I. PURPOSE
An EMT AED service provider is an agency or organization that employs individuals as defined in Section 100060 of the C.C.R., and who obtain AEDs for the purpose of providing AED services to the general public.

II. RELATED POLICIES


III. POLICY

A. Scope
An EMT AED service provider shall be approved by Marin EMSA (LEMSA), or in the case of state or federal agencies, the EMS Authority (EMSA), prior to beginning service. The Authority shall notify Marin EMSA of state or federal agencies approved as EMT AED service providers. In order to receive and maintain EMT AED service provider approval, an EMT AED service provider shall comply with the requirements of this section.

B. General
1. An EMT AED service provider approval may be revoked or suspended for failure to maintain the requirements of this section.
2. An EMT AED service provider applicant shall be approved if they meet and provide the following:
   (a) Provide orientation of AED authorized personnel to the AED;
   (b) Ensure maintenance of AED equipment;
   (c) Prior to January 1, 2002, ensure initial training and, thereafter, continued competency of AED authorized personnel;
   (d) Collect and report to the LEMSA where the defibrillation occurred, as required by the LEMSA but no less than annually, data that includes, but is not limited to:
      (1) The number of patients with sudden cardiac arrest receiving CPR prior to arrival of emergency medical care.
      (2) The total number of patients on whom defibrillatory shocks were administered, witnessed (seen or heard) and not witnessed; and
      (3) The number of these persons who suffered a witnessed cardiac arrest whose initial monitored rhythm was ventricular tachycardia or ventricular fibrillation.
   (e) Authorize personnel and maintain a current listing of all EMT AED service providers authorized personnel and provide listing upon request to the LEMSA or the Authority.
   (f) An approved EMT AED service provider and their authorized personnel shall be recognized statewide.
   (g) Authorized personnel means EMT personnel trained to operate an AED and authorized by an approved EMT AED service provider.
EMERGENCY MEDICAL DISPATCH

PURPOSE
To delineate requirements and practices for emergency medical dispatch and dispatchers with the goal of protecting the health and welfare of citizens and maximizing the availability and use of resources.

DEFINITIONS
A. Emergency Medical Dispatch is the practice of utilizing trained and certified personnel to receive and manage requests for emergency medical response using an approved emergency medical dispatch protocol reference system, and the provision of pre-arrival instructions to callers at the scene of a medical emergency and to dispatch appropriate levels of response according to pre-established guidelines.

B. Emergency Medical Dispatchers are persons who have completed an approved EMD training course, are EMD certified and employed by a designated EMD provider agency.

POLICY
A. The Marin County Sheriff's Office (MCSO), Communications Division, is the sole EMD provider within Marin County.

B. All “911” calls for medical assistance will be handled by currently certified Emergency Medical Dispatchers. In the event that a request for medical assistance is received via a local agency ‘business line’, the caller will be transferred or conferenced in to the Marin County Sheriff’s Office Communications Center. If it is not possible to transfer the caller, the person handling the call will confirm address, phone number and chief complaint. The person will then notify Marin County Sheriff’s Office Communications Center and provide the information to an EMD dispatcher. The MCSO dispatcher will attempt to call back the reporting party and start appropriate resources to the scene.

C. Dispatchers will utilize authorized protocols and procedures using the approved emergency medical dispatch protocol reference system to determine the recommended response or pre-arrival instructions. The dispatch center must use the most current EMD protocols available. When updated EMD protocols are available, the dispatch center shall have 1 year to implement the update.

D. Policies and procedures related to program approval, certification and recertification processes, dispatch guidelines, and quality assurance issues will be developed and monitored by the EMS Agency’s Medical Director in conjunction with the Sheriff’s Office Communications Division.

E. EMS aircraft will be dispatched in accordance with Policy 5100 “EMS Aircraft”.

Reviewed: April 2017
EMERGENCY MEDICAL DISPATCH CERTIFICATION

I. PURPOSE

To delineate the certification requirements for Emergency Medical Dispatchers.

II. POLICY

All medical "911" calls or requests for medically related assistance will be handled by persons trained in emergency medical dispatching and certified as Emergency Medical Dispatchers according to the standards established by the EMS Agency of Marin.

III. PROCEDURE

A. In order to certify as an Emergency Medical Dispatcher, the following requirements must be met:

1. Must be currently employed in the communications division of Marin County Sheriff's Office or San Rafael Fire Department.
2. Successfully complete an EMD training program approved by Marin County.
3. Complete eight (8) hours of ride-along time with an ALS provider in Marin County (if not part of training program).
4. Provide proof of current CPR certification according to the standards of the American Red Cross or American Heart Association.
5. Complete a Marin County application for EMD certification within six months of course completion.
6. Pay any fees required for certification. See "Fee Schedule".

