

**Solano Emergency Medical Services Cooperative**

**Board of Directors Meeting**

**Meeting Date: 5/5/2016**

**I. REPORTS**

- a. SEMSC Medical Director's Report (verbal update, no action)**  
Solano EMS policies and protocols are available on the internet at <http://www.co.solano.ca.us/depts/ems/>
- b. EMS Administrator's Report (verbal update, no action)**
  - a. General Update
  - b. System Performance
  - c. System Updates
  - d. Announcements
- c. Medic Ambulance Operator Report (verbal update, no action)**

**Solano Emergency Medical Services Cooperative**

**Board of Directors Meeting**

**Meeting Date: 5/5/2016**

**II. REGULAR CALENDAR**

**a. Presentation by Medic Ambulance on Community Paramedicine Project**

**BACKGROUND:**

On November 14, 2014, the California Emergency Medical Services Authority (EMSA) received approval from the Office of Statewide Health Planning and Development (OSHPD) to pilot Community Paramedicine in 12 sites across California. EMSA states that community paramedicine (CP) is a new and evolving model of community-based health care in which paramedics function outside their customary emergency response and transport roles in ways that facilitate more appropriate use of emergency care resources and/or enhance access to primary care for medically underserved populations. CP programs typically are designed to address specific local problems and to take advantage of locally developed linkages and collaborations between and among emergency medical services (EMS) and other health care and social service providers and, thus, are varied in nature. Interest in community paramedicine has substantially grown in recent years based on the belief that it may improve access to and quality of care while also reducing costs. Each pilot site has a different focus of care.

Medic Ambulance and Solano County is one of the pilot sites, and the local focus is on patients with Chronic Obstructive Pulmonary Disease (COPD) and Congestive Heart Failure (CHF).

At the January 14, 2016 SEMSC Board Meeting, during the Contractor's Report portion of the meeting, Medic Ambulance was invited by the Board to present an update on the project.

**Solano Emergency Medical Services Cooperative**

**Board of Directors Meeting**

**Meeting Date: 5/5/2016**

**II. REGULAR CALENDAR**

**b. Consider Approval of Annual SEMSC Budget/Revenue Allocation Plan for FY 2016/2017 and Adoption of Resolution Number 16-001**

**BACKGROUND:**

The SEMSC was established as a Joint Powers Authority in February 1996. In accordance with Article VIII of the Joint Powers Authority Bylaws, adopted on June 26, 2002, staff is presenting for Board approval and adoption the Annual SEMSC Budget/Revenue Allocation Plan for FY 2016/2017, in the amount \$2,575,317.00 along with Resolution Number 16-001 (Exhibit II-B). The Budget/Revenue Allocation Plan provides appropriate staffing and supplies for the work of SEMSC to be carried-out during the coming fiscal year and allocates sufficient funds for expenses related to SEMSC operations.

Also included in the Budget/Revenue Allocation Plan is \$1,470,700.00 in funds that are anticipated to be passed through SEMSC from the Exclusive Operating Area provider (Medic Ambulance) to participating Emergency Medical Services partners (Cities of Benicia, Dixon, Fairfield, and Vallejo).

**LEGAL SUFFICIENCY:** This item has been reviewed by County Counsel.

**BOARD ACTION:**

Motion:

By: \_\_\_\_\_ 2<sup>nd</sup>: \_\_\_\_\_

AYES:

NAYS:

ABSENT

ABSTAIN



## Recommended Budget for Fiscal Year 2016/17

Salaries & Benefits (6.0 FTE)	\$	628,590
<i>Includes net wages, employer-paid payroll, and benefit expenses</i>		
Services & Supplies	\$	1,846,927
<i>\$1,470,700 in Public/Private Partnership (PPP) pass-through payments to City of Benicia, City of Dixon, City of Fairfield, and City of Vallejo;</i>		
<i>\$214,500 for software, Medical Director, subject matter experts, and trainer contracts;</i>		
<i>\$9,295 travel and training expenses;</i>		
<i>operational expenses, etc.</i>		
Transfers outside H&SS fund	\$	27,949
<i>\$24,823 SEMSC share of countywide overhead charges;</i>		
<i>\$1,500 postage charges;</i>		
<i>custodial and records storage from other county departments</i>		
Transfers within H&SS fund	\$	71,851
<i>H&amp;SS overhead (administration, facility, etc.)</i>		
<b>Total Expenses</b>	<b>\$</b>	<b>2,575,317</b>
<hr style="border: 1px solid black;"/>		
Licenses, Permits & Franchise	\$	1,053,288
<i>\$500,000 ALS EOA Ambulance franchise fee;</i>		
<i>\$462,288 Trauma Center, STEMI Center, EDAP, etc., business licenses;</i>		
<i>\$15,000 Paramedic and EMT personnel certification;</i>		
<i>\$76,000 Ambulance Operating permits, CCT</i>		
Fines, Forfeitures, Penalties & Assessments	\$	50,160
<i>\$50,160 penalties;</i>		
Pass Through Revenue	\$	1,470,700
<i>Public/Private Partnership (PPP) pass-through revenue for City of Benicia (\$170,649), City of Dixon (\$119,378), City of Fairfield (\$510,269), and City of Vallejo (\$670,374);</i>		
Revenue From Use Of Money/Property	\$	1,169
<i>Includes net interest on deposit</i>		
<b>Total Revenues</b>	<b>\$</b>	<b>2,575,317</b>
<hr style="border: 1px solid black;"/>		

