INLAND COUNTIES EMERGENCY MEDICAL AGENCY
Serving
San Bernardino, Inyo & Mono Counties

Inland Counties Emergency Medical Agency

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Serving San Bernardino, Inyo, and Mono Counties
Daniel Muñoz, ICEMA Administrator
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DATE: December 23, 2025 **PHONE:** 909-388-5823

FROM: **DANIEL MUNOZ,** ICEMA Administrator **REZA VAEZAZIZI**, Medical Director

TO: EMS Providers - ALS, LALS, BLS, EMS Aircraft
Hospital CEOs, ED Directors, Nurse Managers and PLNs
EMS Training Institutions and Continuing Education Providers
Inyo, Mono and San Bernardino County EMCC Members
Medical Advisory Committee (MAC) Members

SUBJECT: **30-DAY NOTIFICATION FOR PUBLIC COMMENT**

Public comment for the policies and protocols listed below will occur at the next Medical Advisory Committee meeting on February 3, 2026, 1:00 pm, at the ICEMA office. Please review and bring suggestions for modification to the meeting.

ICEMA Reference Number and Name

4040	ST Elevation Myocardial Infarction Critical Care System Designation
4070	Stroke Critical Care System Designation
4110	Trauma Critical Care System Designation
7010	Standard Drug and Equipment List - BLS, LALS, ALS
8100	Ambulance Patient Offload Delay (APOD)
11010	Medication - Standard Orders
14120	Respiratory Emergencies - Pediatrics
14XXX	Allergic Reactions - Adult
XXXX	CQI Policy

Enclosure
c: File Copy

POLICIES/PROTOCOLS CHANGES EFFECTIVE JULY 1, 2026

Reference #	Name	Changes
DELETIONS		
NEW		
14XXX	Allergic Reactions - Adult	Standalone policy for allergic reactions in adults
XXXX	CQI Policy	Addition of New CQI Policy
CHANGES		
4040	ST Elevation Myocardial Infarction Critical Care System Designation	Addition of verbiage for APOD Delay Compliance
4070	Stroke Critical Care System Designation	Addition of verbiage for APOD Delay Compliance
4110	Trauma Critical Care System Designation	Addition of verbiage for APOD Delay Compliance
7010	Standard Drug and Equipment List - BLS,LALAS, ALS	Increase of 1:1000 epinephrine for Transporting ALS from 2 units to 5 units. *In reference to Neb Epi update to 14120 and 11010*
11010	Medication - Standard Orders	Inclusion of nebulized Epinephrine
14120	Respiratory Emergencies - Pediatrics	Inclusion of Nebulized Epinephrine

ALLERGIC REACTIONS - ADULT

I. FIELD ASSESSMENT/TREATMENT INDICATORS

- Signs and symptoms of an acute allergic reaction
- History of exposure to possible allergens

II. BLS INTERVENTION

- Recognize signs/symptoms of respiratory distress
- Reduce anxiety, assist patient to assume POC
- Oxygen administration as clinically indicated (humidified oxygen preferred)
- Assist patient with self-administration of prescribed Epinephrine device of available
- For anaphylaxis only, administer epinephrine auto-injector per ICEMA Reference #11010 – Medication – Standard Orders

III. LIMITED ALS (LALS) INERVENTIONS

- Preform activities identified in the BLS interventions
- Maintain airway with appropriate adjuncts, obtain oxygen saturation on room air if possible
- Albuterol per ICEMA Reference #11010 – Medication – Standard Orders
- If no response to Albuterol, consider Epinephrine per ICEMA Reference #11010 – Medication – Standard Orders
- For symptomatic hypotension with poor perfusion, consider fluid bolus of 300 ml NS and repeat as indicated
- Establish IV/IO access if indicated
- For anaphylactic shock (e.g. no palpable radial pulse and a depressed level of consciousness), administer Epinephrine per ICEMA Reference #11010 - Medication - Standard Orders.

IV. ASL INTERVENTIONS

- Perform activities identified in the BLS and LALS interventions
- Albuterol with Atrovent per ICEMA Reference #11010 – Medication – Standard Orders
- If no response to Albuterol and Atrovent, consider Epinephrine per ICEMA Reference #11010 – Medication – Standard Orders

- Administer Diphenhydramine per ICEMA Reference #11010 – Medication – Standard Orders
- If apneic and unable to ventilate, consider oral endotracheal intubation per ICEMA Reference #11020 – Procedure – Standard Orders
- Base Hospital may order additional medication dosages and additional fluid boluses.

V. REFERENCES

Number	Name
11010	Medication - Standard Orders
11020	Procedure - Standard Orders

CQI System and Atypical EMS Reporting

I. Purpose

To describe the continuous quality improvement (CQI) system, the responsibilities of the Inland Counties Emergency Medical Agency (ICEMA), the responsibilities of EMS providers and the clinical review process.

II. The Continuous Quality Improvement (CQI) System

The Inland Counties Emergency Medical Agency (ICEMA) has established and will continue to facilitate a system wide CQI program to monitor, review, evaluate and improve the delivery of prehospital care services. The program involves designated CQI Coordinators, and EMS Training Leads and includes, but is not limited to, the following activities:

- Prospective - designed to prevent potential problems.
- Concurrent - designed to identify problems or potential problems during patient care.
- Retrospective - designed to identify potential or known problems and prevent their recurrence.
- Reporting/Feedback - CQI activities will be reported to ICEMA in a manner to be jointly determined by system participants. As a result of CQI activities, changes in system design may be made.

Agencies will conduct an annual review of their CQI plan and submit all prospective updates to ICEMA for approval prior to implementation.

III. ICEMA Responsibilities

Prospective Responsibilities

- Comply with all pertinent rules, regulations, laws, and codes of Federal, State, and County applicable to emergency medical services.
- Coordinate prehospital CQI committee(s).
- Plan, implement, and evaluate the emergency medical services system including public and private agreements and operational procedures.
- Implement advanced life support systems
- Approve and monitor prehospital training programs.
- Certify/authorize/accredit prehospital personnel.
- Establish policies and procedures to ensure medical control which may include dispatch, basic life support, advanced life support, patient destination, patient care guidelines, and quality assurance guidelines.
- Facilitate implementation by system participants of required CQI plans.

- Design reports for monitoring identified problems and/or trends analysis.
- Approve standardized corrective action plans for identified deficiencies in prehospital and base hospital personnel.
- Conduct disaster planning and coordination.
- Monitor procedure(s) for informing all system participants of system changes.

Concurrent Responsibilities

- Monitor and evaluate system components. Site visits
- On call availability for Atypical EMS Events including but not limited to:
    - Mass Casualty Incidents (MCIs).
    - Ambulance direction / redirection.
    - Disasters and major incidents.

Retrospective Responsibilities

- Evaluate the process developed by system participants for retrospective analysis of prehospital care.
- Evaluate identified trends in the quality of prehospital care delivered in the system.
- Establish, monitor, and evaluate procedures for implementing the incident review process for prehospital emergency medical personnel.
- Collect, aggregate, and develop reports based on data submitted by providers and hospitals.

Reporting/Feedback

- Evaluate submitted data from system participants and make changes in system design as necessary.
- Provide feedback to system participants when applicable or when requested on CQI issues.
- Design prehospital research and efficacy studies regarding the prehospital use of any drug, device, or treatment procedure where applicable.
- Regularly publish reports developed from data submitted by providers and hospitals.

IV. Provider Responsibilities

Prospective Responsibilities

- Participation on committees as specified by the EMS Agency.
- Education

- Orientation to the EMS system.
- Field Care Audits.
- Participate in continuing education courses and the training of prehospital care providers.
- Offer educational opportunities based on problem identification, job scope and trend analysis.
- Establish procedure for informing all prehospital personnel of system changes.

- Evaluation - develop criteria for evaluation of individual prehospital personnel to include but not limited to:
  - Patient Care Report review/tape review or other documentation as available.
  - Direct observation.
  - Evaluation of new employees.
  - Routine annual performance evaluation.
  - Problem-oriented calls.
  - Design corrective action plans for individual EMS personnel deficiencies.

Concurrent Activities

- Establish a procedure for the evaluation of EMS providers utilizing performance standards through direct observation.
- Provide availability of field supervisors and/or CQI liaison personnel for consultation or assistance.

Retrospective Analysis

- Develop a process for retrospective analysis of field care, utilizing PCRs, audio tapes, or other applicable documentation, to include but not limited to:
  - Low Frequency – average less than 20 uses annually per EMT/paramedic.
  - High Risk Skills – Improper technique can cause harm to the patient.
  - Problem-oriented scenarios.
  - Those calls requested to be reviewed by ICEMA or other appropriate agencies.

- Specific audit topics established through ICEMA or CQILT.

- Develop performance standards for evaluating the quality of care delivered by field personnel through retrospective analysis.
- Participate in the incident review process.
- Comply with reporting and other CQI requirements as specified by ICEMA.
- Participate in prehospital research and efficacy studies requested by ICEMA or other CQI committees.

Reporting/Feedback

- Develop a process for identifying trends in the quality of field care.
    - Submit reports as specified by ICEMA.
    - Design and participate in educational offerings based on problem identification and trend analysis.
    - Make approved changes in internal policies and procedures to comply with ICEMA policies.

V. Atypical EMS Event Reporting

Purpose

- To establish a patient safety framework where reported events undergo thorough analysis to determine the root cause of errors and identify overarching system issues, prioritizing systemic improvement over individual blame.
- To establish clear reporting guidelines for EMS stakeholders, addressing potential threats to public health and safety, while also formally recognizing extraordinary performance in patient care through the ICEMA (Extraordinary Performance in Care) recognition program.

Atypical EMS Event Reporting Responsibilities

- System stakeholders, including individual clinicians, or representatives from healthcare facilities, hospitals, EMS provider agencies, and EMD communication centers, shall report all events to ICEMA meeting the criteria outlined in this policy.
    - Incident reports, investigation summaries, and other relevant supporting documents should be included as soon as possible after the submission of the EMS event report.
    - Anonymous reporting is available. Follow-up information and resolutions cannot be provided for anonymous submissions.
- ICEMA is responsible for the following:
    - Confirming receipt of each event, and assigning it to appropriate parties within the EMS agency depending upon the event nature:

- Clinical
- Exceptional Patient Care
- Operational

- Coordinating communication amongst provider agencies
  - Timely resolution for EMS events may be contingent upon the cooperation and availability of those involved.
- Reviewing information; collecting and analyzing data
- Identifying system issues for potential system-wide changes where appropriate
- Identifying cases of extraordinary care that meet criteria for formal recognition through the ICEMA EPIC pin program.
- Providing timely resolution, in writing, to the reporting party and closing out the EMS event report within 60 days of receipt.
- Archiving all EMS event reports for ICEMA record keeping.