B. Certification will be valid for two years with renewal contingent upon compliance with the recertification requirements established by the EMS Agency. See "Emergency Medical Dispatch Recertification" policy.

C. Challenge process

1. A person who can show proof of successful completion of a dispatcher training class of forty (40) hours within the last eighteen (18) months may apply for certification after completing the following:
   a. Marin County approved sixteen (16) hour class
   b. Four (4) hour ride-along experience with Marin County ALS provider
D. An EMT-I or EMT-P who wishes to certify as EMD may apply for certification after completing the Marin County approved sixteen (16) hour class.
EMERGENCY MEDICAL DISPATCH
RECERTIFICATION

I. PURPOSE

To delineate the recertification requirements for Emergency Medical Dispatchers.

II. POLICY

All medical "911" calls or requests for medically related assistance will be handled by persons trained in emergency medical dispatching and certified as Emergency Medical Dispatchers according to the standards established by the EMS Agency of Marin.

III. PROCEDURE

A. To recertify, the Emergency Medical Dispatcher must meet the following requirements:

1. Show proof of current CPR certification

2. Complete four (4) hours of ride-along time with an ALS provider in Marin County over the past two (2) years or four (4) hours observation in a base hospital ED.

3. Attend four (4) hours of paramedic tape review during the past two (2) years.

4. Attend a four (4) hour recertification class approved by the EMS Agency

5. Show proof of forty-eight (48) call audits using the audit report sheets during the past two years.
   a. Call audits may be done by more than one dispatcher at a time and all may receive credit for the review.
   b. Dispatchers are responsible for maintaining their own records of calls audited, but each audit sheet must be verified by the supervisor on duty.
   c. Audits must include at least two calls from each of the required audit categories

6. Submit proof of the above, with any required fees, to the EMS Agency prior to the expiration date of the certification.
EMERGENCY MEDICAL DISPATCH
TRAINING PROGRAM APPROVAL

I. POLICY

All Marin County approved Emergency Medical Dispatch Training programs must meet the minimum requirements as set forth in the Emergency Medical Services Authority "EMD Training Guidelines".

II. PROCEDURE

A. Training institutions requesting approval of their Emergency Medical Dispatch training program in Marin County must submit a request to the EMS Agency which shall include:

1. A statement of course objectives
2. Session guides or lesson plans
3. Performance objectives
4. Samples of written and skills examinations used for periodic testing, as appropriate
5. A final skills competency examination
6. A final written examination
7. The name and qualifications of the program director

B. Program approval or disapproval will be made by the EMS Agency in writing within 90 days of receipt of all required documentation.

C. Program approval will be for two (2) years.

D. All program materials are subject to periodic review.

E. All programs are subject to periodic on-site evaluation.

F. Persons or agencies conducting an approved EMD training program must notify the EMS Agency, in writing, within 30 days of any changes in the program.
EMERGENCY MEDICAL DISPATCH
QUALITY ASSURANCE

I. PURPOSE

To establish and define the quality assurance aspect of Emergency Medical Dispatch.

II. POLICY

A. General Monitoring

1. All calls handled by an EMD will be recorded and maintained on tape for 100 days.
2. Dispatch times will be recorded on all calls and maintained on database. Times will be reviewed monthly or as needed and will include the following:
   a. Call received
   b. Unit dispatched
   c. Unit is in service
   d. Unit arrival on-scene
   e. Unit en route to hospital
   f. Arrival at hospital
   g. Returned to service
   h. Canceled, if applicable

3. The Dispatch Supervisor is available for consultation at all times.
4. There shall be a quality assurance coordinator who is a physician, registered nurse, or paramedic.

B. Specific call review

1. 10% of all calls will be reviewed utilizing the "EMD Call Review Form"
2. Calls reviewed will include those from all shifts and all dispatchers
3. The following reviews are mandatory:
   a. Review requested by any EMS personnel
   b. Sequence card is used
   c. Code 2 dispatch returns to hospital Code 3
   d. Level of response is upgraded after dispatch
   e. MCI, HazMat or Disaster plans are utilized
   f. Call related to complaint received
4. Random subject audit determined quarterly by EMS agency and quality assurance coordinator
5. A current list of AO numbers of those calls reviewed will be maintained
TRAUMA SYSTEM

PURPOSE
To state general policies or principles that apply to the operation of the Trauma System and to the Trauma System policies and procedures contained in this section.

