess temperature
- $EtCO_2$ monitoring **(AEMT II)**
- IV NS 500 mL boluses to a maximum of 2 L if SIRS criteria remain present
  - Reassess V/S between boluses
  - Discontinue boluses & provide supportive care if signs of pulmonary edema develop

If SBP <90 after 2 L NS:
Push-Dose Epinephrine (AEMT II)

- Eject 1 mL NS from a 10 mL flush syringe
- Draw up 1 mL epinephrine 1:10,000 & gently mix
- Administer 1 mL IV push every 1-5 mins for continued SBP <90

- Monitor & reassess
- Provide early notification to the receiving hospital for suspected sepsis pts

Suspected Dissecting or Ruptured Abdominal Aortic Aneurysm (AAA)

Important Notes

- **Pts at high risk for AAA include**:
  - Men age >65
  - History of smoking
  - History of hypertension
  - Family/pt history of AAA
- **Hallmark symptoms of AAA often include one (1) or more of the following:**
  - Sudden onset of abdominal, flank, back, or groin pain
  - Pain described as “ripping” or “tearing”
  - Pain is typically severe, constant, & progressive
  - Sudden onset of weakness or syncope/near-syncope
  - Nausea &/or vomiting
  - Sense of impending doom/restlessness
- **One (1) or more of the following V/S &/or assessment findings may be present:**
  - Hypotension (late or rapidly developing)
  - Narrowing pulse pressure
  - Tachycardia (caution: pts with history of hypertension may be on beta blockers)
  - Weak or thready peripheral pulses
  - Asymmetric femoral pulses
  - Pulsatile abdominal mass (often absent or difficult to assess)

LALS

- Cardiac monitor/12-lead EKG **(AEMT II)**
- $EtCO_2$ monitoring **(AEMT II)**
- Establish two (2) large-bore IVs when possible
- Do not aggressively treat hypotension – allow for permissive hypotension
  - Target SBP 80-90 mmHg if pt has palpable pulses & is conscious
  - Administer 250 mL NS boluses only if signs of critical hypoperfusion (including: mental status changes, delayed capillary refill, bilateral absent femoral pulses)
- Prioritize pain management – refer to ‘Pain Management’ protocol (M-8 LALS)

- Monitor & reassess
- Provide early notification to the receiving hospital for suspected AAA pts

Sierra – Sacramento Valley EMS Agency Treatment Protocol	M-8 (LALS)
Pain Management	
Approval: Troy M. Falck, MD – Medical Director	Effective: 10/01/2026
Approval: John Poland – Executive Director	Next Review: 07/2029

- All pts with a report of pain shall be appropriately assessed and treatment decisions/interventions shall be adequately documented on the PCR.
- A variety of pharmacological and non-pharmacological interventions may be utilized to treat pain. Consider the pt's hemodynamic status, age, and previous medical history/medications when choosing analgesic interventions.
- Treatment goals should be directed at reducing pain to a tolerable level; pts may not experience complete pain relief.

BLS

- Assess V/S including pain scale & SpO_2, every 15 mins or as indicated by pt's clinical condition
- Assess/document pain score using standard 1-10 pain scale before and after each pain management intervention and at a minimum of every 15 mins
- O_2 at appropriate rate if SpO_2 <94% or pt is short of breath
- Utilize non-pharmacological pain management techniques as appropriate, including:
  - Place in position of comfort and provide verbal reassurance to minimize anxiety
  - Apply ice packs &/or splints for pain secondary to trauma
- **If pain is not effectively managed with non-pharmaceutical pain management techniques, review/consider the Fentanyl/Midazolam Contraindications & Administration Notes information below and proceed:**

***Acute Pain Protocol Definition:** Sudden, short-term pain usually caused by injury, illness, or a specific event.

***Acute Pain?**

NO →
- Contact base/modified base hosp. for pain management consultation
- May proceed with LALS treatment in the event of communication failure, if indicated by pt's condition

YES

LALS

- Continuous cardiac & $EtCO_2$ monitoring if administering fentanyl &/or midazolam
- IV/IO NS TKO if indicated by pt's clinical condition or necessary for medication administration
  - May bolus up to 1000 mL if indicated by pt's clinical condition

Fentanyl (AEMT II): 25-50 mcg slow IV or IM/IN – may repeat every 5 mins to max cumulative dose of 200 mcg

Pts with severe acute pain not adequately relieved by other methods/analgesics:

Midazolam (AEMT II): 1 mg slow IV – may repeat (x1) in 5 mins

Fentanyl/Midazolam Contraindications & Administration Notes

ⓘ Clinical judgement shall be utilized to determine appropriate doses within allowable protocol ranges
ⓘ Administer fentanyl/midazolam IV doses over 60 seconds
ⓘ Do not administer fentanyl/midazolam to pts with any of the following:
- SBP <100 - SpO2 <94% or RR <12 - ALOC or suspected moderate/severe TBI

ⓘ Consider reducing fentanyl doses to 25 mcg for pts ≥65 yo
ⓘ There is an increased risk of deeper level of sedation & airway/respiratory compromise when administering midazolam to pts receiving fentanyl