VI. Atypical EMS Event Reporting Criteria

- Initial event reporting to ICEMA should occur within 5 business days from time of discovery. Atypical EMS events shall be reported using the online submission form **HERE** and shall include any of the following:
  - Non-compliance with treatments protocols or policies.
  - Care rendered or ordered outside scope of practice as defined by ICEMA policies and procedures.
  - Medication, or clinical treatment errors
  - Deviation from authorized list of supplies or equipment
  - Equipment failures
  - Unintentional patient harm or injury during care
  - Communication failures, e.g., radios, phones, technological challenges
  - Base hospital communication and/or guidance
  - Specialty systems of care destination errors, e.g., Stroke, STEMI, Cardiac Arrest, Trauma, Sexual Assault, Psychiatric receiving
  - Collision of any EMS vehicle that resulted in injury
- Events involving exceptional EMS care may be submitted for review and recognition, including consideration for the ICEMA EPIC Pin (Extraordinary Performance in Care), using the ICEMA Atypical event online submission form.

- ICEMA may initiate the Atypical EMS Event review process.

Supporting documents

Pre-Hospital reporting:

- Narrative(s) from all crew members involved
- Dispatch recordings, if applicable
- Dispatch log of events
- Remediation/education delivered (Record(s) of Conversation, summations, PIP, CEP, or equivalent)
- BH recording, if applicable to the review
- For EPIC Pin consideration, supporting documentation should clearly describe the actions, decision-making, or outcomes that exemplify extraordinary performance in care.

Hospital reporting

- BH voice recording(s) and log notes
- Hospital ePCR
- MICN or RN narrative(s)
- MD dictation, if applicable
- Documentation of remediation/education that was delivered (Record(s) of Conversation, summations, PIP,CEP or equivalent)
- ICEMA may request additional information as needed to complete the Atypical EMS Event review process.
- For EPIC Pin consideration, supporting documentation should clearly describe the actions, decision-making, or outcomes that exemplify extraordinary performance in care.

Counseling / Remediation

- Terms of counseling and/or remediation are decided on a case-by-case basis, only after the fact-finding phase has been completed.
- All Atypical EMS Events may be subject to peer-review by a subcommittee of the CQI Leadership Team (CQILT), including at least one (1) Prehospital Liaison Nurse.
- Provider agencies will develop disposition recommendations following final review of Atypical EMS Events. These recommendations will be forwarded to, or discussed with, the ICEMA EMS Specialist, Medical Director, or RN in the form of a Record of Conversation, summation, or clinical performance plan. The final decision will be made by the ICEMA Medical Director.

- The disposition(s) of Atypical EMS Events may include but not be limited to:
    - Case review and counseling with a focused quality assessment evaluation to monitor performance. The evaluation period will last for six (6) months.
    - Refresher didactic courses for remediation, which may include topic-oriented research, case scenarios, etc.
    - Supervised field care audit(s) and/or clinical time with a written outcome summary.
    - Development of an in-service training or written paper based on a specific topic, clinically reviewed.
    - ePCR review with a written outcome summary.
- Written educational plans will include but not be limited to:
    - Identification of concerns and associated educational objectives, as well as timelines for completion of each.
    - Consequences for failing to comply with or meet the identified educational objectives.
- Involved personnel will be required to sign an acknowledgement of the counseling, recommendations, and/or remediation plan they are expected to follow.

Failure to comply with, or successfully complete, counseling/remediation plan(s) may result in administrative or disciplinary action(s) against the provider's certification/ accreditation. Potential outcomes may include denial, probation, a temporary suspension order (TSO) and/or revocation of a provider's certification/accreditation/ authorization.

Loop Closure

Agencies initiating the Atypical EMS Event review will provide feedback via email, letter, and/or phone call to the involved parties after the review process is complete.

ST ELEVATION MYOCARDIAL INFARCTION CRITICAL CARE SYSTEM DESIGNATION

I. PURPOSE

To establish standards for the designation of an acute care hospital as a ST Elevation Myocardial Infarction (STEMI) Receiving Center.

II. POLICY

Hospital requirements for Inland Counties Emergency Medical Agency (ICEMA) STEMI Receiving Center designation:

- Must be a full service general acute care hospital approved by ICEMA as a 9-1-1 receiving hospital.
- Must have a licensure as a Cardiac Catheterization Laboratory (Cath Lab).
- Must be accredited by the American College of Cardiology (ACC) as a Chest Pain Center with Primary Percutaneous Coronary Intervention (PCI).
- Must have a Cardiovascular surgical services permit.
- Must be in compliance with all requirements listed in the California Code of Regulations, Title 22, Division 9, Chapter 7.1, STEMI Critical Care System Regulations.

III. STAFFING REQUIREMENTS

The hospital will have the following positions filled prior to becoming a STEMI Receiving Center:

- Medical Directors

  The hospital shall designate two (2) physicians as co-directors who are responsible for the medical oversight and ongoing performance of the STEMI Receiving Center program. One (1) physician shall be a board certified interventional cardiologist with active Percutaneous Coronary Intervention (PCI) privileges. The co-director shall be a board certified emergency medicine physician with active privileges to practice in the emergency department.

- STEMI Program Manager

  The hospital shall designate a qualified STEMI Program Manager. This individual is responsible for monitoring and evaluating the care of STEMI patients, the coordination of performance improvement and patient safety programs for the STEMI critical care system in conjunction with the STEMI medical director. The STEMI Program Manager must be trained or certified in critical care nursing or have at least two (2) years dedicated STEMI patient management experience.

- On-Call Physician Consultants and Staff

  On-call physicians consultants and staff must be promptly available within 30 minutes from notification. A daily roster must include the following on-call physician consultants and staff:

- Interventional Cardiologist with privileges in PCI procedures.
- Cardiovascular Surgeon with privileges in Coronary Artery Bypass Grafting.
- Cath Laboratory Team.
- Hemodynamic support device nurse or technologist.

- Registrar

  To ensure accurate and timely data submission, hospitals must have a dedicated registrar to submit required data elements.

  - Depending on the volume this position may be shared between specialty cares.
  - Failure to submit data as outlined above, may result in probation, suspension, fines or rescission of STEMI Receiving Center Designation.

IV. INTERNAL STEMI RECEIVING CENTER POLICIES

The STEMI Receiving Center must have:

- The capability to provide STEMI patient care 24 hours per day, seven (7) days per week.
- A single call alert/communication system for notification of incoming STEMI patients, available 24 hours per day, seven (7) days per week (i.e., in-house paging system).
- A process for the treatment and triage of simultaneously arriving STEMI patients.
- A fibrinolytic therapy protocol to be used only in unforeseen circumstances when PCI of a STEMI patient is not possible.
- Prompt acceptance of STEMI patients from STEMI Referral Hospitals that do not have PCI capability. To avoid prolonged door to intervention time the STEMI base hospitals are allowed to facilitate redirection of STEMI patients to nearby STEMI receiving centers physician to physician contact must be made when redirecting patients.
- Acknowledgement that STEMI patients may **only** be diverted during the times of Internal Disaster in accordance to ICEMA Reference #8050 - Requests for Ambulance Redirection and Hospital Diversion (San Bernardino County Only).

V. DATA COLLECTION

All required data elements shall be collected and entered in an ICEMA approved STEMI registry on a regular basis and submitted to ICEMA for review. All hospitals including STEMI receiving centers must participate in Cardiac Arrest Registry to Enhance Survival (CARES).

VI. CONTINUOUS QUALITY IMPROVEMENT (CQI) PROGRAM

STEMI Receiving Centers shall develop an on-going CQI program which monitors all aspect of treatment and management of suspected STEMI patients and identify areas needing improvement. The program must, at a minimum, monitor the following parameters:

- Morbidity and mortality related to procedural complications.

- Detail review of cases requiring emergent rescue Coronary Artery Bypass Graph (CABG).
- Tracking of door-to-dilation time and adherence to minimum performance standards set by ICEMA policy, contractual agreement, California Regulations, and the ACC.
- Detailed review of cases requiring redirection of EMS STEMI patients to other STEMI Receiving Centers as a result of over capacity and prolonged delay of door-to-intervention time.
- Active participation in each ICEMA STEMI CQI Committee and STEMI regional peer review process. This will include a review of selected medical records as determined by CQI indicators and presentation of details to peer review committee for adjudication.
- Provide Continuing Education (CE) opportunities twice per year for emergency medical services (EMS) field personnel in areas of 12-lead ECG acquisition and interpretation, as well as assessment and management of STEMI patients.
- Programs in place to promote public education efforts specific to cardiac care.

VII. PERFORMANCE STANDARD

Designated STEMI Receiving Centers must comply with the California Code of Regulations, Title 22, Division 9, Chapter 7.1, STEMI Critical Care System, ICEMA policies, and the ACC performance measures, that exist and may change in the future.

VIII. AMBULANCE PATIENT OFFLOAD DELAY

- All designated facilities shall maintain compliance with ICEMA APOD Policy 8100.
- APOD performance will be monitored by ICEMA and utilized as an evaluative component of the specialty care designation process.

IX. DESIGNATION

- The STEMI Receiving Center applicant shall submit a Letter of Intent to ICEMA, outlining the purpose of the application, proposed timeline, and intended goals.
- The STEMI Receiving Center applicant shall be designated after satisfactory review of written documentation, a potential site survey by ICEMA, and completion of a board approved agreement between the STEMI Receiving Center and ICEMA.
- Initial designation as a STEMI Receiving Center shall be in accordance with terms outlined in the agreement.
- Failure to comply with the approved agreement, or ICEMA policy may result in probation, suspension, fines or rescission of STEMI Receiving Center designation.

X. REFERENCES

Number	Name
8050	Requests for Ambulance Redirection and Hospital Diversion (San Bernardino County Only)

STROKE CRITICAL CARE SYSTEM DESIGNATION

I. PURPOSE

To establish standards for the designation of an acute care hospital as a Stroke Receiving Center.

II. POLICY

Hospital requirements for Inland Counties Emergency Medical Agency (ICEMA) Stroke Receiving Center designation:

- Must be a full service general acute care hospital approved by ICEMA as a 9-1-1 receiving hospital.
- Must have certification as an Acute Ready, Primary, Thrombectomy Capable, or Comprehensive Stroke Center by The Joint Commission (TJC), Healthcare Facilities Accreditation Program (HFAP), or Det Norske Veritas (DNV) and proof of re-certification every two (2) years.
- Must be in compliance with all requirements listed in the California Code of Regulations, Title 22, Division 9, Chapter 7.2, Stroke Critical Care System for the requested level of designation.