## **Solano Emergency Medical Services Cooperative**

### **Board of Directors Meeting**

**Meeting Date: 5/5/2016**

## **II. REGULAR CALENDAR**

### **c. Adopt Resolution 16-002 Establishing Specialty Care Center & Air Ambulance Standards**

#### **BACKGROUND:**

During the October 2014 Board Meeting, the SEMSC Board approved a contract with Page, Wolfberg and Wirth, LLC to review operations and oversight of designated Specialty Care Centers (SCC) and Air Ambulance services, and if warranted, to develop a written resolution addressing the responsibilities and practices of the SEMSC with regard to oversight of designated hospitals, base stations or alternative base stations, and air ambulance providers that have received designation by the SEMSC.

The EMS Administrator at that time explained that since 2011 the number of SEMSC designated SCCs has exponentially increased. SEMSC has designated Trauma Centers, ST Elevation Myocardial Infarction (STEMI) Receiving Centers (SRCs), and Emergency Departments Approved for Pediatrics (EDAP), as well as Base Hospitals. It was added that existing SEMSC policies, procedures, agreements, and resolutions for locally designated SCCs provide a framework of the standards for designation, as well as the requirements to maintain designation. However, due to the California Emergency Medical Services Authority (EMSA) beginning to develop statute and legislation associated with SCC designations, it became necessary to evaluate current local standards to ensure alignment with EMSA and that the latest best practices and cutting edge research are incorporated into SEMSC policies, procedures, agreements and resolutions to achieve the highest level of care and treatment for Solano County residents. Page Wolfberg and Wirth, LLC was tasked with reviewing the existing SEMSC documents, which include current policies, procedures, and protocols. The goal is to ensure that the SEMSC and EMS Agency is providing appropriate oversight and guidance for designated centers.

Doug Wolfberg of Page, Wolfberg & Wirth held an initial meeting with all stakeholders in July 2015 to discuss the applicability of the project and the primary objectives of drafting a resolution for the SCCs and Air Ambulance partners. A draft resolution was then circulated to the stakeholders for comment. Another meeting was held in early November 2015 to discuss the proposed resolution and obtain comments from stakeholders. Comments were evaluated and incorporated and the proposed resolution was circulated to the stakeholders in early December 2015. A draft resolution was presented to the SEMSC Board at the January 2016 meeting. This proposed resolution was sent back to staff for revision. A copy of the proposed Resolution 16-002 with the amendments as directed by the Board is attached as Exhibit II-C.

**Solano Emergency Medical Services Cooperative**

**Board of Directors Meeting**

**Meeting Date: 5/5/2016**

**II. REGULAR CALENDAR**

- c. Adopt Resolution 16-002 Establishing Specialty Care Center & Air Ambulance Standards**

**LEGAL SUFFICIENCY:** This item has been reviewed by County Counsel.

**BOARD ACTION:**

Motion:

By: \_\_\_\_\_ 2<sup>nd</sup>: \_\_\_\_\_

AYES:

NAYS:

ABSENT

ABSTAIN

RESOLUTION NO. 16-002**RESOLUTION OF THE SOLANO EMERGENCY MEDICAL SERVICES  
COOPERATIVE REQUIRING OVERSIGHT OF BASE HOSPITALS, ALTERNATIVE  
BASE STATIONS, HOSPITALS THAT HAVE RECEIVED SPECIALTY CENTER  
DESIGNATION, AND AIR AMBULANCE SERVICES**

**WHEREAS**, the Solano Emergency Medical Services Cooperative (“SEMSC”) serves as the local emergency medical services (“EMS”) agency for Solano County; and

**WHEREAS**, pursuant to California Health & Safety Code §§ 1797.67 and 1797.90, as the local EMS agency (“LEMSA”) for Solano County, SEMSC, is responsible for the medical control of the Solano County EMS System, and

**WHEREAS**, exercising medical control of the Solano County EMS System means directing and managing the Solano County EMS System pursuant to the provisions of Chapter 5 of the California Health & Safety Code, commencing with California Health & Safety Code § 1798; and

**WHEREAS**, pursuant to California Health & Safety Code § 1798(a) and (b), the medical direction and management of the Solano County EMS System are under the control of the SEMSC Medical Director, which control must comply with minimum standards adopted by the California EMS Authority (“Authority”), as established and implemented by SEMSC; and

**WHEREAS**, SEMSC has, through a competitive process, awarded an exclusive agreement for all ALS ambulance services throughout an Exclusive Operating Area, including all 911 requests (but excluding those requests originating from within the City of Vacaville and Travis Air Force Base) and all ALS interfacility transport requests in Solano County and which prohibits any other person or entity from providing ALS ambulance service in the County, excluding critical care transports (“CCTs”)