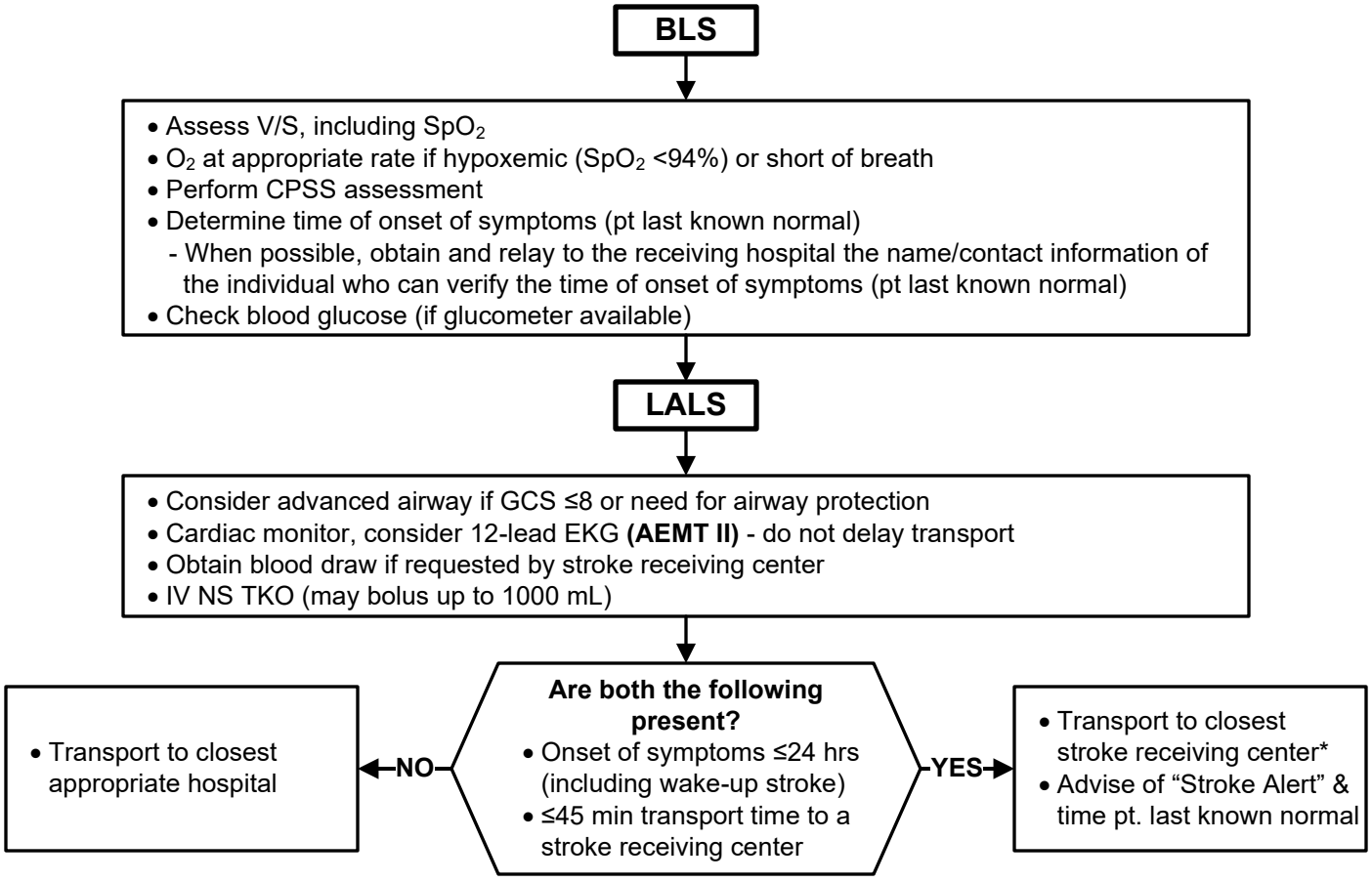
Sierra – Sacramento Valley EMS Agency Treatment Protocol	N-3 (LALS)
Suspected Stroke	
Approval: Troy M. Falck, MD – Medical Director	Effective: 10/01/2026
Approval: John Poland – Executive Director	Next Review: 07/2029

Suspect stroke for any of the following:

- New onset symptoms with abnormal CPSS
- New onset altered state (GCS <14) with unidentifiable etiology
- CPSS is normal, but pt/bystander report stroke symptoms within previous 24 hrs
- **Wake-up stroke definition:** Pt awakens with stroke symptoms that were not present prior to falling asleep

Cincinnati Prehospital Stroke Scale (CPSS) (Score 0-3)

Component	Normal Result (0 point ea.)	Abnormal Result (1 point ea.)
Facial Droop (Ask pt to show teeth or smile)	Both sides of face move equally	One side of face does not move as well as the other side
Arm Drift (Ask pt to close eyes & hold both arms out with palms up)	Both arms move the same, or both arms do not move	One arm does not move, or one arm drifts down compared with the other
Speech (Ask pt to say "you can't teach an old dog new tricks")	Pt uses correct words with no slurring	Pt slurs words, uses the wrong words, or is unable to speak



*If CPSS >1 & ≤45 min transport time to a Comprehensive or Thrombectomy Capable Stroke Center: Contact the closest stroke receiving center for destination consultation due to concern for Large Vessel Occlusion (LVO)

Sierra – Sacramento Valley EMS Agency Treatment Protocol	E-7 (LALS)
Hazardous Material Exposure	
Approval: Troy M. Falck, MD – Medical Director	Effective: 10/01/2026
Approval: John Poland – Executive Director	Next Review: 04/2029

Refer to S-SV EMS Hazardous Material Incidents Policy (836)

Important caveats for medical responders:

- EMS personnel shall not enter or provide treatment in the Contamination Reduction Zone (Warm Zone) or Exclusion Zone (Hot Zone) unless trained, equipped and authorized to do so.
- EMS personnel shall not use Haz Mat specific personal protective equipment (PPE), including self-contained breathing apparatus (SCBA), unless trained, fit tested and authorized to do so.
- Do not transport pts until they have been completely decontaminated. If transport personnel become contaminated, they shall immediately undergo decontamination.
- Do not delay treatment/transport of immediate pts contaminated with radioactive material.
- Early base/modified base hospital contact, and CHEMPACK activation when appropriate (S-SV EMS Nerve Agent Treatment Protocol E-8 LALS), will maximize assistance from necessary resources.
- Refer to Hazardous Materials Medical Management Reference as appropriate.