III. STAFFING REQUIREMENTS

The hospital will have the following positions filled for all levels of designation prior to becoming a Stroke Receiving Center.

- Medical Directors

  The hospital shall designate two (2) physicians with hospital privileges as co-directors who are responsible for the medical oversight and ongoing performance of the Stroke Receiving Center program. One (1) physician shall be board certified or board eligible by the American Board of Medical Specialties or American Osteopathic Association, neurology or neurosurgery board. The co-director shall be a board certified or board eligible emergency medicine physician.

- Stroke Program Manager

  The hospital shall designate a qualified Stroke Program Manager. This individual is responsible for monitoring and evaluating the care of Stroke patients, the coordination of performance improvement and patient safety programs for the Stroke critical care system in conjunction with the Stroke medical director. The Stroke Program Manager must be trained or certified in critical care nursing or have at least two (2) years dedicated to Stroke patient management experience.

- On-Call Physicians Specialists/Consultants

  On-Call physicians consultants and staff must be promptly available within 30 minutes from notification. A daily roster must include the following on-call physician consultants and staff:

  - Radiologist experienced in neuroradiologic interpretations.

- On-call Neurologist and /or tele-neurology services available twenty-four (24) hours per day; seven (7) days per week.

- Registrar

  To ensure accurate and timely data submission, hospitals must have a dedicated registrar to submit required data elements.

  - Depending on the volume, this position may be shared between specialty cares.

  - Failure to submit data as outline above, may result in probation, suspension, fines or rescission of Stroke Receiving Center Designation.

IV. INTERNAL STROKE RECEIVING CENTER POLICIES

All levels of designation must have internal policies for the following:

- Stroke Team alert response policy upon EMS notification of a “Stroke Alert”.
- Rapid assessment of stroke patient by Emergency and Neurology Teams.
- Prioritization of ancillary services including laboratory and pharmacy with notification of “Stroke Alert”.
- Arrangement for priority bed availability in Acute Stroke Unit or Intensive Care Unit (ICU) for “Stroke Alert” patients.
- A process for the treatment and triage of simultaneously arriving stroke patients.
- If neurosurgical services are not available in-house, the Stroke Receiving Center must have a rapid transfer agreement in place with a hospital that provides this service. Stroke Receiving Centers must promptly accept rapid transfer requests. Additionally, the Stroke Receiving Center must have a rapid transport agreement in place with an ICEMA approved EMS transport provider for that Exclusive Operation Area (EOA).
- Acknowledgement that stroke patients may **only** be diverted during the times of Internal Disaster in accordance to ICEMA Reference #8050 - Requests for Ambulance Redirection and Hospital Diversion (San Bernardino County Only).
- Emergent thrombolytic and tele-neurology protocol to be used by Neurology, Emergency, Pharmacy and Critical Care Teams.
- An alert/communication system for notification of incoming stroke patients, available 24 hours per day, seven (7) days per week (i.e., in-house paging system).

V. DATA COLLECTION

Designated Stroke Receiving Centers shall report all required data as determined by ICEMA and the Stroke Committee.

VI. CONTINUOUS QUALITY IMPROVEMENT (CQI) PROGRAM

Stroke Receiving Centers shall develop an on-going CQI program which monitors all aspects of treatment and management of stroke patients and identify areas needing improvement. The program must, at a minimum, monitor the following:

- Morbidity and mortality related to procedural complications.
- Review of all transfers.
- Tracking door-to-intervention times and adherence to minimum performance standards.
- Active participation in ICEMA Stroke CQI Committee and Stroke regional peer review process. This will include a review of selected medical records as determined by CQI indicators and presentation of details to peer review committee for adjudication.
- Provide Continuing Education (CE) opportunities twice per year for referral hospitals and EMS field personnel in areas of pathophysiology, assessment, triage and management for stroke patients and report annually to ICEMA.
- Lead public stroke education and illness prevention efforts and report annually to ICEMA.

VII. PERFORMANCE STANDARDS

Designated Stroke Receiving Centers must comply with the California Code of Regulations, Title 22, Division 9, Chapter 7.2, Stroke Critical Care System, ICEMA policies, and the Performance Measures set forth by the accrediting agencies identified in Section II, that exist and may change in the future.

VIII. AMBULANCE

- All designated facilities shall maintain compliance with ICEMA APOD Policy 8100.
- APOD performance will be monitored by ICEMA and utilized as an evaluative component of the specialty care designation process.

IX. DESIGNATION LEVELS

- The Stroke Receiving Center applicant shall submit a Letter of Intent to ICEMA, outlining the purpose of the application, proposed timeline, and intended goals.
- **Acute Stroke Ready Hospital**: A hospital able to provide the minimum level of critical care services for stroke patients in the emergency department, and are paired with one or more hospitals with a higher level of stroke services.
- **Primary Stroke Center:** A hospital that treats acute stroke patients, and identifies patients who may benefit from transfer to a higher level of care when clinically warranted.
- **Thrombectomy-Capable Stroke Center:** A primary stroke center with the availability to perform mechanical thrombectomy for the ischemic stroke patient when clinically warranted.
- **Comprehensive Stroke Center:** A hospital with specific abilities to receive diagnose and treat all stroke cases and provide the highest level of care for stroke patients.

Acute Stroke Ready Hospitals

To be considered for Acute Stroke Ready hospital designation, multiple variables will be taken into consideration and will be determined by the ICEMA Medical Director:

- What are the current needs of the community?
- How will this impact the overall care in the system?
- What is the location of the hospital, is there a prolonged distance to a primary thrombectomy or comprehensive stroke center?

The hospital must meet the following minimum criteria:

- Written transfer agreements.
- Written policies and procedures for emergent stroke services to include written protocols and standardized orders.
- A data-driven, continuous quality improvement process.
- Neuro imaging services (CT or MRI) with interpretation of imaging available 24 hours a day, seven (7) days a week, and 365 days a year.
- Laboratory services to include blood testing, electrocardiography, and x-ray services 24 hours a day, seven (7) days a week and 365 days a year.
- Provide IV thrombolytic treatment.
- A clinical Stroke Team available to see patient (in person or by tele-health) within 20 minutes of arrival to ED.

Primary Stroke Centers

- Stroke diagnosis and treatment capacity 24 hours a day, seven (7) days a week.
- A clinical Stroke Team available to see in person or via telehealth, a patient identified as a potential stroke patient within 15 minutes following patient's arrival.
- Neuro imaging services capability that is available 24 hours a day, seven (7) days a week.
- Two (2) CT scanners and one (1) MRI scanner.
- Neuro imaging initiated within 25 minutes following arrival to ED.
- Laboratory services that are available 24 hours a day, seven (7) days a week.

Thrombectomy Capable Centers (in addition to Primary Stroke Center Requirements)

- The ability to perform mechanical thrombectomy for the treatment of ischemic stroke 24 hours a day, seven (7) days a week.
- Neuro interventionalist.

- Neuro radiologist.
- The ability to perform advanced imaging 24 hours a day, seven (7) days a week.

Comprehensive Centers (in addition to Primary and Thrombectomy Center Requirements)

- Neuro-endovascular diagnostic and therapeutic procedures available 24 hours a day, seven (7) days a week.
- Advanced imaging available 24 hours a day, seven (7) days a week.
- A stroke patient research program.
- A neurosurgical team capable of assessing and treating complex stroke and stroke-like syndromes.
- A written call schedule for attending neurointerventionalist, neurologist, or neurosurgeon providing availability 24 hours a day, seven (7) days a week.

X. DESIGNATION

ICEMA designation as an Acute Stroke Ready Hospital, Primary, Thrombectomy Capable, or Comprehensive Stroke Center will be determined based on need and volume in the community. Designation will not be determined by current accreditation only; however, Stroke Receiving Centers must be accredited at least at an equivalent designation level being requested.

- The Stroke Receiving Center applicant shall be designated by ICEMA after satisfactory review of written documentation, a potential site survey and completion of an agreement between the hospital and ICEMA.
- Documentation of current certification as an Acute Ready Hospital, Primary Stroke Center Thrombectomy Capable Stroke Center or Comprehensive Stroke Center by TJC, HFAP or DNV.
- Initial designation as a Primary, Thrombectomy, Capable or Comprehensive Stoke Center shall be in accordance with terms outlined in the agreement.
- Failure to comply with the approved agreement, or ICEMA policy may result in probation, suspension, fines or rescission of the Stroke Receiving Center designation.

XI. REFERENCE

Number	Name
8050	Requests for Ambulance Redirection and Hospital Diversion (San Bernardino County Only)

TRAUMA CRITICAL CARE SYSTEM DESIGNATION

I. PURPOSE

To establish standards for the designation of an acute care hospital as a Trauma Receiving Center. These standards were developed to ensure patients who access the 9-1-1 system, and meet the defined Trauma triage criteria, are transported to a Trauma Receiving Center.

II. POLICY/PROCEDURE

Hospital requirements for Inland Counties Emergency Medical Agency (ICEMA) Trauma Receiving Center designation:

- Must be a full service general acute care hospital approved by ICEMA as a receiving hospital.
- Must have basic or comprehensive emergency services with special permits.
- Must be verified by the American College of Surgeons (ACS) as a Level I - III Trauma Receiving Center. Level IV Trauma Receiving Centers must remain in compliance with the current ACS standards.
- Must be in compliance with all requirements listed in California Code of Regulations, Title 22, Division 9, Chapter 7 - Trauma Critical Care System Regulations.
    - ICEMA may issue a provisional trauma designation to facilities with a confirmed ACS verification date within 24 months of application submission, subject to Title 22 compliance and an ICEMA site survey.

III. STAFFING REQUIREMENTS

The hospital will have the following positions filled prior to becoming a Trauma Receiving Center:

- Trauma Medical Directors

  A qualified board-certified physician by the American Board of Medical Specialties (ABMS) as defined by the local EMS agency (LEMSA) and designated by the hospital that is responsible for the Trauma Receiving Center program, performance improvement, and patient safety programs related to a trauma critical care system.

- Emergency Department Trauma Representative

  A qualified board certified emergency medicine physician with active privileges to practice in the emergency department that will participate in the Trauma Receiving Center program.