**WHEREAS**, California Health & Safety Code §§ 1797.67 and 1798.100 authorize SEMSC to designate and contract with hospitals to serve as base hospitals, to designate and contract with facilities or services to serve as alternate base stations, and to designate hospitals to perform specified EMS system functions; and

**WHEREAS**, California Health & Safety Code §§ 1798.2 and 1798.100 require base hospitals and alternate base stations to implement policies and procedures established by SEMSC, as approved by the SEMSC Medical Director; and

**WHEREAS**, responsibilities of base hospitals and, generally alternate base stations, include, but are not limited to, supervising prehospital treatment, triage and transport, and ALS monitoring program compliance by direct medical supervision, and providing or causing to be provided, training and continuing education for prehospital personnel in accordance with SEMSC’s policies and procedures; and

**WHEREAS**, a hospital designated by SEMSC to perform specified EMS functions is to perform those functions pursuant to guidelines established by the Authority and medical management and direction through standards established and implemented by SEMSC; and

**WHEREAS**, SEMSC has implemented a trauma system and hospitals designated by SEMSC to serve as trauma facilities are to adhere to policies and procedures established by SEMSC which must be consistent with and may be more stringent than the minimum trauma system standards adopted by the Authority; and

**WHEREAS**, pursuant to Title 22 California Code of Regulations § 100300(b), SEMSC may establish a program for the integration of aircraft and their personnel into its prehospital EMS patient transport system, and in doing so adopt policies and procedures as authorized in Title 22 California Code of Regulations § 100304.

**NOW, THEREFORE, IT IS RESOLVED** that:

1. **Definitions.** For purposes of this Resolution the following words and terms have the following meanings unless the context clearly indicates otherwise:

**Advanced Life Support (ALS).** Special services designed to provide definitive prehospital emergency medical care, including, but not limited to, cardiopulmonary resuscitation, cardiac monitoring, cardiac defibrillation, advanced airway management, intravenous therapy, administration of specified drugs and other medicinal preparations, and other specified techniques and procedures administered by authorized personnel under the direct supervision of a Base Hospital as part of a local EMS system at the scene of an emergency, during transport to an acute care Hospital, during interfacility transfer, and while in the emergency department of an acute care Hospital until responsibility is assumed by the emergency or other medical staff of that Hospital.

**Alternative Base Station.** A facility or service operated and directly supervised by a physician and surgeon who is trained and qualified to issue advice and instructions to prehospital emergency medical care personnel, which has been approved by the SEMSC Medical Director to provide medical direction to ALS personnel responding to a medical emergency as part of the local EMS system, when no Base Hospital is available to provide that medical direction.

**Air Ambulance.** Any rotor aircraft specially constructed, modified or equipped, and used for the primary purposes of responding to emergency calls and transporting critically ill or injured patients whose medical flight crew has at a minimum two (2) attendants certified or licensed in ALS.

**Air Ambulance Provider.** A provider of air ambulance service that has been issued an Air Ambulance Provider permit by SEMSC.

**Authority.** The California Emergency Medical Services Authority.

**Base Hospital.** A Hospital which, upon designation by SEMSC and upon the completion of a written contractual agreement with SEMSC, is responsible for directing the ALS system and prehospital care system assigned to it by SEMSC.

**County.** The County of Solano.

**Designated Facility.** A Hospital which has been designated by SEMSC to perform specified EMS systems functions pursuant to guidelines established by the Authority and standards established by SEMSC.

**Emergency Department Approved for Pediatrics (EDAP).** A basic emergency department that is approved by SEMSC to receive pediatric patients from the 9-1-1 system by having met standards established by SEMSC through policies, procedures and protocols, for professional staff, quality improvement, education, support services, equipment, supplies and medications.

**EMS.** Emergency medical services.

**Hospital.** A health care facility licensed as a Hospital by the California Department of Public Health.

**LEMSA.** Local Emergency Medical Services Agency.

**Level I Trauma Center.** A Hospital accredited by the Joint Commission on Healthcare Organizations that has been designated as a Level I Trauma Center by a LEMSA pursuant to Articles 2 and 5 of the California Health & Safety Code and Title 22 California Code of Regulations § 100254. Verification of Level I trauma center status by the American College of Surgeons does not constitute designation by a LEMSA as a Level I trauma center.

**Level II Trauma Center.** A Hospital accredited by the Joint Commission on Healthcare Organizations that has been designated as a Level II Trauma Center by a LEMSA pursuant to Articles 2 and 5 of the California Health & Safety Code and Title 22 California Code of Regulations § 100254. Verification of Level II trauma center status by the American College of Surgeons does not constitute designation by a LEMSA as a Level II trauma center.

**Level III Trauma Center.** A Hospital accredited by the Joint Commission on Healthcare Organizations that has been designated as a Level III Trauma Center by a LEMSA pursuant to Articles 2 and 5 of the California Health & Safety Code and Title 22 California Code of Regulations § 100254. Verification of Level III trauma center status by the American College of Surgeons does not constitute designation by a LEMSA as a Level III trauma center.