Information that must be obtained by EMS personnel on every hazardous materials incident:

- Number of pts.
- Material involved or DOT 4-digit placard #.
- Route(s) of exposure for each pt.
- Signs & symptoms for each pt.
- Decontamination procedure completed for each pt.
- Procedure utilized to determine effectiveness of decontamination procedure.
- Risk of secondary exposure to rescuers.
- PPE required to transport pt.

BLS

- Establish and secure airway as necessary
- O_2 at appropriate rate
- Contact base/modified base hospital for assistance in determining a decontamination/treatment plan
- After pt is fully decontaminated, cover with blankets and/or sheets as appropriate
- If eye exposure occurs, irrigate each exposed eye with NS – ensure contact lenses are removed

See pages 2 & 3 for additional treatment

Treatment Notes

- Precautions must be taken to prevent direct contact with secretions of a pt who has ingested organophosphates or carbamate pesticides.

LALS

- Cardiac Monitor **(AEMT II)**
- IV NS TKO in non-burned/non-contaminated extremity (may bolus up to 1000 mL)

Organophosphate/Carbamate

Atropine (AEMT II)
- 2 mg IV/IO if HR <60
- May repeat every 3 mins to HR >80
- No maximum dose

Refer to Nerve Agent Treatment Protocol (E-8 LALS) if additional treatment is necessary

Radiation Emergencies

- Pt care takes priority over radiological concerns - addressing contamination issues should not delay treatment of life-threatening injuries.
- Viable pts are a high priority - rapidly extricate, treat and transport pts who are most critical and likely to survive.
- It is highly unlikely that the levels of radioactivity associated with a contaminated pt would pose a significant health risk to care providers.
- Body substance isolation clothing (gloves, gowns, N-95 masks, protective eyewear, shoe protectors, and head cap) are recommended, including 2-3 pair of disposable gloves.
- Due to fetal sensitivity to radiation, assign pregnant staff to other duties.

Ambulance Preparation (to the extent possible)

- Avoid using internal and external compartments - work out of mobile kits as much as possible.
- Close all internal compartments prior to loading pt.
- Cover radio communication microphones with a rubber glove.
- Cover floor of ambulance with disposable papers or pads.

Radiation Exposure Haz Mat Pt

- If O_2 is warranted, use a non re-breather mask (if tolerated) to provide protection from inadvertent respiratory contamination hazards - an N95 mask is appropriate to protect pt from inadvertent respiratory contamination hazards when O_2 is not indicated
- Frequent glove changes will reduce the spread of contamination and should be considered prior to handling the pt or pt care adjuncts
- All medical procedures should be utilized to save an immediate pt

Limited or no field decontamination

- Initiate LALS care as necessary
- Keep pt wrapped (cocoon style) to minimize potential for contamination spread - only expose areas to assess and treat
- If necessary, cut and remove the pts clothing away from the body, being careful to avoid contamination to the unexposed skin - contain all removed clothing by placing in a sealable bag
- Continue to reassess/monitor vitals while transporting pt to the appropriate receiving facility
- Contact with pt may result in transfer of contamination - change gloves as necessary

Field decontamination performed

- Pts with non life-threatening injuries should have field decontamination prior to removal from the Exclusion (Hot) Zone
- Pts condition permits a more thorough radiological survey prior to continued care
- Conduct head to toe assessment as appropriate
- Initiate LALS care as necessary
- If pts clothing has not been removed during decontamination, keep pt wrapped (cocoon style) to minimize potential for contamination spread - only expose areas to assess and treat
- Contact with pt may result in transfer of contamination - change gloves as necessary

Sierra – Sacramento Valley EMS Agency Treatment Protocol	E-8 (LALS)
Nerve Agent Treatment	
Approval: Troy M. Falck, MD – Medical Director	Effective: 10/01/2026
Approval: John Poland – Executive Director	Next Review: 04/2029

Refer to S-SV EMS Hazardous Material Incidents Policy (836)

Important caveats for medical responders:

- EMS personnel shall not enter or provide treatment in the Contamination Reduction Zone (Warm Zone) or Exclusion Zone (Hot Zone) unless trained, equipped and authorized to do so.
- EMS personnel shall not use Haz Mat specific personal protective equipment (PPE), including self-contained breathing apparatus (SCBA), unless trained, fit tested and authorized to do so.
- Do not transport pts until they have been completely decontaminated. If transport personnel become contaminated, they shall immediately undergo decontamination.

Treatment notes:

- A base/modified base hospital physician order must be obtained prior to utilizing this protocol for pt treatment. Once an order is obtained, the entire protocol becomes a standing order that applies to all authorized/trained EMS personnel operating at the incident.
- Atropine (2mg) and pralidoxime chloride (600mg) auto-injectors included in MARK I/DuoDote nerve agent antidote kits shall only be used by authorized/trained EMS personnel.
- AEMT II personnel may administer atropine IM/IV in situations where auto-injector nerve agent antidote kits are not available.
- EMS personnel may self-administer nerve agent antidote kits when authorized/trained to do so.
- Adult auto-injectors are not to be used in children under 40 Kg.
- Nerve agent antidote medications are only given if the pt is showing signs & symptoms of nerve agent poisoning, they are not to be given prophylactically. A decrease in bronchospasm and respiratory secretions are the best indicators of a positive response to atropine and pralidoxime.

Signs/Symptoms of Nerve Agent Exposure (mild to severe)

1. Runny nose
2. Chest tightness
3. Difficulty breathing
4. Bronchospasm
5. Pinpoint pupils/blurred vision
6. Drooling
7. Excessive sweating
8. Nausea/vomiting
9. Abdominal cramps
10. Involuntary urination/defecation
11. Jerking/twitching/staggering
12. Headache
13. Drowsiness
14. Coma
15. Convulsions
16. Apnea

Nerve Agent Exposure Mnemonic (SLUDGEM)

Salivation
Lacrimation
Urination
Defecation
GI distress
Emesis
Miosis/muscle fasciculation

CHEMPACK

Description:

- The Centers for Disease Control and Prevention (CDC) established the CHEMPACK project resulting in the forward placement of sustainable caches of nerve agent antidotes.
- CHEMPACK caches have been placed at select sites throughout the S-SV EMS region and surrounding areas according to program requirements and effective transportation alternatives.
- EMS CHEMPACK caches contain enough antidote to treat approximately 454 patients. These caches contain primarily auto-injectors for rapid administration, but also contain some multi-dose vials for variable dosing (including pediatric patients) and prolonged treatment.
- Authorization to deploy CHEMPACK assets will be limited to an event that:

  1. Threatens the medical security of the community; and
  2. Places multiple lives at risk; and
  3. Is otherwise beyond local emergency response capabilities; and
  4. Will likely make the material medically necessary to save human life.