- Trauma Program Manager

  The hospital shall designate a Trauma Program Manager who is responsible for monitoring and evaluating trauma patients. This includes participation in performance improvement and patient safety programs related to a trauma critical care system. The Trauma Program Manager must be trained or certified in critical care nursing and have

continuing education in trauma physiology or at least has two (2) years dedicated trauma patient management experience.

- Trauma Team

  A multidisciplinary team responsible for the initial resuscitation and management of the trauma patient.

- On-Call Physician Consultants and Staff

  On-call physicians consultants and staff must be promptly available when notified. A daily roster must include the following on-call physician consultants and staff:

  - Trauma Service: Must be promptly available, maximum trauma response time 15 minutes. Trauma surgeons must have privileges in general surgery and must be dedicated to a single Trauma Receiving Center while on duty (Level I and II).

  - Neurosurgery Service: Must be promptly available for all traumatic brain injury (TBI) and spinal cord injury patients and must be present and respond within 30 minutes (Level I and II).

  - Orthopedic Service: Must be promptly available for consultation within 30 minutes when requested by the trauma team leader (Level I and II).

  - Anesthesiology Services: Must be available within 30 minutes for emergency operations.

  - Radiology Services: Qualified radiologists must be available within 30 minutes in person or by tele radiology for the interpretation of radiographs.

  - An operating room must be adequately staffed and available within 15 minutes (Level I and II).

- Registrar

  A registrar dedicated to the registry must be available to process the data capturing the ICEMA data sets and in compliance with the ACS registrar standards listed in the "Resources for Optimal Care of the Injured Patient" current manual (Level I and II).

IV. INTERNAL HOSPITAL POLICIES

- The hospital must have capabilities to provide trauma patient care 24 hours per day, seven (7) days per week, 365 days per year.

- A single call alert/communication system for notification of incoming trauma patients, available 24 hours per day, seven (7) days per week (i.e., in-house paging system).

- The internal hospital policy/process/guidelines shall include:

  - A process for the treatment and triage of simultaneously arriving trauma patients.

  - A process for activation of trauma patients.

  - Prompt acceptance of trauma patients from referral hospitals per ICEMA Reference #9010 - Continuation of Care Policy.

- Acknowledgement that trauma patients may **only** be diverted during the times of Internal Disaster in accordance to ICEMA Reference #8050 - Requests for Ambulance Redirection and Hospital Diversion (San Bernardino County Only).
- A written notification describing the event must be submitted to ICEMA within 24 hours.
- A Level IV Trauma Receiving Center must have a written transfer agreement with a Level I or II Trauma Receiving Center, Level I or II Pediatric Trauma Receiving Center, or other specialty care centers, for immediate transfer of those patients for whom the most appropriate medical care requires additional resources.

V. DATA COLLECTION

All required data elements shall be collected and entered in an ICEMA approved Trauma registry on a quarterly basis and submitted to ICEMA for review. Trauma registry data must be collected in compliance with the National Trauma Data Standards and submitted to the National Trauma Data Bank (NTDB).

VI. CONTINUOUS QUALITY IMPROVEMENT (CQI) PROGRAM

- Trauma Receiving Centers shall develop an on-going CQI program which monitors all aspect of treatment and management of trauma patients and identify areas needing improvement. The program must, at a minimum, monitor the following parameters:
  - Mortality with opportunity for improvement.
  - Mortality without opportunity for improvement.
  - Unanticipated mortality with opportunity for improvement.
  - Rates of under-triage and over-triage.
- Active participation in quarterly regional Trauma Audit Committee and the regional Trauma peer review process. This will include a review of selected medical records as determined by CQI indicators and a presentation of details to peer review committee for adjudication.
- Provide continuing education (CE) opportunities twice per year for emergency medical services (EMS) field personnel in assessment and management of trauma patients.
- Programs in place to promote public education efforts specific to trauma care.

VII. PERFORMANCE STANDARD

Compliance with all California State Regulations and the ACS verification services performance standards.

VIII. AMBULANCE PATIENT OFFLOAD DELAY

- All designated facilities shall maintain compliance with ICEMA APOD Policy 8100.
- APOD performance will be monitored by ICEMA and utilized as an evaluative component of the specialty care designation process.

IX. DESIGNATION

- The Trauma Receiving Center applicant shall submit a Letter of Intent to ICEMA, outlining the purpose of the application, proposed timeline, and intended goals.

- ICEMA designation as a Level I - IV Trauma Receiving Center will be based on an evaluation of need and volume in the community. Designation will not be determined by current compliance with Title 22 and compliance/verification of ACS alone; however, the Level I, II, and III Trauma Receiving Centers must be verified at least at an equivalent designation level that is being requested.

- The Trauma Receiving Center applicant shall be designated after satisfactory review of written documentation, a potential site survey by ICEMA, and completion of a board approved contractual agreement between the hospital and ICEMA.

- Documentation of current hospital accreditation by the ACS verification services as a Level I - III Trauma Receiving Center.

  - Level IV Trauma Receiving Centers must comply with all ACS Level IV standards.

- Initial designation as a Trauma Receiving Center shall be in accordance with terms outlined in the contract agreement.

- Failure to comply with the ICEMA policy, approved contract agreement, or the criteria and performance standards outlined in this policy, may result in probation, suspension fines or rescission of Trauma Receiving Center designation.

X. REFERENCES

Number	Name
8050	Requests for Ambulance Redirection and Hospital Diversion (San Bernardino County Only)
9010	Continuation of Care (San Bernardino County Only)

STANDARD DRUG AND EQUIPMENT LIST - BLS/LALS/ALS

Each ambulance and first responder unit shall be equipped with the following functional equipment and supplies. **This list represents mandatory items with minimum quantities** excluding narcotics, which must be kept within the range indicated. All expiration dates must be current. All packaging of drugs or equipment must be intact. No open products or torn packaging may be used.

All ALS (transport and non-transport) and BLS transport vehicles shall be inspected annually.

MEDICATIONS/SOLUTIONS

Exchanged Medications/Solutions	BLS	LALS	ALS Non-Transport	ALS Transport
Acetaminophen (Tylenol) 1 gm IV			1	1
Adenosine (Adenocard) 6 mg			1	1
Adenosine (Adenocard) 12 mg			2	2
Albuterol Aerosolized Solution (Proventil) - unit dose 2.5 mg		4 doses	4 doses	4 doses
Aspirin, chewable - 81 mg tablet		2	1 bottle	1 bottle
Atropine 1 mg preload			2	2
Calcium Chloride 1 gm preload			1	1
Dextrose 10% in 250 ml Water (D10W)		2	2	2
Diphenhydramine (Benadryl) 50 mg		2	1	1
Epinephrine 1 mg/ml 1 mg		2	5	5
Epinephrine 0.1 mg/ml 1 mg preload			4	4
Glucagon 1 mg		1	1	1
Glucose paste	1 tube	1 tube	1 tube	1 tube
Ipratropium Bromide Inhalation Solution (Atrovent) unit dose 0.5 mg			4	4
Irrigating Saline and/or Sterile Water (1000 cc)	2	1	1	2
Lidocaine 2% 100 mg			3	3
Magnesium Sulfate 10 gm			1	1
Naloxone (Narcan) 2 mg preload	2	2	2	2
Nitroglycerine (NTG) - Spray 0.4 mg metered dose and/or tablets (tablets to be discarded 90 days after opening)		2	1	2
Nitroglycerine Paste 2% - 1 gm packets, **or** Nitroglycerine Paste 2% - 30 gm tube, **or** Nitroglycerine Paste 2% - 60 gm tube				2 1 1
Normal Saline for Injection (10 cc)		2	2	2
Normal Saline 100 cc			1	2
Normal Saline 250 cc			1	1
Normal Saline 500 ml and/or 1000 ml		2000 ml	3000 ml	6000 ml
Ondansetron (Zofran) 4 mg Oral Disintegrating Tablets (ODT)			4	4
Ondansetron (Zofran) 4 mg IM/IV			4	4
Sodium Bicarbonate 50 mEq preload			2	2
Tranexamic Acid (TXA) 1 gm			4	4

Non-Exchange Controlled Substance Medications MUST BE DOUBLE LOCKED	**BLS**	**LALS**	**ALS Non-Transport**	**ALS Transport**
Buprenorphine-Naloxone (Suboxone) SL			48 mg *optional*	48 mg optional
Diazepam *(optional alternative when midazolam is commercially unavailable)*			40-80 mg	40-80 mg
Fentanyl			200-400 mcg	200-400 mcg
Midazolam			20-40 mg	20-40 mg
Ketamine			120-1000 mg	120-1000 mg

AIRWAY/SUCTION EQUIPMENT

Exchanged Airway/Suction Equipment	**BLS**	**LALS**	**ALS Non-Transport**	**ALS Transport**
CPAP circuits - all manufacture's available sizes			1 each	2 each
End-tidal CO2 device - Pediatric and Adult (may be integrated into bag)			1 each	1 each
Endotracheal Tubes cuffed - 6.0 and/or 6.5, 7.0 and/or 7.5 and 8.0 and/or 8.5 with stylet			2 each	2 each
ET Tube holders - adult		1 each	1 each	2 each
i-gel - Size 1,1.5,2,2.5, 3, 4, and 5			1 each	2 each
Mask - Adult & Pediatric non-rebreather oxygen mask	2 each	2 each	2 each	2 each
Mask - Infant oxygen Mask	1	1	1	1
Nasal cannulas - pediatric and adult	2 each	2 each	2 each	2 each
Naso/Orogastric feeding tubes - 5fr or 6fr, and 8fr			1 each	1 each
Naso/Orogastric tubes - 10fr or 12fr, 14fr, 16fr or 18fr			1 each	1 each
Nasopharyngeal Airways - (infant, child, and adult)	1 each	1 each	1 each	1 each
Needle Cricothyrotomy Device - Pediatric and adult or Needles for procedure 10, 12, 14 and/or 16 gauge			1 each 2 each	1 each 2 each
14 gauge 3.25 inch and 18 gauge 1.75-2 inch needles for Needle Thoracostomy			2 each	1
Oropharyngeal Airways - (infant, child, and adult)	1 each	1 each	1 each	1 each
Rigid tonsil tip suction	1		1	1
Small volume nebulizer with universal cuff adaptor		2	2	2
Suction Canister	1		1	1
Suction catheters - 6fr, 8fr or 10fr, 12fr or 14fr	1 each		1 each	1 each
Ventilation Bags - Infant 250 ml Pediatric 500 ml (or equivalent) Adult	 1 1 1	 1 1 1	 1 1 1	 1 1 1
Water soluble lubricating jelly		1	1	1