RELATED POLICIES
Trauma System Policies #4600-4618; EMS Aircraft, #5100; Determination of Death BLS 5, ATG 6; Traumatic Emergencies, BLS PR 5; Traumatic Injuries, T 1; Head Trauma, T2; Crush Injury, T3; EMS Communication, # 7000; Prehospital/Hospital Contact #7001; Do Not Resuscitate, GPC 07

DEFINITIONS
*Trauma System* refers to all aspects of care for injured patients set forth in the Marin County Trauma System Plan, approved by the California EMS Authority and implemented through contractual arrangements or policies and procedures detailed in this manual.

POLICY
A. The goal of the Trauma System Plan is to accomplish the following:
   1. To provide an organized, systematic approach to trauma care that is expected to result in a reduction of preventable death and morbidity.
   2. To enhance the delivery of trauma services to the residents of and visitors to Marin County.
   3. To encourage, through the use of an inclusive design model, the participation of all prehospital care providers and acute care facilities within the county, according to their corporate mission, their resources, and their commitment to the provision of quality trauma care.
   4. To promote physical and mental health and to prevent disease, injury and disability by providing equitable, high quality, appropriate and accessible health services to the community.

B. The Trauma System Plan will accomplish the above goals in the following manner:
   1. By utilizing prehospital triage criteria, facility standards and transfer criteria that are based on national and state models.
   2. By recognizing that a systemized approach to trauma care requires a multidisciplinary approach that acknowledges the importance of all those involved and engages them in the design and implementation of the system of care.
   3. By adopting policies, guidelines, and criteria that will provide for the coordination of all resources and ensure accessibility to the closest, most appropriate medical facility for all injured patients, regardless of the nature or severity of their injury or their ability to pay for such services.
   4. By establishing quality review processes and committees representing all involved disciplines to ensure a broad-based quality review of all trauma system activities.
   5. By regularly reviewing operations within the system and making appropriate adjustments as often as needed.
MARKETING AND ADVERTISING

PURPOSE

To define the ways in which marketing and advertising of Trauma System services may be done.

DEFINITIONS

A. *Marketing and advertising*, as it relates to Trauma System services, is defined to include providing any type of notification to the public that such services are available and/or attempting to solicit use of such services by the public.

POLICY

A. In accordance with the California Health and Safety Code, Division 2.5, Section 1798.165 (C), the use of the terms “trauma facility”, “trauma hospital”, “trauma center”, “trauma care provider”, “trauma vehicle”, or similar terminology in signs or advertisements or in printed materials and information furnished to the general public is prohibited unless authorized by the Marin County EMS Office.

B. All marketing and promotional plans with respect to trauma center designation shall be submitted for review and approval by the EMS Office prior to implementation.

C. Review of the plans shall be based on the following guidelines:
   1. Shall provide accurate information;
   2. Shall not include false claims;
   3. Shall not be critical of other providers; and
   4. Shall not include financial inducements to any providers or third parties.
SERVICE AREAS FOR HOSPITALS

PURPOSE
To define the service areas for hospitals within the Marin County Trauma System.

RELATED POLICIES
Trauma Triage and Destination Guidelines Policy, # 4613

DEFINITIONS
*Service Area* refers to the area from which acute care facilities will receive patients.

POLICY
All counties contiguous with Marin County have established Trauma Systems in place and will not utilize designated trauma facilities within Marin County as primary destinations for injured patients.

A. Conditions may exist at any given time that result in the delivery of injured patients to a Marin County designated facility by a provider originating their service in another county. Those conditions may include, but are not limited to the following:
   1. Circumstances requiring medical mutual aid
   2. Incidents impeding the usual flow of traffic and dictating a Marin County destination.

B. Patients who meet Trauma Triage Criteria will be transported to a trauma center, as indicated by the Trauma Triage and Destination Guidelines policy.
PATIENT TRANSFER AND TRANSPORTATION

PURPOSE
To provide guidance regarding the movement of injured patients from non-trauma facilities to trauma facilities and from one level of trauma facility to a different level of trauma facility and to review the availability of transportation for those purposes.

RELATED POLICIES
Interfacility Transfer, #GPC5; EMS Aircraft, #5100; Trauma Re-Triage, Adult and Pediatric, #4606A and #4606B;

DEFINITIONS
A. Non-trauma facilities are acute care facilities not holding a trauma center designation.
B. Trauma facilities are acute care facilities holding a trauma center designation of Level I, Level II, Level III or EDAT.