CHEMPACK requesting/deployment:

- A requestor is considered to be one of the following entities at the scene of a suspected nerve agent or organophosphate release with known, suspected, or potential contaminated, exposed, or affected patients:

  1. EMS prehospital personnel; or
  2. Incident Commander (IC); or
  3. Medical Group Supervisor (MGS).

- Potential requestors should be familiar with and follow their Operational Area (OA)/county specific CHEMPACK plans and procedures
- The S-SV EMS Duty Officer and applicable MHOAC Program(s) shall be notified as soon as possible in the event of a CHEMPACK request/deployment.

See page 3 for specific treatment

Nerve Agent Treatment

Treatment Notes

- Only treat pts located in the Exclusion Zone (Hot Zone) with IM auto-injectors

Nerve Agent Exposure Pt

- Remove all clothing
- Blot off the agent
- Flush area with large amounts of water
- Cover the affected area

Mild Signs/Symptoms	Moderate Signs/Symptoms	Severe Signs/Symptoms
Atropine • 2 mg IV or IM **(AEMT II)** **OR** • Administer one (1) atropine auto-injector IM • May repeat every 3-5 mins until symptoms improve	**Atropine** • 4 mg IV or IM **(AEMT II)** **OR** • Administer two (2) atropine auto-injectors IM • May repeat every 3-5 mins until symptoms improve	**Atropine** • 6 mg IV or IM **(AEMT II)** **OR** • Administer three (3) atropine auto-injectors IM • May repeat every 3-5 mins until symptoms improve
2-PAM • If symptoms do not improve in 5 mins, administer one (1) Pralidoxime chloride auto injector (600 mg) IM, one (1) time only	**2-PAM** • If symptoms do not improve in 5 mins, administer two (2) Pralidoxime chloride auto injectors (1200 mg) IM, one (1) time only	**2-PAM** • Administer three (3) Pralidoxime chloride auto-injectors (1800 mg) IM

- Establish vascular access (may administer up to 1000 ml NS if SBP <90)
- Cardiac Monitor **(AEMT II)**: if possible

If continued seizure activity, Go to Seizure Protocol N-2

Sierra – Sacramento Valley EMS Agency Treatment Protocol	T-1 (LALS)
General Trauma Management	
Approval: Troy M. Falck, MD – Medical Director	Effective: 10/01/2026
Approval: John Poland – Executive Director	Next Review: 07/2029

- **Limit on scene procedures for pts meeting Field Trauma Triage Criteria to:**
  - Pt assessment - Airway management - Hemorrhage control - Immobilization/splinting - SMR
- **Transport pts with known/apparent third trimester pregnancy in left-lateral position.**
- **Notify receiving hospital of a 'Trauma Alert' as soon as possible for pts meeting Field Trauma Triage Criteria.**

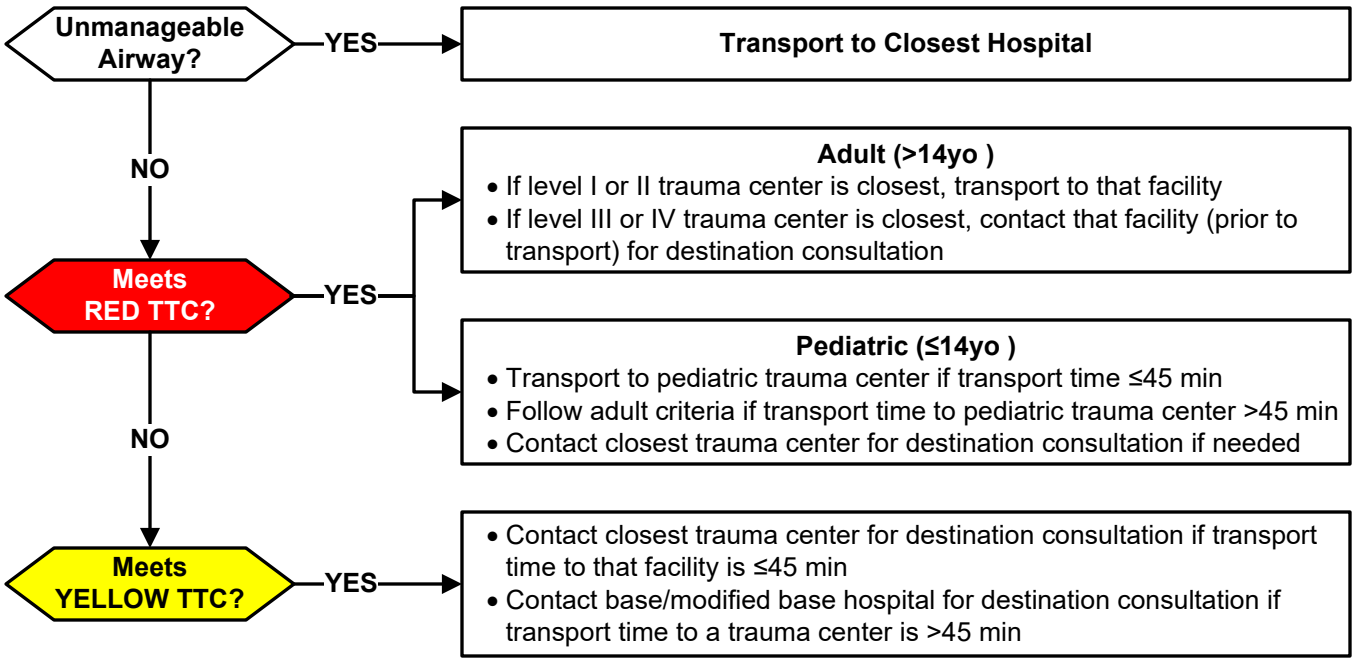
BLS

- Assess & support ABCs
- Assess V/S, including SpO_2
- O_2 at appropriate rate if hypoxemic (SpO_2 <94%) or short of breath
- Control hemorrhage & immobilize/splint injuries as needed
- Initiate spinal motion restriction (SMR) if indicated (see page 3)
- Maintain body temperature, keep warm