Non-Exchange Airway/Suction Equipment	BLS	LALS	ALS Non-Transport	ALS Transport
Ambulance oxygen source -10 L / min for 20 minutes	1			1
CPAP - (must be capable of titrating pressure between 2 and 15 cm H_2O)			1	1
Flashlight/penlight	1	1	1	1
Laryngoscope blades - #0, #1, #2, #3, #4 curved and/or straight			1 each	1 each
Laryngoscope handle with batteries - or 2 disposable handles			1	1
Magill Forceps - Pediatric and Adult			1 each	1 each
Manual powered suction device		1		
Portable oxygen with regulator - 10 L /min for 20 minutes	1	1	1	1
Portable suction device (battery operated)	1		1	1
Pulse Oximetry device	(SEE OPTIONAL EQUIPMENT SECTION, PG. 5)	1	1	1
Stethoscope	1	1	1	1
Wall mount suction device	1 (BLS TRANSPORT ONLY)			1

IV/NEEDLES/SYRINGES/MONITORING EQUIPMENT

Exchanged IV/Needles/Syringes/Monitor Equipment	BLS	LALS	ALS Non-Transport	ALS Transport
Conductive medium or Pacer/Defibrillation pads			2 each	2 each
Disposable Tourniquets		2	2	2
ECG electrodes			20	20
Mechanical (i.e. SAM) or Powered (i.e.EZ) IO Driver. **manual insertion of IO needle is only permitted when mechanical or powered driver fails and no other option is available*			1 each	1 each
Mechanical/Powered IO Needles: 25 mm 45 mm			 2 each 1 each	 2 each 1 each
Glucose monitoring device with compatible strips and OSHA approved single use lancets	1	1	1	1
3-way stopcock with extension tubing			2	2
IV Catheters - sizes 14, 16, 18, 20, 22, 24		2 each	2 each	2 each
Macrodrip Administration Set Microdrip Administration Set (60 drops / cc)		3 1	3 1	3 2
Mucosal Atomizer Device (MAD) for nasal administration of medication	2	2	2	4
Pressure Infusion Bag (disposable)		1	1	1
Razors		1	2	2
Safety Needles - 20 or 21gauge and 23 or		2 each	2 each	2 each

Exchanged IV/Needles/Syringes/Monitor Equipment	BLS	LALS	ALS Non-Transport	ALS Transport
25 gauge				
Saline Lock Large Bore Tubing Needleless		2	2	2
Sterile IV dressing		2	2	2
Syringes w/wo safety needles - 1 cc, 3 cc, 10 cc catheter tip		2 each		
Syringes w/wo safety needles - 1 cc, 3 cc, 10 cc, 20 cc, 60 cc catheter tip			2 each	2 each

Non-Exchange IV/Needles/Syringes/ Monitor Equipment	BLS	LALS	ALS Non-Transport	ALS Transport
12-lead ECG Monitor and Defibrillator with TCP and printout			1	1
Blood pressure cuff - large adult or thigh cuff, adult, child and infant (one of each size)	1	1	1	1
Capnography monitor and supplies, may be integrated in the cardiac monitor			1	1
Needle disposal system (OSHA approved)	1	1	1	1
Thermometer - Mercury Free with covers	1	1	1	1

OPTIONAL EQUIPMENT/MEDICATIONS

Non-Exchange Optional Equipment/ Medications	BLS	LALS	ALS Non-Transport	ALS Transport
AED/defib pads - Adult (1), Pediatric (1)	1 each	1 each		
Albuterol MDI with spacer		4 doses	4 doses	4 doses
Automatic CPR device (FDA approved)	1	1	1	1
Automatic transport ventilator (Specialty Program Only - ICEMA approved device)			1	1
Backboard padding	1	1	1	1
Buretrol			1	1
Chemistry profile tubes			3	3
Epinephrine 0.15 mg Auto-Injector Jr.	2	2		
Epinephrine 0.3 mg Auto-Injector	2	2		
Nerve Agent Antidote Kit (NAAK) - DuoDote or Mark I	3	3	3	3
EMS Tourniquet	1		1	1
Gum Elastic intubation stylet			2	2
Hemostatic Dressings *	1	1	1	1
IO Needles - Manual, Adult and Pediatric, Optional		Pediatric sizes only IO needles and drivers	1 each	1 each
IV infusion pump			1	1
IV warming device		1	1	1
Manual IV Flow Rate Control Device			1	1
Manual powered suction device	1	1	1	1
Multi-lumen peripheral catheter			2	2
Needle Thoracostomy Kit (prepackaged)			2	2
Naloxone (Narcan) Nasal Spray 4 mg	2	2	2	2
Pulse Oximetry device	1			
Sodium Bicarbonate 50 mEq / 50cc Vial			2	2
Translaryngeal Jet Ventilation Device			1	1

Non-Exchange Optional Equipment/ Medications	BLS	LALS	ALS Non-Transport	ALS Transport
Vacutainer			1	1
Video Laryngoscope Device			1	1

* Hemostatic Dressings

- Quick Clot, Z-Medica
  Quick Clot, Combat Gauze LE
  Quick Clot, EMS Rolled Gauze, 4x4 Dressing, TraumaPad
- Celox
  Celox Gauze, Z-Fold Hemostatic Gauze
  Celox Rapid, Hemostatic Z-Fold Gauze
- HemCon ChitoFlex Pro Dressing

NOTE:

- The above products are "packaged" in various forms (i.e., Z-fold, rolled gauze, trauma pads, 4"x4"pads) and are authorized provided they are comprised of the approved product.
- Hemostatic Celox Granules, or granules delivered in an applicator, are not authorized.

DRESSING MATERIALS/OTHER EQUIPMENT/SUPPLIES

Exchanged Dressing Materials/Other Equipment/ Supplies	BLS	LALS	ALS Non-Transport	ALS Transport
Adhesive tape - 1 inch	2	2	2	2
Air occlusive dressing	1	1	1	1
Ankle and wrist restraints, soft ties acceptable	1		1	1
Antiseptic swabs/wipes	10	10	10	10
Bedpan or fracture pan Urinal	1 (BLS TRANSPORT UNITS ONLY) 1 (BLS TRANSPORT UNITS ONLY)			1 1
Cervical Collars - Rigid Pediatric and Adult all sizes or Cervical Collars - Adjustable Adult and Pediatric	2 each 2 each	2 each 2 each	2 each 2 each	2 each 2 each
Cold Packs	2	2	2	2
Emesis basin or disposable bags and covered waste container	1	1	1	1
Head immobilization device	2	2	2	2
OB Kit	1	1	1	1
Pneumatic or rigid splints capable of splinting all extremities	4	2	2	4
Provodine/Iodine swabs/wipes or antiseptic equivalent		4	10	10
Roller bandages - 4 inch	6	3	3	6
Sterile bandage compress or equivalent	6	2	2	6
Sterile gauze pads - 4x4 inch	4	4	4	4
Sterile sheet for Burns	2	2	2	2
Universal dressing 10x30 inches	2	2	2	2

Non-Exchange Dressing Materials/Other Equipment/ Supplies	**BLS**	**LALS**	**ALS Non-Transport**	**ALS Transport**
800 MHz Radio		1	1	1
Ambulance gurney	1 (BLS TRANSPORT UNITS ONLY			1
Bandage shears	1	1	1	1
Blood Borne Pathogen Protective Equipment - (nonporous gloves, goggles face masks and gowns meeting OSHA Standards)	2	1	2	2
Pediatric Emergency Measuring Tape (Broselow, etc.)		1	1	1
Drinkable water in secured plastic container or equivalent	1 gallon			1 gallon
Long board with restraint straps	1	1	1	1
Pediatric immobilization board	1	1	1	1
Pillow, pillow case, sheets and blanket	1 set (BLS TRANSPORT UNITS ONLY			1 set
Short extrication device	1	1	1	1
Straps to secure patient to gurney	1 set (BLS TRANSPORT UNITS ONLY			1 set
Traction splint	1	1	1	1
Triage Tags - ICEMA approved	20	20	20	20

MEDICATION - STANDARD ORDERS

Medications listed in this protocol may be used only for the purposes referenced by the associated ICEMA Treatment Protocol.

For Nerve Agent Antidote Kit (NAAK) or medications deployed with the ChemPack see Appendix I (Page 12).

Acetaminophen (Tylenol) - Adult (ALS)

For mild to moderate pain scales of 1-5 or in moderate to severe pain where other medications are contraindicated or deferred.

Tylenol, 1 gm IV/IO infusion over fifteen (15) minutes. Single dose only

Acetaminophen (Tylenol) – Pediatric (ALS)

For mild to moderate pain scales of 1-5 or in moderate to severe pain where other medications are contraindicated or deferred.

2 years to 14 years:

Tylenol, 15mg/kg to max of 1000mg or 1 gm IV/IO infusion over fifteen (15) minutes. Single dose only

Reference #s 7010, 7020, 14100

Adenosine (Adenocard) - Adult (ALS)

Stable narrow-complex SVT or Wide complex tachycardia:

Adenosine, 6 mg rapid IVP followed immediately by 20 cc NS bolus, and Adenosine, 12 mg rapid IVP followed immediately by 20 cc NS bolus if patient does not convert. May repeat one (1) time.

Reference #s 7010, 7020, 14040

Albuterol (Proventil) Aerosolized Solution - Adult (LALS, ALS)

Albuterol, 2.5 mg nebulized, may repeat two (2) times.

Reference #s 4060, 7010, 7020, 14010, 14070

Albuterol (Proventil) Aerosolized Solution - Adult (ALS)

For suspected hyperkalemia due to crush injury (Prolonged entrapment and/or abnormal EKG findings)

Albuterol, 2.5 mg nebulized, may repeat two (2) times **or** continuous 7.5mg nebulized

Reference # 14090

Albuterol (Proventil) Metered-Dose Inhaler (MDI) - Adult (BLS, LALS, ALS)

Albuterol MDI, four (4) puffs every 10 minutes for continued shortness of breath and wheezing.

Reference #s 4060, 4080, 7010, 7020, 14120, 14140, 14190

Albuterol (Proventil) - Pediatric (LALS, ALS)

Albuterol, 2.5 mg nebulized, may repeat two (2) times.

Reference #s 7010, 7020, 14120, 14140, 14190

Albuterol (Proventil) Metered-Dose Inhaler (MDI) - Pediatric (BLS, LALS, ALS)

Albuterol MDI, four (4) puffs every 10 minutes for continued shortness of breath and wheezing.