**Level IV Trauma Center.** A Hospital accredited by the Joint Commission on Healthcare Organizations that has been designated as a Level IV Trauma Center by a LEMSA pursuant to Articles 2 and 5 of the California Health & Safety Code and Title 22 California Code of Regulations § 100254. Verification of Level IV

trauma center status by the American College of Surgeons does not constitute designation by a LEMSA as a Level IV trauma center.

**Level I or II Trauma Patient.** A Trauma Patient who the Solano County Prehospital Trauma Triage Plan and Solano County Prehospital Trauma Triage Algorithm, as they may be amended from time to time, direct to be transported to the closest Level I or Level II Trauma Center.

**Pediatric Patient.** A patient less than fifteen (15) years of age.

**Pediatric Trauma Center.** A Trauma Center designated as a Level I or II pediatric trauma center by a LEMSA.

**SEMSC.** The Solano Emergency Medical Services Cooperative.

**STEMI (ST-Elevation Myocardial Infarction).** A clinical syndrome defined by characteristic symptoms of myocardial infarction or acute myocardial infarction, commonly known as a heart attack.

**STEMI Alert.** A report from an SRH or a paramedic with 12-lead ECG indicating a STEMI that notifies an SRC as early as possible that a patient has a specific computer-interpreted cardiac rhythm, alerting the SRC to initiate the internal procedures to provide appropriate and rapid intervention.

**STEMI Receiving Center (SRC).** An acute care Hospital which has been designated as an SRC by SEMSC.

**STEMI Referral Hospital (SRH).** An acute care Hospital other than an SRC.

**STEMI System of Care.** An integrated prehospital and Hospital program that is intended to direct patients with field-identified STEMIs directly to Hospitals with specialized equipment to promptly treat these patients.

**Trauma Center.** A Hospital, accredited by the Joint Commission on Accreditation of Healthcare Organizations, which has been designated as a Level I, II, III, or IV trauma center and/or Level I or II pediatric trauma center by a LEMSA.

**Trauma Patient.** A seriously injured person who requires timely diagnosis and treatment of actual or potential injuries by a multidisciplinary team of health care professionals, supported by appropriate resources, to diminish or eliminate the risk of death or permanent disability.

**Trauma System.** An organized, coordinated effort in a defined geographic area that is integrated with the local medical and public health systems and delivers the full range of care to all injured patients.

**Trauma Triage Criteria.** The criteria SEMSC establishes for determining the most appropriate destination Hospital for a Trauma Patient.

2. **Designated Facilities.** A Hospital seeking designation by SEMSC as a Designated Facility shall satisfy the designation standards established by SEMSC for that type of Designated Facility.

**A. Base Hospitals and Alternative Base Stations.**

1. **Policies and procedures.** A Base Hospital and an Alternative Base Station shall implement SEMSC's policies and procedures for medical direction of prehospital personnel.
2. **Base Hospital supervision, monitoring and training.** Specific responsibilities of a Base Hospital include supervising prehospital treatment, triage, transport and the delivery of ALS, monitoring program compliance by direct medical supervision, reviewing patient care reports and providing, or causing to be provided, prehospital personnel training and continuing education in accordance with SEMSC's policies and procedures.
3. **Alternative Base Station responsibilities.** An Alternative Base Station has the same responsibilities as a Base Hospital unless SEMSC excuses it from undertaking those responsibilities. Responsibilities that an Alternative Base Station may be excused from performing include, but are not limited to, providing or causing to be provided prehospital personnel training and continuing education, and reviewing patient care reports.
4. **EMS quality improvement program.** A Base Hospital and an Alternative Base Station shall develop and implement, in cooperation with other EMS system participants, a Hospital-specific written EMS quality improvement program in accordance with the Emergency Medical Services Quality Improvement Program Model Guidelines (Rev. 3/04).

**B. STEMI Receiving Facilities.**

1. **STEMI Alert early notification.** Upon receiving a positive STEMI finding on a 12-lead ECG monitor, a paramedic shall immediately contact an SRC and issue a STEMI Alert. The paramedic will send the 12-lead ECG report to the Hospital's emergency department if capable of doing so. Transport shall be in accordance with County policy.
2. **STEMI peer review committee.** An SRC shall establish a multi-disciplinary peer review committee which audits the STEMI System of Care, and makes recommendations for system improvements and functions as an advisory committee to SEMSC's STEMI Quality Improvement Committee.
3. **STEMI quality improvement committee.** SEMSC shall establish a STEMI Quality Improvement Committee which audits the STEMI System of Care and serves as an advisory committee to SEMSC to make recommendations for system improvements.

4. **Interfacility transfers.** SRCs shall enter into transfer agreements with other receiving Hospitals for the transfer of STEMI patients to them.

**C. Trauma Centers.**

1. **Medical direction.** When assessing, treating or transporting a Level I or II Trauma Patient, prehospital emergency medical care personnel shall follow SEMSC's protocols if such protocols require securing medical direction or if prehospital emergency medical care personnel otherwise determine they need medical direction.
2. **Interfacility transfers.** Trauma Centers shall enter into transfer agreements with other receiving Hospitals for the transfer of patients that meet the Trauma Triage Criteria
3. **Trauma Registry meetings.** Trauma Centers shall send representatives to attend Trauma Registry meetings as scheduled by SEMSC.
4. **Mass Casualty Incidents (MCIs).** MCIs shall be handled in accordance with County MCI policies and protocols.