POLICY
A. All acute care facilities in Marin County, as part of an inclusive trauma system, will provide care to injured patients and participate in the Trauma System Plan.

B. Prehospital care personnel will evaluate trauma patients on initial contact and determine the appropriate destination based on the apparent severity of the injury, the location of the patient, the time to transport to definitive care and the availability of transport resources related to the location of the appropriate facility.

C. Patient transfer may be accomplished in one of the following ways:
   1. Transfer from a non-trauma facility to a trauma facility. To facilitate this type of patient transfer, a rapid re-triage for adults and pediatrics patients may be used (see 4606 A and B);
   2. Transfer from a trauma facility to a trauma facility with a higher level designation 4606 A and B may be used to identify the types of patients which may benefit from the transfer;
   3. Transfer after stabilization and initial care (per EMTALA regulations) to a like facility of the patient's choosing;
   4. Transfer after definitive care (per EMTALA regulations) to a non-trauma facility for on-going care. The transfer of patients from one facility to another must be based upon medical treatment decisions and not in whole or in part on the patient's financial or social status or their ability to pay for care or services. Decisions to transfer the patient at their request or the request of their insurer must, at all times, be made in a manner consistent with good medical practice.

E. As the lead agency, the Marin County EMS Agency will initiate and maintain contracts with Level I, Level II and specialty care facilities on behalf of the Marin County Trauma System Plan.
   1. All contracts arranging for care of patients injured in Marin County will include provisions for the establishment of transfer guidelines indicating the type of patients or injuries anticipated to be transferred under the terms of the agreement.
   2. Marin County facilities are required to have transfer agreements and to specify the type of patient or injury to be transferred under the terms of the agreement.
3. Additional transfer agreements must include provisions assuring that required trauma data is provided to the transferring facility to complete data collection and quality improvement processes.

F. In all instances of patient transfer, it is the responsibility of the transferring facility to assure the following:
   1. That the transfers occur in accordance with all state and federal laws and regulations;
   2. That all pertinent patient records are transferred with the patient;
   3. That the receiving facility and receiving physician have accepted the patient;
   4. That the method of transfer is appropriate to the needs of the patient at the time that the transfer occurs; and
   5. Arranging appropriate transportation for the patient

G. If expected patient care is within Paramedic Scope of Practice and timely transfer is needed, contact 9-1-1 to request *Emergency Interfacility Transfer*. If expected patient care exceeds Paramedic Scope of Practice, contact appropriate transport agencies (CCT Transport) or arrange for nursing staff and/or MD to accompany paramedic or EMT during transport to the receiving facility.
   1. Patients being transferred should receive, during the transport, a level of care and attention equivalent to the level of care necessary before and following the transfer.
   2. Level of care refers to the type of equipment and supplies needed and to the level of expertise of caregivers.
TRAINING OF TRAUMA SYSTEM PERSONNEL

PURPOSE
To define trauma-related training required for Trauma System personnel to assure a universal understanding of expectations within the Trauma System.

RELATED POLICIES
Paramedic Accreditation/Continuous Accreditation, #3300

POLICY
A. Trauma System Orientation is a required component of Provider Agency/Hospital orientation, and should include:
   1. All prehospital personnel
   2. All pertinent hospital personnel (ED physicians, ED staff, ICU staff, etc.);
   3. All 911 Medical Dispatchers;
   4. Content should include the following: Trauma-related scene management, utilization of resources, evaluation of trauma patients, determination of appropriate destination using the Trauma Triage and Destination Guideline policy (#4613), trauma resuscitation, trauma team response, and all other system policies and operational changes associated with the Trauma System Plan.

B. Trauma-related classes or certifications for nurses or physicians are required and considered part of the contractual agreement for designation.

C. The responsibility for assuring training of all appropriate personnel is the responsibility of the employing agency.

D. Facilities and agencies contracted/designated to provide trauma services will provide training to employees. Training can be accomplished via high fidelity and/or in vivo simulation scenario training. Facilities requesting a change in the type of training may petition the EMS Agency for a specific change. The requesting facility must provide the rationale, evidence for the requested change, and the proposed curriculum for the EMS Agency to review and approve.
JURISDICTIONAL COORDINATION

PURPOSE
To summarize the coordination with surrounding jurisdictions, facilitating integration of this developing trauma system with established or developing trauma systems in other counties.