Reference #s 4060, 4080, 7010, 7020, 14120, 14140, 14190

Aspirin, chewable -Adult (LALS, ALS)

Aspirin, 325 mg PO chewed (one (1) adult non-enteric coated aspirin) or four (4) chewable 81 mg aspirin.

Reference #s 4060, 4080, 5010, 7010, 7020

Atropine (ALS) - Adult

Atropine, 1 mg IV/IO. May repeat every five (5) minutes up to a maximum of 3 mg or 0.04 mg/kg.

Organophosphate poisoning:
Atropine, 2 mg IV/IO, repeat at 2 mg increments every five (5) minutes if patient remains symptomatic.

Reference #s 4060, 4080, 7010, 7020, 13010, 14030, 14260

Atropine - Pediatric (ALS)

Organophosphate poisoning - Pediatrics less than 14 years of age:
Atropine, 0.05 mg/kg IV/IO not to exceed adult dose of 2 mg, repeat at 0.1 mg/kg increments every five (5) minutes if patient remains symptomatic.

Reference #s 4060, 4080, 7010, 7020, 13010

Blood Products- Adult (ALS) **[LOSOP for Approved Providers Only]**

Hemorrhagic Shock Due to Severe Traumatic Injury

LTO+WB 1 Unit warmed and infused or

pRBCs 2 Units warmed and infused

If blood administration criteria persist, administer an additional unit of LTO+WB or pRBCs

Reference # 14090, 14210

Buprenorphine-Naloxone (Suboxone ®)-Adult (ALS):

Opioid Withdrawal- Clinical Opioid Withdrawal Scale ≥ 8:
Buprenorphine-Naloxone, 16 mg/4mg sublingual, may repeat at 8 mg/2mg sublingual after ten (10) minutes if patient remains symptomatic, to a maximum total dose of 24 mg/6mg.

Reference #s 7010, 10050

Calcium Chloride - Adult (ALS) *:*

Calcium Channel Blocker Poisonings (base hospital order only)
Calcium Chloride, 1 gm (10 ml of a 10% solution) IV/IO.

Reference #s 5010, 7010, 7020, 13010

For cardiac arrest with suspected hypocalcemia, hyperkalemia, hypermagnesemia or calcium channel blocker poisoning (base hospital order only)

Calcium Chloride, 1 gm (10 ml of a 10% solution) IV/IO.

Reference #s 7010, 7020, 14050

*For End Stage Renal Disease (ESRD) patients on dialysis with suspected hyperkalemia and hemodynamic instability with documented sinus bradycardia,3rd degree AV Block, 2nd degree Type II AV Block, slow junctional and ventricular escape rhythms, or slow atrial fibrillation. (Base hospital order only**).***

Calcium Chloride, 1 gm (10 ml of a 10% solution) IV/IO

Reference #s 5010, 7010, 7020, 14030

For suspected hyperkalemia due to crush injury (Prolonged entrapment and/or abnormal EKG findings)

Calcium Chloride, 1 gm (10 ml of a 10% solution) IV/IO

Reference # 14090

Calcium Chloride - Pediatric (ALS) ***(base hospital order only)****:*

Calcium Channel Blocker Poisonings
Calcium Chloride, 20 mg/kg IV/IO over five (5) minutes.

Reference #s 7010, 7020, 13010

Dextrose - Adult (LALS, ALS)

Hypoglycemia - Adult with blood glucose less than 80 mg/dL:
Dextrose 10% /250 ml (D10W 25 gm) IV/IO Bolus

Reference #s 4060, 4080, 5010, 7010, 7020, 8010, 13020, 13030, 14040, 14060

Dextrose - Pediatric (LALS, ALS)

Hypoglycemia - Neonates (0 - 4 weeks) with blood glucose less than 35 mg/dL or pediatric patients (more than 4 weeks) with glucose less than 60 mg/dL:
Dextrose 10%/250 ml (D10W 25 gm) 0.5 gm/kg (5 ml/kg) IV/IO

Reference #s 5010, 7010, 7020, 13020, 13030, 14150, 14160, 14170

Diazepam – Adult (ALS) ***only when midazolam is not commercially available.***

Seizures:
Diazepam , 5 mg IV/IO, single dose only
Diazepam 10mg IM, single dose only

Diazepam- Pediatric ***(ALS) only when midazolam is not commercially available*****.**

Seizures:

Diazepam 0.1mg/kg IV/IO, single dose only, not to exceed adult dose of ***5mg***
Diazepam 0.2mg/kg IM, single dose only, not to exceed adult dose of ***10mg***

Reference #s 7010, 7020, 14170

Diphenhydramine - Adult (ALS)

Diphenhydramine, 25 mg IV/IO

Diphenhydramine, 50 mg IM

Reference #s 4060, 4080, 7010, 7020, 13010, 14010

Diphenhydramine - Pediatric (ALS)

Allergic reaction:

2 years to 14 years	Diphenhydramine, 1 mg/kg slow IV/IO, not to exceed adult dose of 25 mg, **or**
	Diphenhydramine, 2 mg/kg IM not to exceed adult dose of 50 mg IM.

Reference #s 7010, 7020, 14140

Epinephrine (1 mg/ml) - Adult (LALS, ALS)

Severe Bronchospasm, Asthma Attack, Pending Respiratory Failure, Severe Allergic Reactions:
Epinephrine, 0.3 mg IM. May repeat after 15 minutes one (1) time if symptoms do not improve.

Reference # 14010

Epinephrine (0.1 mg/ml) - Adult (ALS)

For persistent severe anaphylactic reaction:
Epinephrine (0.1 mg/ml), 0.1 mg slow IVP/IO. May repeat every five (5) minutes as needed to total dosage of 0.5 mg.

Reference # 14010

Cardiac Arrest, Asystole, PEA:
Epinephrine (0.1 mg/ml), 1 mg IV/IO.

Reference #s 4060, 4080, 5010, 7010, 7020, 14010, 14050, 14260

Epinephrine (0.3 Auto injector) - Adult (BLS, LALS, ALS)

For severe asthma and/or anaphylaxis only

Epinephrine 0.3 mg auto-injector, may repeat once after 15 minutes

Epinephrine (0.15 Auto injector Jr.) - Pediatric (BLS,LALS, ALS)

For anaphylaxis only

Epinephrine 0.15 mg auto-injector

Epinephrine (0.01 mg/ml) - Adult (ALS)

Post resuscitation, persistent profound nontraumatic shock and hypotension, and for persistent shock due to trauma where cardiac arrest is imminent:(Push Dose Epinephrine).

Prepare Epinephrine 0.01 mg/ml solution by mixing 9 ml of normal saline with 1 ml of Epinephrine 0.1 mg/ml in a 10 ml syringe. Administer 1 ml every one (1) to five (5) minutes titrated to maintain SBP more than 90 mm Hg.

Reference #s 4060, 4080, 5010, 7010, 7020, 11010, 14050, 14090,14230

Epinephrine (1 mg/ml) - Pediatric (LALS, ALS)

Severe Bronchospasm, Asthma Attack, Pending Respiratory Failure, Severe Allergic Reactions:
Epinephrine, 0.01 mg/kg IM not to exceed adult dosage of 0.3 mg. May repeat after 15 minutes one (1) time if symptoms do not improve.

Reference #s 4060, 5010, 7010, 7020, 14120, 14140

Epinephrine (0.1 mg/ml) - Pediatric (ALS)

Anaphylactic reaction (no palpable radial pulse and depressed level of consciousness):
Epinephrine (0.1 mg/ml), 0.01 mg/kg IV/IO, no more than 0.1 mg per dose. May repeat to a maximum of 0.5 mg.

Cardiac Arrest:

1 day to 8 years	Epinephrine (0.1 mg/ml), 0.01 mg/kg IV/IO (do not exceed adult dosage)
9 to 14 years	Epinephrine (0.1 mg/ml), 1.0 mg IV/IO

Newborn Care:
Epinephrine (0.1 mg/ml), 0.01 mg/kg IV/IO if heart rate is less than 60 after one (1) minute after evaluating airway for hypoxia and assessing body temperature for hypothermia.

Epinephrine (0.1 mg/ml), 0.005 mg/kg IV/IO every 10 minutes for persistent hypotension as a base hospital order or in radio communication failure.

Reference # 14200

Epinephrine (0.01 mg/ml) - Pediatric (ALS)

Post resuscitation, profound shock and hypotension, for persistent shock due to trauma where cardiac arrest is imminent (Push Dose Epinephrine):

Prepare Epinephrine 0.01 mg/ml solution by mixing 9 ml of normal saline with 1 ml of Epinephrine 0.1 mg/ml in a 10 ml syringe. Administer 0.1 ml/kg (do not exceed adult dosage), every one (1) to five (5) minutes. Titrate to maintain a SBP more than 70 mm Hg.

Reference #s 5010, 7010, 7020, 11010, 14150, 14180, 14230

Epinephrine (1mg/ml) Nebulized – Pediatric (ALS)

*Nebulized epinephrine is strictly for the treatment of **croup** associated with **stridor at rest**.*

Administration of nebulized epinephrine to pediatric patients greater than 8 years of age is not permitted.

Nebulized Epinephrine 0.5 mg/kg (1 mg/ml) 1:1000, mixed with NS for minimum volume 3 ml, not to exceed a max single dose of 5mg.

Fentanyl - Adult (ALS)

Chest Pain (Presumed Ischemic Origin):

Fentanyl, 50 mcg slow IV/IO over one (1) minute. May repeat every five (5) minutes titrated to pain, not to exceed 200 mcg.

Fentanyl, 100 mcg IM/IN. May repeat 50 mcg every 10 minutes titrated to pain, not to exceed 200 mcg.

Acute traumatic injuries, acute abdominal/flank pain, burn injuries, Cancer pain, Sickle Cell Crisis:

Fentanyl, 50 mcg slow IV/IO push over one (1) minute. May repeat every five (5) minutes titrated to pain, not to exceed 200 mcg IV/IO, **or**

Fentanyl, 100 mcg IM/IN. May repeat 50 mcg every 10 minutes titrated to pain, not to exceed 200 mcg.

Pacing, synchronized cardioversion:

Fentanyl, 50 mcg slow IV/IO over one (1) minute. May repeat in five (5) minutes titrated to pain, not to exceed 200 mcg.

Fentanyl, 100 mcg IN. May repeat 50 mcg every 10 minutes titrated to pain, not to exceed 200 mcg.

Any combination of IV/IO/IM/IN may be administered, not to exceed 200 mcg. Contact base hospital for additional orders and to discuss further treatment options.

