PURPOSE:
In addition to the requirements listed in the Trauma Care Systems policy, the following standards define Level II Trauma Centers for the Nor-Cal EMS region.

AUTHORITY:
Title 22, Division 9, Chapter 7

POLICY:
A Level II Trauma Center is a licensed RF designated as a BH, which has met the State requirements and has successfully been designated as a Level II Trauma Center in the Nor-Cal EMS region.

ROLE:
The Level II Trauma Center assumes the lead role in either the North or South Zone catchment areas, respectively, in the Nor-Cal EMS region. Level II’s are encouraged to establish a relationship that provides continuing education and evaluation for lower level Trauma Centers, rural facilities, and clinicians.

TRAUMA PROGRAM:
Trauma programs shall provide for the implementation of the requirements specified in the Trauma Care Systems Module and provide for coordination with the State and local EMS agencies. The Level II trauma program shall include the following:

1. Chief of Trauma, who is a board-certified surgeon and whose responsibilities include, but are not limited to, factors that affect all aspects of trauma care such as:
   a. Coordinating with local and State EMS agencies;
   b. Recommending trauma team physician privileges:
      - Identifying representatives from neurosurgery, orthopaedic surgery, emergency medicine, pediatrics and other appropriate disciplines to assist in identifying physicians from their disciplines who are qualified to be members of the trauma program;
      - Correcting deficiencies in trauma care or excluding from trauma call those trauma team members who no longer meet standards;
   c. Working with nursing and administration to support the needs of trauma patients (i.e., trauma call scheduling, diversion authorization process, etc.);
   d. Developing trauma treatment protocols;
   e. Determining appropriate equipment and supplies for trauma care;
   f. Coordinating Pediatric trauma care with other hospital and professional services;
   g. Assisting in the coordination of the budgetary process for the trauma program;
   h. Having authority and accountability for the quality improvement peer review process. Attends and participates in the Nor-Cal EMS Trauma Audit Committee meetings as scheduled;

2. Trauma Program Manager who collaborates with the Chief of Trauma in carrying out the educational, clinical, research, administrative and outreach activities of the trauma program. See Trauma Program Manager Policy for further details.

3. Services that include at least the following surgical specialties, which are staffed by qualified specialists:
   a. General;
   b. Neurology;
c. Obstetric/Gynecology;
d. Ophthalmology;
e. Oral or maxillofacial or head and neck;
f. Orthopaedic;
g. Plastic; and
h. Urology

4. Services that include at least the following NON-surgical specialties, which are staffed by qualified specialists:
   a. Anesthesiology;
   b. Critical Care and/or Pulmonology;
   c. Internal Medicine;
   d. Pathology;
   e. Psychiatry; and
   f. Radiology.

5. An emergency department with a designated Trauma Resuscitation Area of adequate size and necessary equipment to accommodate at least two multi-system-injured patients, and staffed so that trauma patient’s are assured of immediate and appropriate initial care.

TRAUMA CENTER RESPONSE POLICIES AND PROCEDURES:

1. Identification of appropriate team(s) who are to be activated for trauma patients and which shall be activated based on trauma triage criteria and the definition of a Critical Trauma Patient and minimum activation criteria outlined in the Trauma Triage and Activation Policy. Call schedules will identify individuals by name and will be date and time specific.

2. Individual (by position) responsible for activation (notification) of the resuscitation and trauma teams, including the trauma surgeon.

3. Procedure for activation (notification) of the resuscitation team and trauma team, including the trauma surgeon.

4. Determining appropriate equipment and supplies for trauma care.

5. If applicable, tiered levels of response to trauma patients, as defined in regional policy.


7. Mobilization of back-up trauma teams and personnel.

8. Notification of other surgical or non-surgical specialties.

9. Documentation of compliance with this policy, including surgeon notification time of arrival of trauma surgeon in the trauma resuscitation area, as well as the response times of other trauma team members.

10. Identification guidelines of patients who may be transferred to a Level I Trauma Center or specialty care center.

TRAUMA TEAM AVAILABILITY:

1. Trauma Resuscitation Team: A multidisciplinary team responsible for the initial resuscitation and management of the trauma patient shall be immediately available.

   a. In the case where the trauma surgeon is not present in the trauma resuscitation area on patient arrival, a Qualified Emergency Medicine Specialist shall direct the team until the trauma surgeon arrives.
b. If the resuscitation team is committed or the Emergency Department is on diversion due to saturation, there shall be one level of resources available outside of the Emergency Department to manage a trauma patient.