RELATED POLICIES
Medical Mutual Aid, #5200; GG Bridge Response Policy, #5300

POLICY
A. The Marin County Trauma System Plan utilizes Level I, Level II, and specialty centers as well as air transport resources located in other jurisdictions.
   1. The Marin County EMS Agency develops and implements contractual arrangements with facilities in other jurisdictions.
   2. Existing operations of air ambulance providers are reviewed to assure they are appropriate.
B. Marin County EMS Agency works with other LEMSAs to assure that the needs of their patients are met and that they have access to the closest appropriate facility.
C. Consistent with the Marin County Trauma System Plan, cooperative follow-up and data collection will occur to assure that all patient care is reviewed through a comprehensive quality improvement program and that trauma systems in all jurisdictions have access to complete information on their patients.
COORDINATION WITH NON-MEDICAL EMERGENCY SERVICES

PURPOSE
To ensure that all non-medical emergency service providers are informed of the trauma system plan as it relates to their agency or organization.

DEFINITION
Non-medical Emergency Services (e.g., law enforcement agencies), for the purposes of this policy, shall mean any agency or organization that is not a provider of prehospital BLS or ALS services and is not providing service through a hospital that receives trauma patients.

POLICY
A. The Marin County EMS Agency ensures that all appropriate agencies are provided with a current copy of the Trauma System Plan and all policies and procedures created to implement that plan.

B. Appropriate agencies and organizations participate on relevant countywide trauma related committees to assure participation of all stakeholders in decisions related to ongoing operation of the trauma system.

C. Staff will offer to meet with all agencies or organizations to review the system and to answer questions regarding potential impact on their operations.

D. Efforts will occur, on a regularly scheduled basis, to provide public information about the trauma system and to involve agencies or organizations with interest in the process.
TRAUMA SYSTEM FEES

PURPOSE
To outline a fee structure to cover the direct costs of the designation process, effective monitoring and evaluation of the trauma care system.

POLICY
A. The Marin County Trauma System Plan stipulates that each participating agency will be required to make the commitments necessary to achieve the desired system and will individually fund or seek funding to support the necessary activities.

B. Additionally, the cost of providing survey teams will be met with fees paid by hospitals seeking and maintaining designation. These nonrefundable fees will be as follows:
   1. Fees for the Level III facilities will be $30,000 per year.
   2. Fees for EDAT facilities will be $5,000 per year.

C. If the fees collected exceed the amount needed for periodic inspection and designation, the excess will be used to offset the cost of the Trauma System Program to County.

D. Implementation and maintenance of the Trauma System Plan requires a part-time Trauma Coordinator as part of the EMS Agency staff.
MEDICAL CONTROL AND ACCOUNTABILITY

PURPOSE
To describe medical control of activities needed to provide care to patients with traumatic injuries.

RELATED POLICIES
Trauma Triage and Destination Guidelines, #4613; Traumatic Injuries, T1

POLICY
A. The Marin County EMS Agency Medical Director is the qualified physician contracted to provide services by the County of Marin and is responsible for medical direction of the overall Marin County EMS system.

B. The Provider Medical Director is the qualified physician contracted or hired by a hospital or ALS provider agency to oversee medical quality issues within that agency according to that agency’s approved Quality Improvement Plan.

C. Medical control and accountability of the prehospital portion of the system will continue as currently configured.

D. As part of an inclusive Trauma System, all acute care hospitals in Marin County who receive ambulances will receive injured patients and will participate in the Marin County Trauma System in one of the following ways:
   1. As a designated trauma center or
   2. As a receiving facility for injured patients who do not meet trauma triage criteria.

E. All acute care hospitals in Marin County who receive ambulances will participate in trauma data collection and the Trauma Continuous Quality Improvement Process according to terms contained in their contract for services with the County of Marin.

F. All acute care hospitals in Marin County who receive ambulances will comply with the medical control standards as established by Marin County EMS Agency.
TRAUMA TRIAGE AND DESTINATION

PURPOSE
To provide additional explanation and guidance for the Marin County Trauma Triage Criteria Tool to help identify trauma patients in the field and, based upon their injuries, direct their transport to an appropriate level of trauma care facility.

RELATED POLICIES
Service Area for Hospitals, #4603; Trauma Re-Triage, Adult and Pediatric, 4606A and 4606B; EMS Aircraft, #5100; Ambulance Diversion Policy, #5400; Destination Guidelines, GPC 4; Determination of Death, ATG 6; Multi-Casualty Incident, GPC 12

DEFINITIONS
A. **Designated Trauma Center** refers to an acute care facility holding designation as a Level I, Level II, Level III, or EDAT (Emergency Department Approved for Trauma). In Marin County, Marin General Hospital is the designated Level III Trauma Center and Kaiser Permanente San Rafael Medical Center is the designated EDAT.