ALS

- Consider advanced airway if indicated
- Consider $EtCO_2$ monitoring if indicated (see protocol T-3 LALS or T-3P LALS)
- Consider application of a pelvic binder if indicated (see page 2)
- Cardiac monitor **(AEMT II)**
- Establish vascular access if indicated (see page 2)
- Consider pain management if indicated (see protocol M-8 LALS or M-8P LALS)

Field Trauma Triage Criteria (TTC) Pt Destination (see page 4 for TTC details)



Vascular Access

Need or anticipated need for fluid or medication administration?

NO → Vascular access not indicated

YES ↓

IV/IO – NS or LR (AEMT IO use authorized for pediatric pts only)

- Initiate vascular access on all pts meeting Field Trauma Triage Criteria
- Initiate second vascular access on adult pts presenting with hypotension (SBP <90 for pts <65 years of age, or SBP <100 for pts ≥65 years of age), or if thoracic/abdominal pain is present
- Fluid resuscitation guidelines (do not aggressively administer fluids – control volume resuscitation):
  - Adult pts:
    - For pts in hemorrhagic shock from trauma – target SBP 80-100
    - For pts in hemorrhagic shock with suspected moderate/severe TBI or spinal cord injury – target SBP >100
  - Pediatric pts:
    - Administer 20 mL/kg fluid boluses for signs of hypoperfusion/shock
    - Reassess hemodynamic parameters, respiratory status and lung sounds after each bolus
    - Titrate fluid boluses to age appropriate SBP (max cumulative: 60 mL/kg)

- Approved Commercial Pelvic Binders: Any commercial pelvic binder currently recommended by the Committee on Tactical Combat Casualty Care (CoTCCC).
- Utilization of a commercial pelvic binder is optional, and only approved for AEMT/paramedic personnel. ALS/LALS provider agencies must ensure that their personnel are appropriately trained on the application/use of the device, as misplacement of pelvic binders can significantly decrease the ability of the binder to reduce pelvic ring fractures.
- Physical exam findings which may indicate the presence of a pelvic ring fracture include, but are not limited to:
  - Crepitus when applying compression to the iliac crests
  - Perineal or genital swelling
  - Testicular/groin pain
  - Blood at the urethral meatus
  - Rectal, vaginal or perineal lacerations/bleeding
- When stabilizing a suspected pelvic ring fracture, care must be taken not to over-reduce the fracture. Over-reduction can be assessed by examining the position of the legs, greater trochanters and knees with the pt supine. The goal is to achieve normal anatomic position of the pelvis, so the lower legs should be symmetrical after stabilization.
- When clinically indicated and logistically feasible, the pelvic binder should be placed prior to extrication/movement.
- Pelvic binders should be placed directly to skin. Once applied, pelvic binders should not be removed.
- If possible, avoid log-rolling pts with a suspected pelvic fracture.

Mechanism of injury suggestive of a pelvic fracture?

NO → Pelvic binder not indicated

YES ↓

Does pt present with one or more of the following?

- Physical exam findings suggestive of a pelvic fracture
- Hemodynamic instability: HR >100 & SBP <90 (or SBP <100 in pts ≥65 years of age)