**D. EDAPs.** Ambulance transportation of Pediatric Patients shall be as follows:

1. **Critically injured Pediatric Patients.** These Pediatric Patients shall be transported to the closest Pediatric Trauma Center, except as provided in the Solano County Prehospital Trauma Triage Plan and the Solano County Prehospital Trauma Triage Algorithm, as they may be amended from time to time.
2. **Critically ill Pediatric Patients.** These Pediatric Patients shall be transported to the closest EDAP, except as provided in the Solano County Prehospital Trauma Triage Plan and the Solano County Prehospital Trauma Triage Algorithm, as they may be amended from time to time.
3. **Pediatric Patients who are not critically ill or injured.** These Pediatric Patients shall be transported to the closest EDAP unless a parent or guardian requests otherwise and signs a statement to that effect.

- E. Other Designated Facilities.** SEMSC may designate facilities to perform specified EMS systems functions other than those set forth in this Resolution pursuant to guidelines established by the Authority and standards established by SEMSC.

**3. Air Ambulance Providers.**

- A. Air Ambulance Provider permit.** No person shall furnish, operate, conduct, maintain or otherwise provide or offer or profess to provide air ambulance service originating in the County unless the person has a currently valid Air Ambulance Provider permit. To secure an Air Ambulance Provider permit the

applicant shall complete and submit an application for the permit to the County's Permit Officer and provide such information and documentation as SEMSC shall require by policy.

- B. **Policies and procedures.** SEMSC shall establish policies and procedures that apply to medical control of Air Ambulance Providers and medical flight crews, and that apply to Air Ambulance Provider record keeping and data reporting, and continuous quality improvement.
  - C. **Availability.** An Air Ambulance Provider shall have adequate resources to provide Air Ambulance Service in the County on a continuous basis 24 hours a day, 7 days a week.
  - D. **Federal Aviation Administration.** Nothing in this section supersedes or negates compliance with Federal Aviation Administration regulations.
4. **Performance Standards and Data Collection and Reporting.**
- A. **Performance standards.** Designated Facilities and Air Ambulance Providers shall comply with performance standards applicable to them established by SEMSC policy.
  - B. **Data collection and reporting.** Designated Facilities and Air Ambulance Providers shall satisfy data collection and reporting requirements applicable to them established by SEMSC policy.
  - C. **Duplicate reporting.** SEMSC shall make every effort to utilize existing data sets in any policies requiring the reporting of data by a Designated Facility or Air Ambulance Provider, so as not to create additional data reporting responsibilities by Designated Facilities and Air Ambulance Providers apart from data they may already be required by any State or Federal government agency or any private accrediting body to collect and/or report.
5. **Disciplinary policy and procedures applicable to Designated Facilities and Air Ambulance Providers.** If SEMSC staff finds a Designated Facility to be deficient in meeting the designation criteria, or a Designated Facility or Air Ambulance Provider to be deficient in satisfying a SEMSC performance standard, or any policy, procedure or other standard mandated by local, state or federal law, the following shall apply:
- A. SEMSC staff will give the Designated Facility or Air Ambulance Provider written notice, setting forth with reasonable specificity, the nature of the deficiency.
  - B. Within fifteen (15) calendar days of receipt of such notice, the Designated Facility or Air Ambulance Provider must provide SEMSC staff, in writing, a statement that the deficiency has been cured and an explanation of how it was cured, a plan to cure the deficiency, or a statement of the reasons why it disagrees with the written notice of deficiencies.

- C. The Designated Facility or Air Ambulance Provider shall have thirty (30) days to cure the deficiency unless a lesser period of time to cure is stated in the notice of deficiencies.
  - D. If the Designated Facility or Air Ambulance Provider chooses to challenge the written notice of deficiencies, in addition to the written statement it provides to SEMSC staff under Paragraph 5.B, it must also file an appeal with the County Public Health Officer as set forth in Resolution 11-001, Paragraph 10. The provisions of Resolution 11-001, Paragraph 10 shall then apply.
  - E. If the Designated Facility or Air Ambulance Provider does not timely appeal the validity of the deficiency and fails to cure the deficiency within the allowed time, SEMSC will either terminate its designation as a Designated Facility or its Air Ambulance Provider permit or impose such other sanction as specified in SEMSC's policies.
- 6. **Regulations.** The SEMSC Board of Directors delegates to its Medical Director and the EMS Agency Administrator the power and authority to make rules and regulations consistent with this Resolution.
  - 7. **Savings clause.** If any paragraph, subparagraph, sentence, clause, phrase or word of this Resolution is held to be invalid for any reason, such decision shall not affect the validity of the remainder of the Resolution. The SEMSC Board of Directors hereby declares that it would have passed the Resolution, and each paragraph, subparagraph, sentence, clause, phrase or word of this Resolution other than the one or more paragraphs, subparagraphs, sentences, clauses, phrases or words declared to be invalid.
  - 8. **Resolution 11-001.** Resolution 11-001 and this Resolution shall be read in *pari materia* so as to give full force and effect to the provisions of both.
  - 9. **County Policies.** Any reference in this Resolution to County policies, procedures, protocols and algorithms are for reference purposes only and do not imply that such documents were presented to the Board for approval or endorsement.
  - 10. **Effective date.** The Resolution shall be effective in sixty (60) days.