B. **Provide Trauma Notification** means that field personnel will advise the trauma center as soon as possible of their impending arrival by providing a Trauma Notification (see Trauma Triage Tool).

C. **Time closest facility** is that facility which can be reached in the shortest amount of time.

GENERAL POLICY
A. It is the overall goal of the Marin County Trauma System to provide treatment of injured patients at Marin County hospitals.

B. Whenever physician consultation is indicated within this policy, contact shall be made with Marin General Hospital Level III Trauma Center.

C. The following policy statements pertain to use of the Trauma Triage Tool (see 4613a):
   1. Patients shall be determined to meet criteria for transport to a designated trauma center if they meet the criteria listed in the Trauma Triage Tool.
   2. Physician consultation is REQUIRED in the following circumstances:
      a. The paramedic is unable to transport the patient to the indicated facility in an expedient manner;
      b. The paramedic assesses the patient and scene conditions and believes transport to a different level of care is indicated;
      c. Patient requests a facility not indicated by the Trauma Triage Criteria Tool.
   3. Physician consultation is RECOMMENDED whenever assistance in resolving treatment decisions or transport destinations is desired.
   4. Unmanageable airway: Patients with airway compromise unmanageable by BLS or ALS adjuncts will be transported to the closest receiving facility.
   5. Traumatic Arrest: Determination of death can be made prior to, or immediately after, initiating resuscitation if:
      a. a patient has sustained blunt, penetrating or profound multi-system trauma with asystole or PEA, *OR*
      b. In an MCI incident where (START) triage principles preclude initiation of CPR
D. **Destination for Adult** patients who meet Physiologic or Anatomic Criteria:
   
   1. Transport to time closest trauma center.
   2. If the estimated ground transport time to the closest trauma center exceeds 30 minutes, consider use of air ambulance.
      a. Estimated ground transport time is evaluated from the time the patient is packaged and ready for transport. Consider traffic conditions, weather, and other relevant factors.
      b. Estimated air transport time includes: minutes until arrival (if helicopter is not already on the ground); scene and load time of flight crew (typically 10 minutes); flight time to trauma center; and off-load time (typically 7-10 minutes). If helicopter is on the ground at the time the patient is ready for transport, then air transport time is evaluated as time to load, flight time to trauma center and time to off-load to the ED.

E. For adult patients meeting mechanism of injury or additional factors criteria, transport to Marin General Hospital.

F. **Destination for Pediatric** patients who meet Physiologic or Anatomic Criteria:
   
   1. Transport directly to Children’s Hospital Oakland (see Trauma Triage Tool).
   2. If ETA (transport time) is anticipated to be >30 minutes, physician consultation should be obtained with the Level III trauma center to determine destination.

G. Incidents involving **three or more patients meeting Physiologic or Anatomic Criteria** will be handled in the following manner:
   
   1. Use of air ambulance should be considered.
   2. Prehospital providers shall consult with the Level III trauma center regarding destinations.
   3. Patients that the Level III trauma center cannot accept should be transported to an out-of-county Level I or II trauma center in the most appropriate and expedient manner.
   4. If an incident is a Multi-Casualty Incident (MCI), prehospital providers will utilize the Multiple Patient Management Plan for destination guidelines. The term “Immediate Trauma Patient” will be used to describe an MCI patient that may need the services of a trauma center. The coordinating hospital should consider the capacity at the local and regional trauma centers when making destination decisions.

H. The EDAT will be used for patients meeting mechanism of injury or additional factors trauma criteria that Level III trauma center is unable to accept.
MARIN COUNTY TRAUMA TRIAGE TOOL
Adult Patients (age 14 and older)

Uncontrolled Airway
Transport to closest Emergency Department

Assess for – Major Physiologic Factors
1. Glasgow Coma Scale ≤13 (attributed to traumatic head injury)
2. Systolic blood pressure (mmHg) <90 mm Hg
3. Respiratory rate <10 or >29 breaths per minute

Provide Trauma Notification & Transport to Time Closest Trauma Center: Marin General Hospital by ground, or Level II by air.