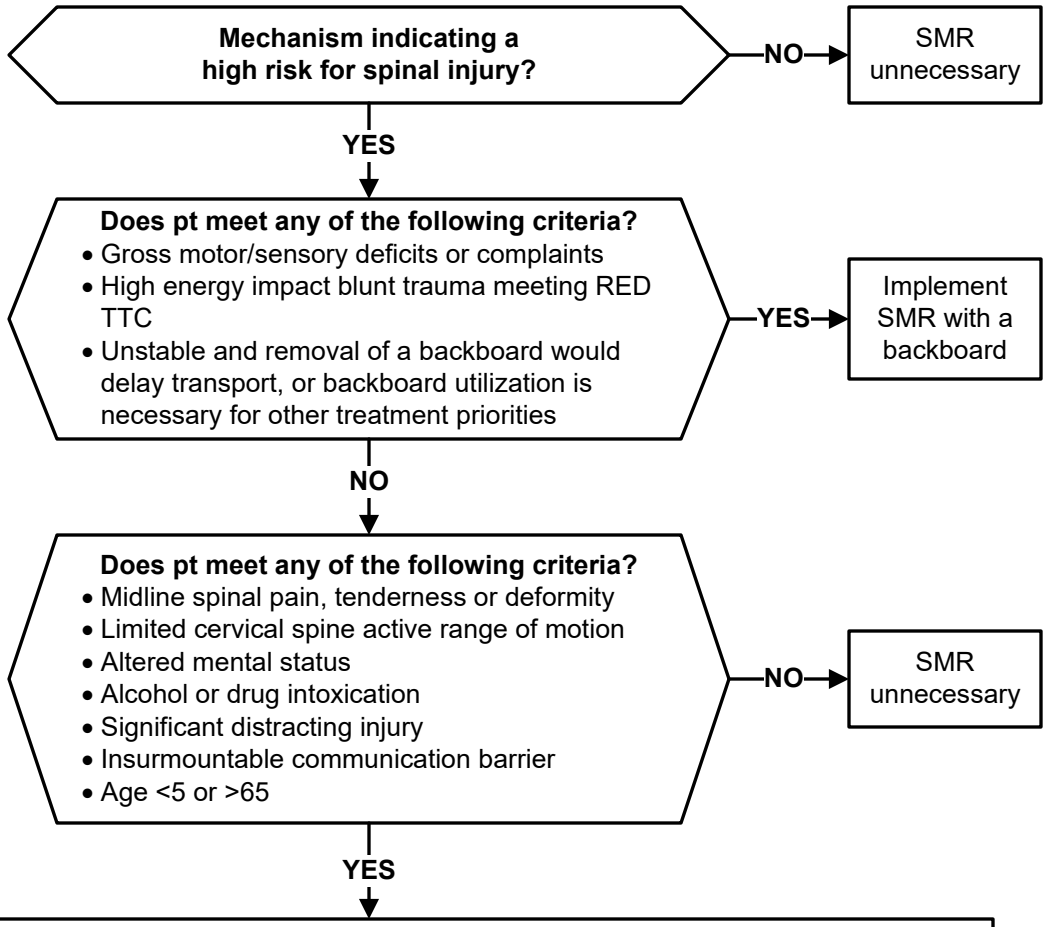
NO → Pelvic binder not indicated

YES ↓

Apply pelvic binder according to manufacturer instructions

Spinal Motion Restriction (SMR)

- A backboard shall not be utilized for pts with penetrating trauma to the head, neck or torso without evidence of spinal injury
- Helmet removal guidelines:
  - For pts who meet criteria for SMR with a backboard, football helmets should only be removed if they prevent adequate SMR or under the following circumstances:
    - If the helmet and chin strap fail to hold the head securely or prevent adequate airway control.
    - If the facemask cannot be removed.
  - Football helmets should be carefully removed to allow for appropriate SMR of pts who do not meet criteria for backboard utilization.
  - All other types of helmets (bicycle, motorcycle, etc.) should be carefully removed to allow for appropriate SMR.



Implement SMR without a backboard as follows:

- Alert & cooperative pts may be allowed to self-limit motion if appropriate with or without cervical collar
- Allow ambulatory pts to sit on the stretcher and then lie flat (no 'standing take-down")
- If necessary, move pt from the position found to the ambulance stretcher utilizing a device such as a KED, scoop stretcher, backboard, or if necessary, by having the pt stand and pivot to the stretcher – do not permit the pt to struggle to their feet from a seated or supine position
- Once on the ambulance stretcher, remove any hard backboard device & instruct the pt to lie still
- The head of the stretcher may be elevated 20-30^0 in a position of comfort
- Secure cross stretcher straps and over-the-shoulder belts firmly
- Pts with nausea &/or vomiting may by placed in the lateral recumbent position, maintaining the head in a neutral position using manual stabilization, padding, pillows, &/or the pt's arm

Field Trauma Triage Criteria (TTC)

RED TTC (High Risk for Serious Injury)

Injury Patterns	Mental Status/Vital Signs
• Penetrating injuries to head, neck, torso, &/or proximal extremities • Skull deformity, suspected skull fracture • Suspected spinal injury with new motor/sensory loss • Chest wall instability, deformity, or suspected flail chest • Suspected pelvic fracture • Suspected fracture of two or more proximal long bones in a pt of any age, or one or more proximal long bone fracture in a pt ≤14 or ≥65 years of age • Suspected open proximal long bone fracture • Crushed, degloved, mangled, or pulseless extremity • Amputation proximal to wrist or ankle • Continued, uncontrolled bleeding despite EMS hemorrhage control measures	**MENTAL STATUS** • **<65 years of age:** ○ GCS ≤13 • **≥65 years of age:** ○ GCS <15 (or decreased from baseline) with evidence/suspicion of a head strike **RESPIRATORY STATUS** • **All pt ages:** ○ RR <10 or >29 breaths/min ○ Resp. distress or need for resp. support ○ Room-air SpO_2 <90% **CIRCULATORY STATUS** **0-9 years of age:** • SBP <70mm Hg + (2 x age years) **10-64 years of age:** • SBP <90 mmHg **OR** HR>SBP **≥65 years of age:** • SBP <100 mmHG **OR** HR>SBP

YELLOW TTC (Moderate Risk for Serious Injury)