Reference #s 3050, 4060, 4080, 5010, 7010, 7020, 11020, 13030, 14070, 14090, 14100, 14240

Fentanyl - Pediatric (ALS)

Fentanyl, 0.5 mcg/kg slow IV/IO over one (1) minute. May repeat in five (5) minutes titrated to pain, not to exceed 50 mcg for a single dose.

Fentanyl, 1 mcg/kg IM/IN, may repeat every 10 minutes titrated to pain not to exceed 100 mcg for a single dose.

Any combination of IV/IO/IM/IN may be administered, not to exceed four (4) doses or cumulative maximum of 200 mcg. Contact base hospital for additional orders and to discuss further treatment options.

Reference #s 3050, 4080, 5010, 7010, 7020, 13030, 14180, 14190, 14240

Glucose - Oral - Adult (BLS, LALS, ALS)

Adult with blood glucose less than 80 mg/dL:
Glucose - Oral, one (1) tube for patients with an intact gag reflex and hypoglycemia.

Reference #s 7010, 7020, 13020, 14060, 14080, 14230

Glucose - Oral - Pediatric (BLS, LALS, ALS)

Hypoglycemia - Neonates (0 - 4 weeks) with blood glucose less than 35 mg/dL or pediatric patients (more than 4 weeks) with glucose less than 60 mg/dL:
Glucose - Oral, one (1) tube for patients with an intact gag reflex and hypoglycemia.

Reference #s 7010, 7020, 14170, 14160

Glucagon - Adult (LALS, ALS)

Glucagon, 1 mg IM/SC/IN, if unable to establish IV. May administer one (1) time only.

Beta blocker Poisoning (***base hospital order only***)*:*
Glucagon, 1 mg IV/IO

Reference #s 4060, 4080, 7010, 7020, 13010, 13030, 14060

Glucagon - Pediatric (LALS, ALS)

Hypoglycemia, if unable to establish IV:
Glucagon, 0.03 mg/kg IM/IN, if unable to start an IV. May be repeated one (1) time after 20 minutes for a combined maximum dose of 1 mg.

Reference #s 7010, 7020, 13030, 14160, 14170

*Beta blocker poisoning **(base hospital order only)**:*
Glucagon, 0.03 mg/kg IV/IO

Reference #'s 4060, 4080, 7010, 7020, 13010

Ipratropium Bromide (Atrovent) Inhalation Solution use with Albuterol Adult (ALS)

Atrovent, 0.5 mg nebulized. Administer one (1) dose only.

Reference #s 7010, 7020, 14010, 14070

Ipratropium Bromide (Atrovent) Metered-Dose Inhaler (MDI) use with Albuterol Adult (ALS)

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

Reference #s 4060, 4080, 7010, 7020, 14010, 14070

Ipratropium Bromide (Atrovent) Inhalation Solution use with Albuterol - Pediatric (ALS)

1 day to 12 months	Atrovent, 0.25 mg nebulized. Administer one (1) dose only.
1 year to 14 years	Atrovent, 0.5 mg nebulized. Administer one (1) dose only.

Reference #s 7010, 7020, 14120, 14140, 14190

Ipratropium Bromide (Atrovent) Metered-Dose Inhaler (MDI) use with Albuterol - Pediatric (ALS)

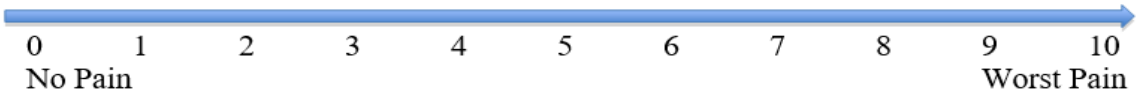
When used in combination with Albuterol MDI use Albuterol MDI dosing.

Reference #s 4060, 4080, 7010, 7020, 14120, 14140, 14190

Ketamine - Adult (ALS)

Acute traumatic injury, acute abdominal/flank pain, burn injuries, cancer related pain and sickle cell crisis:
Ketamine, 0.3 mg/kg to a max of 30 mg in a 50 - 100 ml of NS via IV over five (5) minutes. May repeat one (1) time, after 15 minutes, if pain score remains at five (5) or higher. Do not administer IVP, IO, IM, or IN.

This is the official pain scale to be used in patient assessment and documented on the PCR.



Reference #s 7010, 7020, 14100

Lidocaine - Adult (ALS)

VT (pulseless)/VF:
Initial Dose: Lidocaine, 1.5 mg/kg IV/IO

For refractory *VT (pulseless)/VF*, may administer an additional 0.75 mg/kg IV/IO, repeat one (1) time in five (5) to 10 minutes; maximum total dose of 3 mg/kg.

V-Tach, Wide Complex Tachycardia - with Pulses:
Lidocaine, 1.5 mg/kg slow IV/IO

May administer an additional 0.75 mg/kg slow IV/IO; maximum total dose of 3 mg/kg.

Reference #s 4060, 5010, 7010, 7020, 8010, 11020, 14040, 14050, 14090

Lidocaine - Pediatric (ALS)

Cardiac Arrest:

1 day to 8 years	Lidocaine, 1.0 mg/kg IV/IO
9 to 14 years	Lidocaine, 1.0 mg/kg IV/IO

May repeat Lidocaine at 0.5 mg/kg after five (5) minutes; maximum total dose of 3 mg/kg.

Reference #s 5010, 7010, 7020, 14150

Lidocaine 2% (Intravenous Solution) - Pediatric and Adult (ALS)

Pain associated with IO infusion:
Lidocaine, 0.5 mg/kg slow IO push over two (2) minutes, not to exceed 40 mg total.

Reference #s 5010, 7010, 7020, 11020

Magnesium Sulfate-Adult (ALS)

Polymorphic Ventricular Tachycardia:
Magnesium Sulfate, 2 gm IV/IO bolus over five (5) minutes for polymorphic VT if prolonged QT is observed during sinus rhythm post-cardioversion.

Eclampsia (Seizure/Tonic/Clonic Activity):
Magnesium Sulfate, 4 gm IV/IO slow IV push over three (3) to four (4) minutes.

Magnesium Sulfate, 10 mg/min IV/IO drip to prevent continued seizures.

Reference #s 5010, 7010, 7020, 8010, 14210

*Severe Asthma/Respiratory Distress (ALS) **(base hospital order only)**:*
Magnesium Sulfate, 2 gm slow IV drip over 20 minutes. Do not repeat.
Reference# 14010

Magnesium Sulfate - Pediatric (ALS)

*Severe Asthma/Respiratory Distress **(base hospital order only)**:*
Magnesium Sulfate, 50 mg/kg slow IV drip over 20 minutes. Do not exceed the adult dosage of 2 gm total. Do not repeat.

Reference # 14120

Midazolam (Versed) - Adult (ALS)

Behavioral Emergencies, if patient meets criteria for potentially fatal and dangerous agitation:
Midazolam, 2.5 mg IV/IO. May repeat in five (5) minutes, **or**

Midazolam, 5 mg IM/IN. May repeat in 10 minutes.

Maximum of three (3) doses using any combination of IV/IO/IM/IN may be administered. Contact base hospital for additional orders and to discuss further treatment options.

Reference # 14110

*Post Intubation Agitation **(base hospital order only)**: Agitation following Intubation that hinders patient's care, i.e. biting or attempting to remove ET tube/lines,* **Not to be used for sedation during intubation of any patients**.
Midazolam, 2.5 mg IV/IO **or**

Midazolam 5 mg IM/IN

Patient must have advanced airway (endotracheal tube or i-gel.)

Repeat dose requires base hospital contact.

Reference # 14050

Seizure:

Midazolam, 2.5 mg IV/IO. May repeat in five (5) minutes for continued seizure activity, **or**

Midazolam, 5 mg IM/IN. May repeat in 10 minutes for continued seizure activity.

Assess patient for medication related reduced respiratory rate or hypotension.

Maximum of three (3) doses using any combination of IV/IO/IM/IN may be administered for continued seizure activity. Contact base hospital for additional orders and to discuss further treatment options.

Pacing, synchronized cardioversion:

Midazolam, 2.5 mg slow IV/IO. May repeat in five (5) minutes.

Midazolam, 5 mg IM/IN. May repeat in ten (10) minutes.

Maximum of three (3) doses using any combination of IV/IO/IM/IN may be administered. Contact base hospital for additional orders and to discuss further treatment options.

CPAP:

Midazolam, 1 mg IV/IO/IM/IN may be administered one (1) time for anxiety related to application of CPAP. Contact base hospital for additional orders.

Reference #s 4060, 4080, 7010, 7020, 11020, 13020, 14060, 14210

Midazolam (Versed) - Pediatric (ALS)

Seizures:

Midazolam, 0.1 mg/kg IV/IO with maximum dose 2.5 mg. May repeat Midazolam in five (5) minutes, **or**

Midazolam, 0.2 mg/kg IM/IN with maximum dose of 5 mg. May repeat Midazolam in 10 minutes for continued seizure.

Assess patient for medication related reduced respiratory rate or hypotension.

Maximum of three (3) doses using any combination of IV/IO/IM/IN may be administered for continued seizure activity. Contact base hospital for additional orders and to discuss further treatment options.

Behavioral Emergencies, if patient meets criteria for potentially fatal and dangerous agitation ***(base hospital order):***

Midazolam, 0.1 mg/kg IV/IO. May repeat in five (5) minutes, **or**

Midazolam, 0.2 mg/kg IM/IN. May repeat in 10 minutes.

Assess patient for medication related reduced respiratory rate or hypotension.

Maximum of three (3) doses using any combination of IV/IO/IM/IN may be administered. Not to exceed adult dose. Contact base hospital for additional orders and to discuss further treatment options.

Reference #s 7010, 7020, 14170, 14110

Naloxone (Narcan) - Adult (BLS)

For resolution of respiratory depression related to suspected opiate overdose:

Naloxone, 0.5 mg IM/IN, may repeat Naloxone 0.5 mg IM/IN every two (2) to three (3) minutes if needed to improve respiratory effort.

For suspected Fentanyl overdose with respiratory depression:

Consider a loading dose of 4 mg IN Naloxone. If no signs of respiratory improvement, consider Naloxone 0.5 mg IM/IN every two (2) to three (3) minutes if needed.

Do not exceed 10 mg of Naloxone total regardless of route administered.

Reference #s 7010, 7020, 8030, 14060

Naloxone (Narcan) - Adult (LALS, ALS)

For resolution of respiratory depression related to suspected opiate overdose:

Naloxone, 0.5 mg IV/IO/IM/IN, may repeat Naloxone 0.5 mg IV/IO/IM/IN every two (2) to three (3) minutes if needed to improve respiratory effort.