YES NO
Assess Anatomic Factors

Assess for – Major Anatomic Factors
1. Penetrating injuries to head, neck, torso, or extremities proximal to elbow or knee
2. Flail chest
3. Two or more proximal long-bone fractures
4. Crushed, degloved, mangled or amputated extremity proximal to wrist or ankle
5. Pelvic fractures
6. Open or depressed skull fracture
7. Paralysis (partial or complete)
8. Burns with anatomic factors

Provide Trauma Notification & Transport to Time Closest Trauma Center: Marin General Hospital by ground, or Level II by air.

YES NO
Assess Mechanism of Injury Factors

Assess for – Mechanism of Injury Factors
1. Falls
   - Adults >20 feet (one story is equal to 10 feet)
   - Children >10 feet or three times the height of the child
2. High-risk auto crash and
   - Passenger space intrusion >18” (>12” occupant site)
   - Ejection (partial or complete) from automobile
   - Death in same passenger compartment
3. Auto vs. pedestrian or auto vs. bicyclist: thrown, run over, or with >20 mph impact
4. Motorcycle or bicycle crash: thrown and > 20 mph impact
5. Burns with MOI factors

Provide Trauma Notification & transport to Marin General Hospital Trauma Center

YES NO
Assess Additional Factors

Assess for – Additional Factors
Does assessment of additional factors (e.g. age > 65, anticoagulant use, antiplatelet use, bleeding disorders with head/torso injury, pregnancy >20 weeks, etc.) or other complaints or exam findings cause paramedic to be concerned about the patient?

Provide Trauma Notification & Transport to Marin General Hospital Trauma Center

YES NO
Transport to closest ED or ED of patient’s choice
Assess for – Major Physiologic Factors

1. Glasgow Coma Scale ≤13 (attributed to traumatic head injury)
2. Systolic BP < 80 mm Hg – age 7-14
3. Systolic BP < 70 mm Hg – age < 7
4. RR < 20 in infants age less than one year, or requiring ventilatory support

Assess for – Major Anatomic Factors

1. Penetrating injuries to head, neck, torso, or extremities proximal to elbow or knee
2. Flail chest
3. Two or more proximal long-bone fractures
4. Crushed, degloved, mangled or amputated extremity proximal to wrist or ankle
5. Pelvic fractures
6. Open or depressed skull fracture
7. Paralysis (partial or complete)
8. Burns with anatomic factors

If positive A/P findings, Transport to Oakland Children’s Hospital if ETA 30 min. or less, otherwise transport to Marin General Hospital and provide Trauma Notification

YES  NO

Follow assessment for MOI and Additional Factors on page 1 for Adult Trauma Patients

SPECIAL CONSIDERATIONS

1. The clinical findings, including past medical history, are critical to identifying the trauma patient, especially when assessing Mechanism of Injury (MOI) and Additional factors (AF).
2. A thorough clinical assessment is especially important in:
   • Patients with persistent & unexplained respiratory difficulty, tachycardia, or peripheral vaso-constriction;
   • Any patient <5 yrs of age who has suffered major trauma but for whom it is not possible to fully determine physiologic status;
   • Inability to communicate (e.g., language barrier, substance or psychiatric impairment)
3. There are mechanisms of injury not identified in the Trauma Triage Tool that may be associated with trauma. Any fall or impact with significant velocity is likely to produce a candidate for trauma activation.

TRAUMA NOTIFICATION

Field personnel will advise the trauma center a minimum of 10 minutes prior to arrival (or as soon as possible if transport is < 10 minutes) by providing a Trauma Notification. This information will be used to activate the trauma team. Communication with the hospital via MERA is preferred. The notification must include at a minimum the following information:

1. Medic Unit and Transport Code
2. Trauma Notification
3. Age / Gender
4. M - Mechanism of Injury (e.g., MVA, fall, stab wound, gunshot wound)
5. I - Injury and/or complaints; significant injuries and findings
6. V - Vital Signs; blood pressure, pulse, respiratory rate, GCS
7. T – Treatment / interventions
8. ETA

Trauma Center consultation is recommended for questions about destinations for injured patients.
TRAUMA CENTER DESIGNATION PROCESS

PURPOSE
To outline the process for achieving designation as a trauma center in Marin County.

POLICY
A. Initial Designation Process in Marin County
   1. Marin County EMS Agency will designate trauma centers in Marin County.
   2. Facilities providing Level I, Level II and other pediatric trauma services will be contracted by Marin County to provide those services within the system.
      a. County of origin designations will be accepted.
      b. Only designated facilities will be utilized.