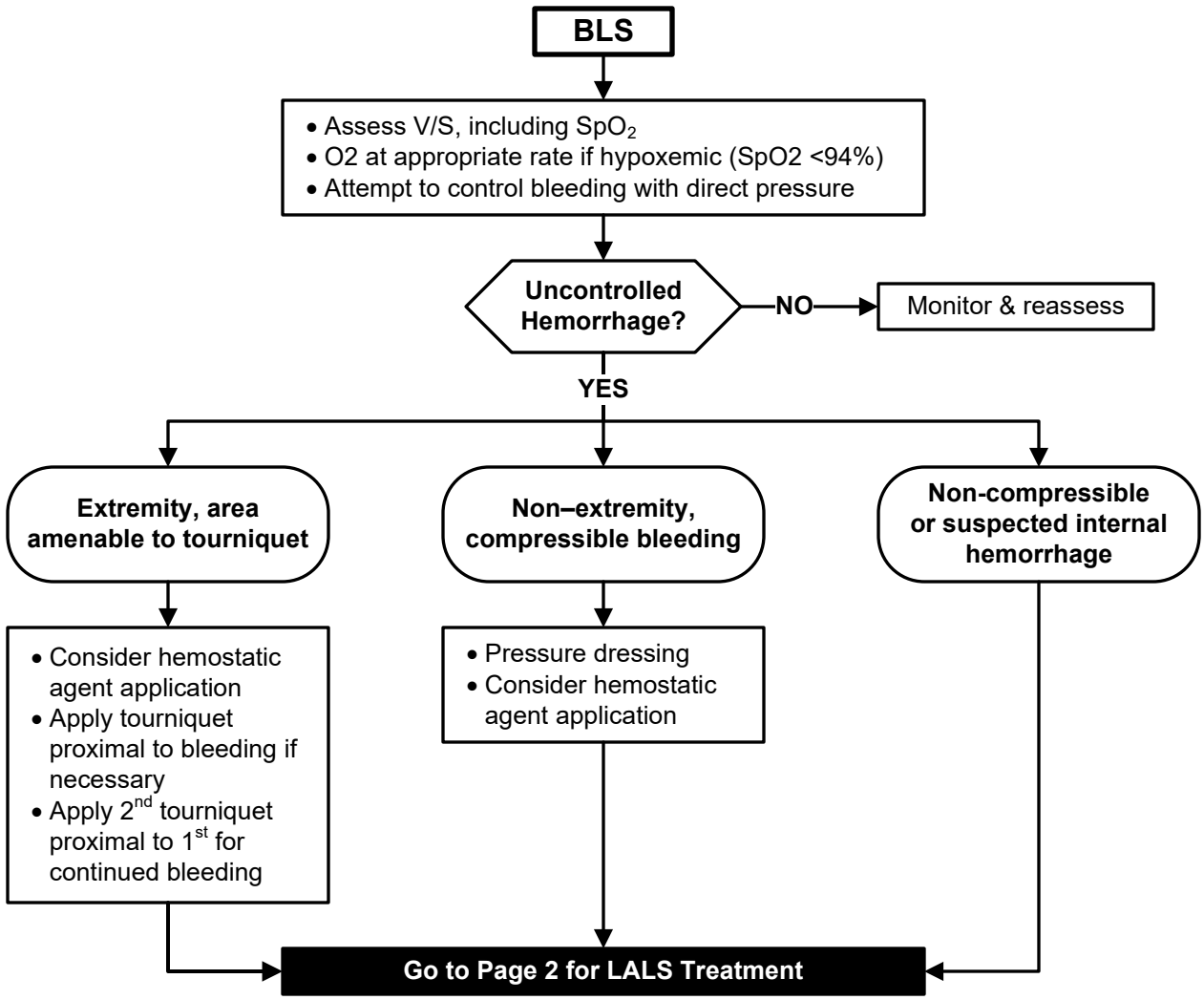
Mechanism of Injury	EMS Judgement
• High-Risk Auto Crash ○ Partial or complete ejection ○ Significant intrusion (including roof) - >12 inches occupant site; or - >18 inches any site; or - Need for extrication for entrapped pt ○ Death in passenger compartment ○ Child (0-9 years of age) unrestrained or in unsecured child safety seat ○ Vehicle telemetry data consistent with severe injury • Rider separated from transport vehicle with significant impact (motorcycle, ATV, horse, etc.) • Pedestrian/bicycle rider thrown, run over, or with significant impact • Fall from height >10 feet (all ages)	EMS personnel should consider the following risk factors, and contact the closest trauma center or base/modified base hospital for destination consultation (see page 1), if transport to a trauma center is believed to be in the pt's best interest: • Low-level falls in young children (≤5 years of age) or older adults (≥65 years of age) with significant head impact • Anticoagulant use • Suspicion of child abuse • Special, high-resource healthcare needs • Pregnancy >20 weeks • Burns in conjunction with trauma

Sierra – Sacramento Valley EMS Agency Treatment Protocol	T-4 (LALS)
Hemorrhage	
Approval: Troy M. Falck, MD – Medical Director	Effective: 10/01/2026
Approval: John Poland – Executive Director	Next Review: 07/2029

Tourniquet Devices:
- Any windlass style device included on the current Committee on Tactical Combat Casualty Care (CoTCCC) recommended Limb Tourniquets (non-pneumatic) list may be utilized by EMS personnel.
- Tourniquets applied by lay rescuers or other responders shall be evaluated for appropriateness and may be adjusted or removed if necessary – improvised tourniquets should be removed by prehospital personnel.
- If application is indicated & appropriate, a commercial tourniquet should not be loosened or removed by prehospital personnel unless time to definitive care will be greatly delayed (>2 hrs).

Hemostatic Dressings:
- Any hemostatic agent that is incorporated into gauze (no loose granules/particles) included on the current CoTCCC recommended Hemostatic Dressings list may be utilized by EMS personnel.

Other Important Notes:
- In trauma pts with suspected active hemorrhage, control life-threatening bleeding before routine airway or blood pressure augmenting interventions.
- Push-dose epinephrine is not routinely indicated for hemorrhagic shock & may worsen bleeding by increasing BP before hemorrhage control is achieved.



LALS

- Cardiac monitor, $EtCO_2$ monitoring **(AEMT II)**
- Establish vascular access
- Do not aggressively administer fluids – control volume resuscitation:
  - For pts in hemorrhagic shock from trauma – target SBP 80-100
  - For pts in hemorrhagic shock with suspected moderate/severe TBI or spinal cord injury – target SBP >100

Sierra – Sacramento Valley EMS Agency Treatment Protocol	T-5 (LALS)
Burns	
Approval: Troy M. Falck, MD – Medical Director	Effective: 10/01/2026
Approval: John Poland – Executive Director	Next Review: 04/2029

Important Notes

- 20CRW = 20 Minutes of Cool Running Water, which is the recommended initial treatment for burns involving <30% total body surface area (TBSA). It helps stop the burning process, reduce pain, limit tissue damage, & improve healing outcomes. Avoid cold water in small children to prevent hypothermia. Avoid ice.