Passed and adopted by the Board of Directors of the Solano County Emergency Medical Services Cooperative on May 5, 2016, by the following votes:

AYES:

NOES:

ABSENT:

ABSTAIN:

\_\_\_\_\_  
Birgitta Corsello  
Chair of the SEMSC Board of Directors

Attest:

\_\_\_\_\_  
Rachelle Canones  
Clerk of the SEMSC Board

**Solano Emergency Medical Services Cooperative**

**Board of Directors Meeting**

**Meeting Date: 5/5/2016**

**II. REGULAR CALENDAR**

- d. Receive Presentation and Update from Doug Wolfberg and EMS staff, and Consider Approval of Solano County Prehospital Trauma Triage Plan and Algorithm (Policy 6105)**

**BACKGROUND:**

During the January 2014 SEMSC Board Meeting, a draft of the proposed resolution for oversight of designated specialty care centers and ambulance providers was presented. Base Hospital and Trauma Base Station procedures were incorporated as part of the drafted language.

Much discussion has been had by various stakeholder groups regarding medical direction for trauma patients being transported in the field.

After careful consideration, a decision was made that medical direction provided for trauma patients in the field is better left at policy level, allowing for future changes to be incorporated in a more timely fashion to better serve the needs of Solano County residents. A draft of the proposed policy is attached as Exhibit II-D.

**LEGAL SUFFICIENCY:** This item has been reviewed by County Counsel.

**BOARD ACTION:**

Motion:

By: \_\_\_\_\_ 2<sup>nd</sup>: \_\_\_\_\_

AYES:

NAYS:

ABSENT

ABSTAIN

# Solano County Health & Social Services Department



Gerald Huber, Director

Aaron Bair, MD, MS  
EMS Agency Medical Director

**EMERGENCY MEDICAL SERVICES AGENCY**

355 Tuolumne Street, MS 20-240  
Suite 2400, Vallejo, CA 94590  
(707) 784-8155  
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Ted Selby  
EMS Agency Administrator

## POLICY MEMORANDUM 6105

Implementation Date: December 15, 2011

Revised Date: Draft 9

**REVIEWED/APPROVED BY:**

\_\_\_\_\_  
AARON BAIR, MD, MS, EMS AGENCY MEDICAL DIRECTOR

\_\_\_\_\_  
TED SELBY, EMS AGENCY ADMINISTRATOR

**SUBJECT: SOLANO COUNTY PREHOSPITAL TRAUMA TRIAGE PLAN**

**AUTHORITY:** CALIFORNIA HEALTH & SAFETY CODE, DIVISION 2.5, 1797.220 and 1798.

**PURPOSE:**

To maintain a system that allows trauma patients to benefit from receiving Trauma Center services most appropriate to that patient's injuries; in the most expeditious manner possible. Level I or II trauma centers should be utilized when appropriate.

**I. GENERAL CONCEPTS:**

- A. Trauma Centers improve the outcomes for patients with significant traumatic injuries.
- B. Level I and Level II Trauma Centers are able to provide emergent neurosurgical intervention; therefore major trauma patients with injuries (definite or suspected) requiring immediate access to a neurosurgeon should be transported to the closest Designated Level II Trauma Center.

**II. PATIENTS LIKELY TO BENEFIT FROM TRAUMA CENTER SERVICES:**

- A. Trauma patients exhibiting abnormal vital signs (for adult patients only):**
1. Hypotension – systolic blood pressure less than 90mmHg;
  2. Tachycardia – heart rate greater than 120bpm;
  3. Tachypnea – respiratory rate less than ten or greater than 29 breaths per minute;
  4. Altered Mental Status – Glasgow Coma Score (GCS) 14 or less.
- B. Trauma patients with a high likelihood of benefit from neurosurgical services (Level I/II Trauma Centers):**
1. GCS 12 or less;
  2. Penetrating trauma to head (excluding facial injuries);
  3. Suspected open or depressed skull fracture;
  4. Paralysis.
- C. Trauma patients with the following anatomic injuries:**
1. Penetrating injury to neck, torso, buttock, groin, or extremities proximal to knee or elbow;
  2. Flail chest;
  3. Two or more proximal long bone fractures;
  4. Amputated/crushed/degloved proximal to wrist or ankle;
  5. Pelvic instability or crepitus with a possible fracture from major trauma.
- D. Trauma patients with mechanisms of injury suggestive of serious injury:**
1. Falls greater than 20 feet for adults, or two times the height of a child or greater than ten feet.
  2. High risk vehicle accidents including:
    - a. Intrusion in the passenger compartment greater than 12 inches on the occupant site or greater than 18 inches any site;
    - b. Ejection from vehicle (partial or complete);
    - c. Death of a patient in the same passenger compartment;
    - d. Vehicle telemetry data consistent with high risk of injury (when available).
  3. Vehicle striking a pedestrian or bicyclist with speed at impact greater than 20 mph or involving the torso being run over.
  4. Motorcycle crash with estimated speed 20 mph or more with a stationary object.