B. Subsequent designations
   1. Facilities not seeking designation during the initial process and electing to do so at a later date must do the following:
      a. Submit a letter of intent to seek designation to the Marin County EMS Agency and pay the required fee in the manner set forth in the original RFP no sooner than twelve (12) months following completion of the initial designation process.
      b. Meet all standards and requirements set forth in the original RFP at time of site inspection.
   2. Out of county facilities wishing to participate should notify Marin County EMS Agency in writing of their desire to contract to provide services within the Marin County Trauma System.
QUALITY IMPROVEMENT AND SYSTEM EVALUATION

PURPOSE
To summarize the Quality Improvement and System Evaluation Processes specific to the Trauma System.

RELATED POLICIES
Quality Improvement, Provider Agency Responsibilities, #2004; Prehospital Care Record Audit, #2005
EMS Event Reporting Form, #2010; Trauma Data Collection and Management, #4615

POLICY
A. The Marin County EMS Agency Continuous Quality Improvement plan establishes a program that monitors, assesses, and manages trauma care and system issues. Care provided is monitored on an ongoing basis and the system will be adjusted periodically, as deemed appropriate, to assure the provision of quality trauma care and minimize mortality and morbidity resulting from injury.

B. Marin County will use its current CQI processes to review care rendered in the prehospital setting. This process includes the following:
   1. All providers have an approved Quality Improvement Program in place.
   2. All ALS providers and hospitals have a designated Medical Director.
   3. Data audit reports that identify records which fall outside of defined parameters.
   4. Trauma Advisory Committee (TAC) meets twice a year to review system issues, report data, and discuss quality improvement activities.

C. Hospital Trauma Care and System Review:
   1. Hospitals with a trauma designation are required to have an internal performance improvement plan and committee review process for reviewing trauma cases and internal trauma system issues. The committee review process will be multidisciplinary and will include the EMS Agency Medical Director and EMS Agency Trauma Coordinator. Hospitals will review process and outcome measurements of trauma care on a regular basis. The following trauma cases will be reviewed by the Hospital Performance Improvement Committee:
      a. All deaths
      b. Cases identified by the registry audit filter profiles (process/outcome measurements)
      c. Cases requested by the EMS Agency
      d. Cases requested by the provider agency
   2. All hospitals with a trauma designation are required to maintain data collection utilizing the trauma registry.

D. Trauma System CQI Committee
   1. The Trauma Advisory Committee will meet twice a year and be hosted by the EMS Agency.
   2. Membership may include but not be limited to:
      a. EMS Agency Medical Director and Trauma Coordinator
b. Trauma Directors: all hospitals

c. Trauma Coordinators: all hospitals

d. Emergency Department Director or designee: all hospitals

e. Provider Medical Director or Designee

f. Paramedic Liaison(s)

3. All cases presented at the Trauma Advisory Committee will be reviewed at a minimum for the following:

   a. Identification of any system issues
   
   b. Identification of system improvement opportunities and follow up
   
   c. Opportunity for education and training

4. Attendance for the Trauma Medical Directors and the Trauma Nurse Coordinators is mandatory. All requests for guest speakers or presentations must be approved by the EMS Agency Medical Director prior to the meeting.
TRAUMA SYSTEM ORGANIZATION AND MANAGEMENT

PURPOSE
To define the organization and management of the Trauma System.

POLICIES
A. As the lead agency for the Marin County EMS System, the EMS Program, within the Division of Health Services, the Department of Health and Human Services, is responsible for planning, implementing, and managing the trauma care system. These responsibilities include the following:

1. Assessing needs and resource requirements;
2. Developing the system design, including the number of trauma centers and patient flow patterns;
3. Assigning roles to system participants, including designation of trauma centers;
4. Working with designated centers and neighboring EMS systems regarding outreach and mutual aid;
5. Developing a trauma data system, including a trauma registry at trauma centers and participation in regional trauma and prehospital data collection;
6. Monitoring the system to verify compliance with appropriate state and local laws and regulations, local EMS Policies and Procedures and contractual arrangements;
7. Evaluating the impact of the EMS and trauma system and revising the system design as needed.

B. The Marin County EMS Trauma Coordinator oversees the implementation of the Trauma System Plan and coordinates monitoring activities within the Trauma System. Other program staff also participate in system monitoring, evaluation and problem solving activities.

C. Trauma System issues are monitored and evaluated utilizing the CQI process outlined in the Trauma System plan, and include:

1. Routine Patient Care Record audits
2. Provider Quality Improvement Plans