2. **Trauma team**: A trauma team that consists of a trauma surgeon, anesthesiologist, and operating room crew shall be **immediately available**. This entire team shall be dedicated to the trauma service and may not participate in any activities, which would delay their response to a Tier I Activation. This requirement may be maintained by a back up trauma surgeon and/or back up OR crews.

**TRAUMA SERVICE AVAILABILITY:**

1. **Emergency Physician**: A Qualified Emergency Medicine Specialist shall be in-house and **immediately available** at all times, 24 hours a day.

2. **Trauma Surgeon**: A general surgeon capable of evaluating and treating adult and pediatric patients shall be on call at all times, 24 hours a day and shall be:
   a. **Immediately available** for Tier I Activations. The trauma surgeon shall meet the Critical Trauma Patient upon arrival in the Trauma Resuscitation Area at a minimum of 80% of the time.
   b. **Promptly available** for Tier II Activations, or as clinically indicated.
   c. If the trauma surgeon on-call is committed to surgery, an additional qualified trauma surgeon shall become **immediately available**, within thirty (30) minutes of the first surgeon becoming committed.

3. **Neurosurgeon**: If a patient has an isolated penetrating head injury, defined ONLY as isolated gun shot or stab wound(s) to the head, the trauma center may have a policy in place to activate the neurosurgeon in place of the trauma surgeon along with the trauma team for these specific cases. The neurosurgeon shall be **immediately available** for Tier I Activations and **promptly available** or as clinically indicated for Tier II Activations.

4. **Anesthesiologists**: Shall be **promptly available**, with a mechanism established to ensure that the anesthesiologist is in the operating room when the patient arrives in the surgical suite. If Registered nurse anesthetists are utilized, see additional requirements in Title 22, Division 9, Chapter 7, Section 100263(J)(2), to fulfill requirements; an exception for the anesthesiologist requirement may be requested through an application process from the EMS Authority.

5. **Surgical Service**: An operating room must be adequately staffed and readily available in a timely manner. The criterion can be met by a team on call from outside the hospital. If an on-call team is used, availability of the operating room personnel and the timeliness of starting operations must be evaluated by the hospital PIPS process and measures implemented to ensure optimal care.

**OTHER SPECIALTIES RESPONSE TIMES/AVAILABILITY:**

1. Surgical specialties, which are on call and **promptly available** from outside the hospital and available for consultation:
   a. Neuro Surgery
   b. Obstetric/gynecologic
   c. Ophthalmologic
   d. Oral or maxillofacial or head and neck
   e. Orthopaedic
   f. Plastic
   g. Urologic

2. Available for consultation or consultation and transfer agreements for adult and pediatric trauma patients requiring the following surgical services:
   a. Burns
   b. Cardiothoracic
   c. Pediatric
d. Reimplantation/microsurgery; and  
e. Spinal Surgery

3. Non-surgical Specialties:
   a. Anesthesiology - Shall be promptly available, with a mechanism established to ensure that the anesthesiologist is in the operating room when the patient arrives in the surgical suite.  
b. Radiology - Shall be promptly available within one (1) hour and available for consultation as necessary.

4. Available for consultation for adult and pediatric trauma patients requiring the following non-surgical service:
   a. Cardiology  
b. Gastroenterology  
c. Hematology  
d. Infectious diseases  
e. Internal Medicine  
f. Nephrology  
g. Neurology  
h. Pathology, and  
i. Pulmonary Medicine

SERVICE CAPABILITIES:

1. Emergency Service: The basic emergency service shall:
   a. Designate an emergency physician to be a member of the trauma resuscitation team.  
b. Provide emergency services to adult and pediatric patients.  
c. Provide appropriate adult and pediatric equipment and supplies as approved by the director of emergency medicine in collaboration with the Chief of Trauma.

2. Radiological service: The radiological service shall have immediately available a radiological technician capable of performing plain film and computed tomography imaging. In addition, they shall have angiography and ultrasound promptly available.

3. Clinical Laboratory service: A clinical laboratory service shall be immediately available and have a comprehensive blood bank or access to a community central blood bank.

4. Surgical service: There shall be an operating suite that is available or being utilized for trauma patients that has:
   a. Operating staff that are immediately available unless operating on trauma patients and have back-up personnel who are promptly available.  
b. Appropriate surgical equipment and supplies as determined by the trauma program Medical Director.

5. Intensive Care Service:
   a. The ICU shall have appropriate equipment and supplies as determined jointly by the physician responsible for the intensive care service and the Trauma Program Medical Director.  
b. The ICU shall have a qualified specialist to care for patients in the intensive care unit and be a member of the trauma team.