### III. TRAUMA MEDICAL DIRECTION

- A. Major trauma patients in the pediatric age range (15 years of age and below) should bypass local Trauma Centers and be transported to a Pediatric Trauma Center.
- B. Paramedics have been trained to apply protocols and use judgment to identify Level I/II trauma patients. The approved trauma triage algorithm will be used to determine the appropriate trauma center destination.
- C. When assessing, treating, or transporting a Level I/II trauma patient, Paramedics shall contact the Solano Emergency Medical Services Cooperative (SEMSC) designated Level II Trauma Center Base Hospital for medical direction if either SEMSC's protocols require securing medical direction or if Paramedics otherwise determine medical direction is necessary. **The SEMSC designated Level II Trauma Center Base hospital is Kaiser Foundation Hospital, Vacaville.**
- D. The use of air ambulances is considered separately from the trauma triage decision. Air ambulances may benefit patients injured in locations distant from Trauma Centers, and/or those in need of immediate procedures available to flight nurses, but outside the scope of practice of Paramedics. The use of air ambulances is not the default method of transport for major trauma patients. Aircraft should only be used when they offer a measurable advantage to ground transport. Use of air ambulances is covered in Policy 5800.
- E. This policy does not apply to Multi-Casualty Incidents (MCIs).

### IV. PARAMEDIC IMPRESSION

If the primary Paramedic believes that a patient not meeting criteria as a trauma patient has injuries that may exceed the capabilities of the usual receiving hospital, then the case should be discussed with the Solano County Designated Level I/II Trauma Base. The trauma base physician or designee, in consultation with the primary scene paramedic, may designate that patient as a trauma patient, and that patient will be transported to the nearest appropriate Trauma Center.

### V. PATIENTS UNLIKELY TO BENEFIT FROM BYPASSING THE CLOSEST HOSPITAL FOR TRANSPORT TO A TRAUMA CENTER

- A. Trauma patients in cardiac arrest (consider field pronouncement);
- B. Trauma patients without a controlled airway;
- C. Major trauma patients with rapid deterioration/impending arrest with Trauma Center transport time greater than 30 minutes.

### VI. MAJOR TRAUMA PROCEDURES

- A. The primary Paramedic will determine whether the patient meets criteria as a trauma patient, and what level and type of trauma center care is appropriate for that patient (see Trauma Triage Algorithm attachment).

- B. The Primary Paramedic will determine the mode of transportation to the appropriate Trauma Center, in accordance with policy.
  - 1. If transportation is by ground, the transporting unit's dispatching agency will confirm that the closest destination Trauma Center is open.
  - 2. If transportation is by air ambulance, the air ambulance provider's dispatch will determine the closest appropriate destination Trauma Center, and confirm that it is open to receiving trauma patients.
- C. The transporting unit will contact the designated Trauma Center and advise them of their impending arrival, and provide a report on the patient's injuries and condition. Non-designated Out-of-county destination facilities are not authorized to give online medical instructions/orders.