BLS

Initial Actions:

- Stop the burn & remove clothing/jewelry (as applicable)
- Assess V/S, including SpO_2
- If signs/symptoms of inhalation injury (singed nasal hairs, hoarseness, carbonaceous sputum):
  - High-flow O_2
  - Manage airway as appropriate

Secondary Actions:

- For thermal burns <30% TBSA, & in the absence of life-threatening injuries, cool with 20CRW
- Estimate % TBSA burned & severity
- Cover burns with dry sterile dressings, burn sheets, or loose clear plastic wrap
- Maintain normothermia

LALS

- Cardiac monitoring **(AEMT II)**
- Consider $EtCO_2$ monitoring as indicated **(AEMT II)**
- Consider early advanced airway if evidence of inhalation injury or compromised respiratory effort
- If wheezes are present:
  - **Albuterol:** 5 mg in 6 mL NS via HHN, mask, or BVM
- Refer to applicable Pain Management Protocol (M-8 LALS/M-8P LALS) for pain management treatment
- **IV/IO – NS/LR (Note: IO authorized for pediatric pts only)**
  - Initial fluid resuscitation for pts with >9% partial thickness (2^{o}) or full thickness (3^{o}) burns:
    - ≤5 yo: 125 mL/hr
    - 6 - 13 yo: 250 mL/hr
    - ≥14 yo: 500 mL/hr
  - If pt is hypotensive, refer to applicable General Medical Treatment Protocol (M-6 LALS/M-6P LALS) for fluid resuscitation guidelines

SEE PAGE 2 FOR PT TRANSPORT DESTINATION DIRECTION & BURN CHART REFERENCE

Burns

PT TRANSPORT DESTINATION DIRECTION

Does pt meet Field Trauma Triage Criteria (Protocol T-1 LALS)?

YES → Refer to General Trauma Management Protocol T-1 (LALS) for destination direction

NO

Does pt meet the following criteria?

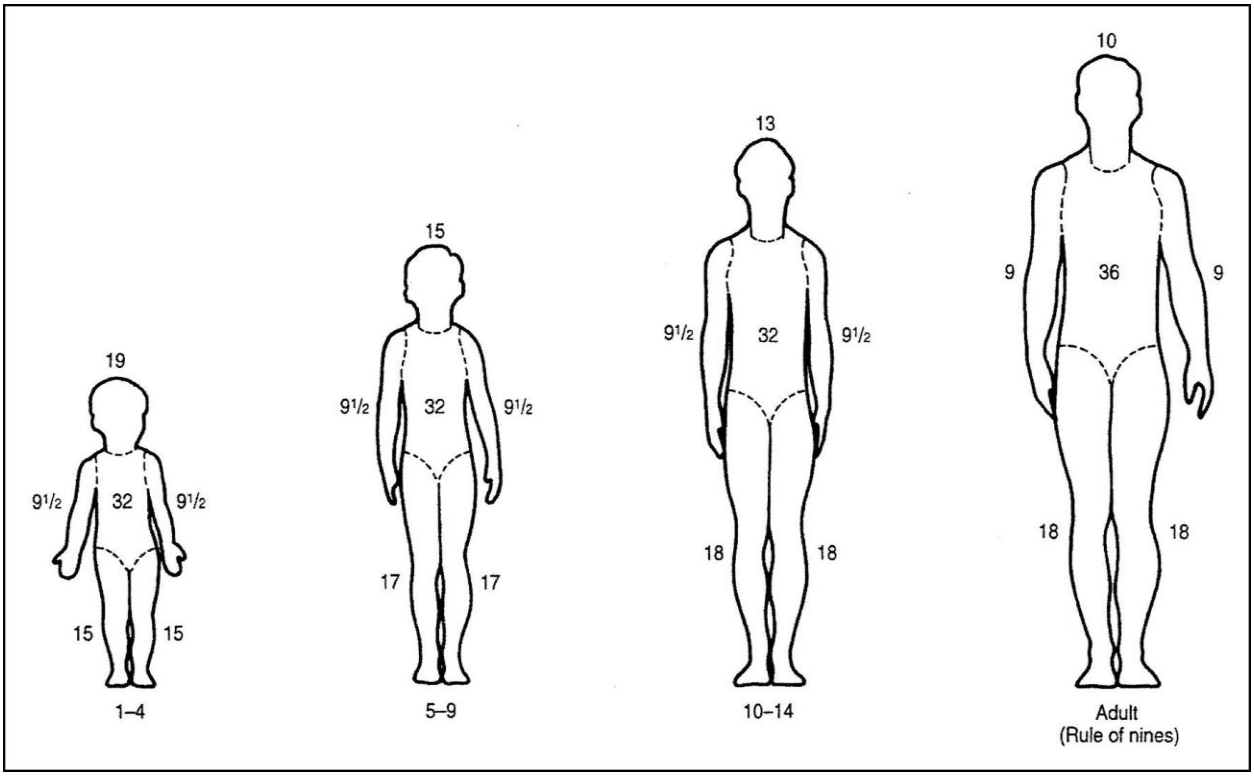
- Transport time ≤45 mins to a Burn Center, manageable airway, hemodynamically stable, & one (1) or more of the following:
  - >9% partial thickness (2°) burns
  - Any full thickness (3°) burns
  - Burns involving the face, hands, feet, genitalia, perineum, or joints
  - Inhalation injuries
  - Electrical, lightning, or chemical burns

YES → Transport to Burn Center

NO

Contact the closest base/modified base hospital for destination direction

BURN CHART



Sierra – Sacramento Valley EMS Agency Treatment Protocol	R-1P (LALS)
Pediatric Foreign Body Airway Obstruction (FBAO)	
Approval: Troy M. Falck, MD – Medical Director	Effective: 10/01/2026
Approval: John Poland – Executive Director	Next Review: 07/2029

- Signs/symptoms of FBAO: sudden onset of respiratory distress with coughing, gagging, stridor, or wheezing.
- Do not use tongue/jaw lift or perform blind finger sweep.
- Do not perform deep suctioning. Oropharyngeal suctioning should be performed while visualizing the FBAO.

Signs of severe obstruction:

- Poor air exchange - Silent cough - Increased breathing difficulty - Inability to speak or breathe - Cyanosis