6. Burn Center: These services may be provided through a written transfer agreement with a burn center.

7. Physical Therapy Service: These services shall include personnel trained in physical therapy and equipped for acute care of the critically injured patient.
8. Rehabilitation Center: These services to include personnel trained in rehabilitation care and equipped for acute care of the critically injured patient, and have acute spinal cord injury management capability. This may be provided through a written transfer agreement.

9. Respiratory Care Service: These services to include personnel trained in respiratory therapy and equipped for acute care of the critically injured patient.

10. Acute hemodialysis capability.

11. Pediatric Service: The pediatric service providing in-house pediatric trauma care shall have a pediatric intensive care unit approved by the California State Department of Health Services’ CCS. Trauma Centers without pediatric intensive care units shall establish and utilize written criteria for consultation and transfer of pediatric patients needing intensive care to a Trauma Center with an approved pediatric intensive care unit. In addition they shall provide a multidisciplinary team to manage child abuse and neglect.

12. Acute Spinal Cord Injury management capability. This service may be provided through a written transfer agreement with a Rehabilitation Center.

13. Occupational Therapy Service: These services to include personnel trained in occupational therapy and equipped for acute care of the critically injured patient.

14. Speech Therapy Service: Speech therapy services to include personnel trained in speech therapy and equipped for acute care of the critically injured patient.

15. Social Services/Chaplain.

16. Organ Donation: The trauma service shall establish a protocol identifying potential organ donors as described in Title 22, Division 7.

17. Outreach Program: This program shall include the capability to provide both telephone and on-site consultations with physicians in the community and outlying areas and trauma prevention for the public.

TRAUMA EDUCATION:

1. Trauma Center Education:
   a. Multidisciplinary education SHALL be ongoing in all level II Trauma Centers. A minimum of sixteen (16) hours per year of trauma related CME/CE shall be provided by the Level II trauma center for physicians, nurses, allied health personnel, EMS personnel and other community physicians and health care personnel. Nurses who are involved in the trauma program shall have their educational needs identified and served. Cooperative arrangements with other facilities may enhance available educational programs and reduce unnecessary duplication.
   b. Trauma Grand Rounds and Trauma Management rounds are strongly recommended as an essential component of staff education in order to promote the forward movement of the patient throughout the trauma center in a consistent manner.

2. Trauma Team Continuing Education:
   a. Trauma Surgeons –
      - Successful completion of the ATLS Course, at least once, is required for all general surgeons on the trauma team. It is suggested that current ATLS status is maintained.
      - Eight (8) hours of trauma-related CME shall be obtained annually and may be documented over a three year period. During this three-year period, one-half of the trauma CME must be obtained outside the surgeon’s own facility. Programs given by visiting professors, physicians and invited speakers are considered outside education.
   b. ED Physicians -
      - Emergency medicine physicians who are board certified in emergency medicine are not required by the local EMS agency to complete an advanced trauma life support (ATLS) course.
Physicians not board certified in emergency medicine must complete an ATLS course. It is suggested that ATLS status is maintained.

Eight (8) hours of trauma-related CME shall be obtained annually and may be documented over a three-year period. During this three-year period, one-half of the trauma CME hours must be obtained outside the physician’s own facility. Programs given by visiting professors, physicians and invited speakers are considered outside education.

c. Emergency Department Trauma Nurses:

Successful completion of the Trauma Nurse Core Curriculum (TNCC) or a national equivalent is required for all emergency department nurses within one (1) year of hire.

(1) This national trauma certification shall be maintained by all nurses responding to the resuscitation of trauma patients from the field.

(2) Upon renewal of the TNCC or the national equivalent, a nationally recognized trauma certification that exceeds this minimum certification may be maintained in its place.

Current ACLS and PALS certification required within one (1) year of hire.

Six (6) hours of trauma-related continuing education shall be obtained annually and may be documented over a three-year period of time. During this three-year period, one-half of these hours must be obtained outside the nurse’s own facility. Programs given by visiting professors, physicians and invited speakers are considered outside education.

d. Critical Care Nurses:

Successful completion of the Trauma Nurse Core Curriculum (TNCC) or a national equivalent is required for all critical care nurses within one (1) year of hire.

(1) This national trauma certification shall be maintained by all nurses responding to the resuscitation of trauma patients from the field.

(2) Upon renewal of the TNCC or the national equivalent, a nationally recognized trauma certification that exceeds this minimum certification may be maintained in its place.

ACLS and PALS certification required within one (1) year of hire.

CCRN recommended.

Six (6) hours of trauma-related continuing education shall be obtained annually and may be documented over a three-year period of time. During this three-year period, one-half of these hours must be obtained outside the nurse’s own facility. Programs given by visiting professors, physicians and invited speakers are considered outside education.