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**SOLANO COUNTY PREHOSPITAL TRAUMA TRIAGE ALGORITHM**

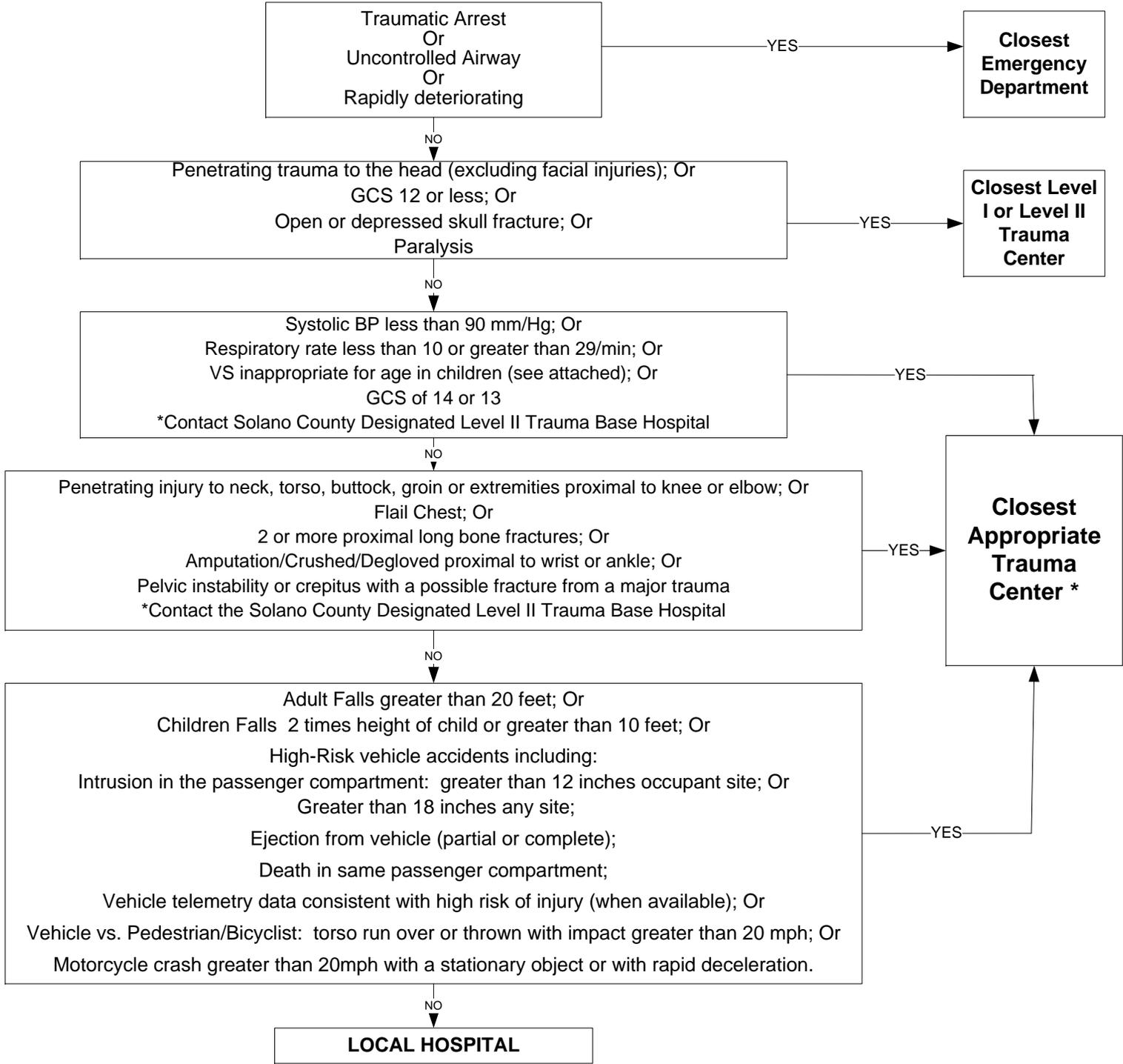
**SPECIAL CONSIDERATIONS**

*Patients in the following categories may benefit from trauma center care:*

- Age: risk of injury for patients is increased after age 55 and under age 15
- Anticoagulation and bleeding disorders
- Dialysis patients
- Burns with trauma (e.g. explosion with burns)

\* Patients less than 15 years of age are considered pediatric and should be transported to the closest Pediatric Trauma Center.

**Paramedics are to use clinical judgment in each case and may contact the Level II Trauma Base Hospital Physician for consult when needed.**



**SOLANO COUNTY PREHOSPITAL TRAUMA TRIAGE ALGORITHM**

Patients with uncontrolled airway, or traumatic arrest, should be taken rapidly to the closest Solano County receiving hospital. Similarly, trauma patients who are rapidly deteriorating on the brink of arrest may need to be taken to the closest facility if conditions (traffic, distance, available air ambulance) are unfavorable for rapid transport to a trauma center.

Patients meeting these criteria are considered major trauma patients and should be transported quickly to the nearest trauma center. A major trauma patient less than 15 years of age should be taken to the nearest pediatric trauma center.

Patients with injuries or deficits that may indicate need for immediate neurosurgical intervention shall be taken to the nearest Level I or Level II Trauma Center.

If the primary paramedic feels that a patient not meeting criteria as a major trauma patient has injuries which may exceed the capabilities of the patient choice or closest hospital, and would likely benefit from direct transport to a Trauma Center, then the case should be discussed with the **Designated Level I/II Trauma Base Hospital Physician**. Using Mechanism of Injury criteria for trauma center destination decisions alone is not always predictive of injury; if during the paramedic’s assessment they determine the patient may not have any injuries, trauma base physician consultation may be made to alter the destination. **NOTE: The Designated Level I/II Trauma Base Station Physician does not need to be contacted for every trauma destination but is always available to assist.**

The **Solano County** Designated Level I/II Trauma Base is Kaiser Foundation Hospital, Vacaville; contact telephone number: (707) 452-9892

**Pediatric Vitals: threshold for transfer to trauma center:**

<u>AGE</u>	<u>HR</u>	<u>RR</u>	<u>BP</u>
0 – 6 months	greater than 150	greater than 50	
7 – 11 months	greater than 140	greater than 40	
1 – 2 years	greater than 130	greater than 40	less than 75/50
2 – 6 years	greater than 120	greater than 30	less than 80/55
6 – 12 years	greater than 110	greater than 20	less than 90/60
12 – 15 years	greater than 100	greater than 16	less than 90/60

A trauma patient less than 15 years of age who meets criteria for transportation to a trauma center should be taken to a Pediatric Trauma Center. Those patients 15 years of age or older who are physiologically similar to adults may be transported to an Adult Trauma Center.