For suspected Fentanyl overdose with respiratory depression:

Consider a loading dose of 4 mg IN Naloxone, may repeat one (1) time. If no signs of respiratory improvement, consider Naloxone 0.5 mg IV/IO/IM/IN every two (2) to three (3) minutes if needed.

Do not exceed 10 mg of Naloxone total regardless of route administered.

Reference #s 4080, 7010, 7020, 14060

Naloxone (Narcan) - Pediatric (BLS)

For resolution of respiratory depression related to suspected opiate overdose:

1 day to 8 years	Naloxone, 0.1 mg/kg IM/IN (do not exceed the adult dose of 0.5 mg per administration)
9 to 14 years	Naloxone, 0.5 mg IM/IN

May repeat every two (2) to three (3) minutes if needed. Do not exceed the adult dosage of 10 mg total IM/IN.

Reference #s 7010, 7020, 8030, 14150, 14160

Naloxone (Narcan) - Pediatric (LALS, ALS)

For resolution of respiratory depression related to suspected opiate overdose:

1 day to 8 years	Naloxone, 0.1 mg/kg IV/IO/IM/IN (do not exceed the adult dose of 0.5 mg per administration)
9 to 14 years	Naloxone, 0.5 mg IV/IO/IM/IN

May repeat every two (2) to three (3) minutes if needed. Do not exceed the adult dosage of 10 mg total IV/IO/IM/IN.

Reference #s 7010, 7020, 14150, 14160

Nitroglycerin (NTG) -Adult (LALS, ALS)

Nitroglycerin, 0.4 mg sublingual/transmucosal.

One (1) every three (3) minutes as needed. May be repeated as long as patient continues to have signs of adequate tissue perfusion. **If a Right Ventricular Infarction is suspected, the use of nitrates requires base hospital contact.**

Nitroglycerin Paste, 1 inch (1 gm) transdermal, may not repeat.

Nitroglycerin sublingual is the preferred route of administration for ACS. Nitro Paste is a one (1) time dose and intended for when sublingual cannot be easily administered (i.e., CPAP).

Nitroglycerin is contraindicated if there are signs of inadequate tissue perfusion or if sexual enhancement medications have been utilized within the past 48 hours.

Reference #s 4060, 4080, 7010, 7020, 14010, 14240

Ondansetron (Zofran) - Patients four (4) years old to Adult (ALS)

Nausea/Vomiting:

Ondansetron, 4 mg slow IV/IO/ODT

All patients four (4) to eight (8) years old: May administer a total of 4 mgs of Ondansetron prior to base hospital contact.

All patients nine (9) and older: May administer Ondansetron 4 mg; may repeat two (2) times, at 10 minute intervals, for a total of 12 mgs prior to base hospital contact.

May be used as prophylactic treatment of nausea and vomiting associated with narcotic administration.

Reference #s 4080, 7010, 7020, 14090, 14180, 14220

Oxygen - Pediatric and Adult (BLS, LALS. ALS) (non-intubated patient per appropriate delivery device)

General Administration (Hypoxia):

Titrate Oxygen at lowest rate required to maintain SPO_2 at 94%. Do not administer supplemental oxygen for SPO_2 more than 95%.

Chronic Obstructive Pulmonary Disease (COPD):

Titrate Oxygen at lowest rate required to maintain SPO_2 at 90%. Do not administer supplemental oxygen for SPO_2 more than 91%.

Reference #s 12010, 13010, 13020, 13030, 13050, 14010, 14020, 14030, 14040, 14060, 14070, 14090, 14120, 14130, 14140, 14160, 14170, 14180, 14190, 14200, 14210, 14220, 14230, 14240

Sodium Bicarbonate - Adult (ALS)

*Tricyclic Poisoning **(base hospital order only)**:*

Sodium Bicarbonate, 1 mEq/kg IV/IO

Reference #s 5010, 7010, 7020, 13010

*For cardiac arrest with suspected metabolic acidosis, hyperkalemia or tricyclic poisoning **(base hospital order only)**:*

Sodium Bicarbonate, 50 mEq IV/IO/ 50cc preload or 50cc single-dose vial

Reference #'s 7010, 7020, 14050

For suspected hyperkalemia due to crush injury : (Prolonged entrapment and/or abnormal EKG findings)

Sodium Bicarbonate, 50 mEq IV/IO/ 50cc preload or 50cc single-dose vial

Reference # 14090

Sodium Bicarbonate - Pediatric (ALS)

*Tricyclic Poisoning **(base hospital order only)**:*

Sodium Bicarbonate, 1 mEq/kg IV/IO

Reference #'s 7010, 7020, 13010

Tranexamic Acid (TXA) - Patients 15 years of age and older (ALS)

Signs of hemorrhagic shock meeting inclusion criteria:

Tranexamic Acid, 2 gm slow IV/IO over 1 minute or

Tranexamic Acid, 1 gm as 2 x 5ml IM injections

Signs of postpartum hemorrhagic shock (base hospital order only)

Tranexamic Acid, 2 gm slow IV/IO over 1 minute or

Tranexamic Acid, 1 gm as 2 x 5ml IM injections

Reference #s 7010, 7020, 14090, 14210, 14230,

APPENDIX I

Medications for self-administration or with deployment of the ChemPack.

Medications listed below may be used only for the purposes referenced by the associated ICEMA Treatment Protocol. Any other use, route or dose other than those listed, must be ordered in consultation with the Base Hospital physician.

Atropine - Pediatric (BLS, AEMT-Auto-injector only with training, ALS)

Known nerve agent/organophosphate poisoning with deployment of the ChemPack using:

Two (2) or more mild symptoms: Administer the weight-based dose listed below as soon as an exposure is known or strongly suspected. If severe symptoms develop after the first dose, two (2) additional doses should be repeated in rapid succession 10 minutes after the first dose; do not administer more than three (3) doses. If profound anticholinergic effects occur in the absence of excessive bronchial secretions, further doses of atropine should be withheld.

One (1) or more severe symptoms: Immediately administer (3) three weight-based doses listed below in rapid succession.

Weight-based dosing:

Less than 6.8 kg (less than 15 lbs):	0.25 mg, IM using multi-dose vial
6.8 to 18 kg (15 to 40 lbs):	0.5 mg, IM using AtroPen auto-injector
18 to 41 kg (40 to 90 lbs):	1 mg, IM using AtroPen auto-injector
More than 41 kg (more than 90 lbs):	2 mg, IM using multi-dose vial

Symptoms of insecticide or nerve agent poisoning, as provided by manufacturer in the AtroPen product labeling, to guide therapy:

Mild symptoms: Blurred vision, bradycardia, breathing difficulties, chest tightness, coughing, drooling, miosis, muscular twitching, nausea, runny nose, salivation increased, stomach cramps, tachycardia, teary eyes, tremor, vomiting, or wheezing.

Severe symptoms: Breathing difficulties (severe), confused/strange behavior, defecation (involuntary), muscular twitching/generalized weakness (severe), respiratory secretions (severe), seizure, unconsciousness, urination (involuntary).

NOTE: Infants may become drowsy or unconscious with muscle floppiness as opposed to muscle twitching.

Reference #s 11010, 13010, 13040

Diazepam (Valium) - Adult (ALS)

For seizures associated with nerve agent/organophosphate exposure ONLY with the deployment of the ChemPack:

Diazepam 10 mg (5 mg/ml) auto-injector IM (if IV is unavailable), **or**
Diazepam 2.5 mg IV

Reference # 13040

Diazepam (Valium) - Pediatric (ALS)

For seizures associated with nerve agent/organophosphate exposure ONLY with the deployment of the ChemPack:

Diazepam 0.05 mg/kg IV

Reference # 13040

Nerve Agent Antidote Kit (NAAK)/Mark I or DuoDote (containing Atropine/Pralidoxime Chloride for self-administration or with deployment of the ChemPack) - Adult

Nerve agent exposure with associated symptoms:

One (1) NAAK auto-injector IM into outer thigh. May repeat up to two (2) times every 10 to 15 minutes if symptoms persist.

Reference #s 7010, 7020, 13010, 13040

RESPIRATORY EMERGENCIES - PEDIATRIC (Less than 15 years of age)

I. FIELD ASSESSMENT/TREATMENT INDICATORS

- Asthma
- Toxic Inhalation
- Difficult Breathing
- Stridor at Rest (Croup)

II. BLS INTERVENTIONS

- Assess environment and determine possible causes.
- If safe remove patient from any suspected contaminant.
- Recognize signs and symptoms of respiratory distress for age.
- Reduce anxiety, assist patient to assume position of comfort.
- Oxygen administration as clinically indicated (humidified oxygen preferred).

III. LIMITED ALS (LALS) INTERVENTIONS

- Maintain airway with appropriate adjuncts, obtain oxygen saturation on room air if possible.
- Albuterol per ICEMA Reference #11010 - Medication - Standard Orders.
- If no response to Albuterol, consider Epinephrine per ICEMA Reference #11010 - Medication - Standard Orders.
- Obtain vascular access at a TKO rate.
- If allergic reaction suspected, refer to ICEMA Reference #14140 - Allergic Reactions - Pediatric (Less than 15 years of age).
- Base hospital physician may order additional medications or interventions as indicated by patient condition.

IV. ALS INTERVENTIONS

- Maintain airway with appropriate adjuncts, obtain O_2 saturation on room air if possible.
  - ➢ Albuterol with Atrovent, per ICEMA Reference #11010 - Medication - Standard Orders.
- If no response to Albuterol and Atrovent, consider Epinephrine per ICEMA Reference #11010 - Medication - Standard Orders. Obtain vascular access at a TKO rate.

- If allergic reaction suspected, refer to ICEMA Reference #14140 - Allergic Reactions - Pediatric (Less than 15 years of age).

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

- **CROUP ASSOCIATED WITH STRIDOR AT REST (CRITICAL FINDING)**

  - Administration of nebulized epinephrine to pediatric patients greater than 8 years of age is not permitted.

  - Nebulized Epinephrine 0.5 mg/kg (1 mg/ml) 1:1000, mixed with NS for minimum volume 3 ml, not to exceed a max single dose of 5mg.

V. BASE HOSPITAL MAY ORDER THE FOLLOWING

- For severe asthma/respiratory distress that has failed to respond to the other previous treatments, administer Magnesium Sulfate per ICEMA Reference #7040 - Medication - Standard Orders.

V. REFERENCES

Number	Name
11010	Medication - Standard Orders
14140	Allergic Reactions - Pediatric (Less than 15 years of age)