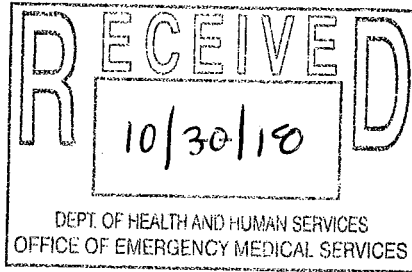


EMERGENCY MEDICAL SERVICES AUTHORITY

10901 GOLD CENTER DR., SUITE 400
 RANCHO CORDOVA, CA 95670
 (916) 322-4336 FAX (916) 322-1441



October 12, 2018

David Magnino
 EMS Administrator
 Sacramento County EMS Agency
 9616 Micron Ave., Suite 960
 Sacramento, CA, 95827

Dear Mr. Magnino:

The EMS Authority (EMSA) has approved Sacramento County EMS Agency's 2017 Trauma System Status Report. Thank you for providing the report in compliance with EMSA's Annual Trauma System Status Report Guidelines. All Sacramento County EMS Agency's trauma system information provided in the report and subsequent correspondence is in compliance with California Code of Regulations, Title 22 Trauma Care Systems.

In accordance with the regulations, Section 100253, the local EMS agency shall submit to the EMS Authority an annual trauma system status report. Upon review of the report, the EMS Authority has the following required actions/recommendations/comments:

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Accepted as Written Required Action Recommendation Comment

Changes to Implementation Schedule

Accepted as Written Required Action Recommendation Comment

David Magnino
October 12, 2018
Page 2

System Performance Improvement

Accepted as Written Required Action Recommendation Comment

Thank you for providing the bar charts to illustrate the slight increase in incidents between 2016 and 2017.

The new North RTCC Chair is Frank Kennedy, MD from San Joaquin General Hospital. Dr. Kennedy will facilitate and attend all North RTCC meetings, so this will be a great opportunity for you to reach out to him with regards to data collection on trauma patient transfers between Sacramento and San Joaquin.

Progress on Addressing EMS Authority Trauma System Plan/Status Report Action Items

Accepted as Written Required Action Recommendation Comment

Thank you again for submitting a report on Sacramento County EMS Agency's Trauma System. Your next Trauma System Status Report will be due on or by September 20, 2019 (see attached format). Please provide us with an electronic copy. If you have any questions, please contact Elizabeth Winward at (916) 431-3649 or elizabeth.winward@emsa.ca.gov

Sincerely,



Tom McGinnis, EMT-P
Chief, EMS Systems Division

Attachment



Emergency Medical Services Authority

Trauma System Plan Revision & Annual Trauma System Status Report Guidelines

Edmund G. Brown Jr.
Governor
State of California

Diana S. Dooley
Secretary
Health and Human Services Agency

Howard Backer, MD, MPH, FACEP
Director
Emergency Medical Services Authority

Updated, June 2012



This document is intended to provide Emergency Medical Services (EMS) Agencies with instructions and minimum guidelines for preparing Trauma System Plan Revisions and Annual Trauma System Status Reports.

TRAUMA SYSTEM PLAN

California statute, Health and Safety Code Section 1798.162, allows local emergency medical services (EMS) agencies to implement a trauma system if the system meets the minimum standards set forth in the regulations. For preparation of the Trauma System Plan, refer to EMSA #151 - Trauma Plan Development Guidelines, January 2000. The guideline is available on the EMS Authority website: www.emsa.ca.gov/emsddivision/trauma_plan_cover.asp.

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If significant changes to the trauma system occur after the Trauma System Plan has been approved, the Trauma System Plan must be revised and submitted to the EMS Authority for review and approval prior to the implementation of the changes. The California Code of Regulations outlines the requirements for significant changes to a Trauma System Plan.

- ✚ **Section 100253 (i):** After approval of a trauma system plan, the local EMS agency shall submit to the EMS Authority for approval any significant changes to that trauma system plan prior to the implementation of the changes. In those instances where a delay in approval would adversely impact the current level of trauma care, the local EMS agency may institute the changes and then submit the changes to the EMS Authority for approval within thirty (30) days of their implementation.

Significant changes would include designation or de-designation of trauma care facilities, changes in use of outside trauma care systems, change of trauma care system design, or major policy changes. Two copies of the revised Trauma System Plan should be submitted to the EMS Authority with a cover letter that clearly outlines the major changes.

Generally, significant changes will require the entire Trauma System Plan to be revised. However, specific section changes will be accepted only if they clearly fit within the old plan (i.e., page numbering remains the same, new sections are complete). A letter clearly outlining the changes must accompany two copies of

the section changes. Please contact the EMS Authority Trauma Coordinator to determine if section changes would be appropriate at (916) 322-4336.

The EMS Authority should be notified immediately upon **any** changes to the number of trauma centers. If a trauma center is added, a letter should be sent to the EMS Authority that includes the name of the trauma center, the street address, whether the trauma center is a public or private facility, the phone number for the hospital and the trauma office, the trauma center designation level, and the date it was designated.

The local EMS Agency should immediately contact the EMS Authority to alert them as to any possible de-designation or reduction in designation level of a trauma center and update the Authority as additional information becomes available. If the trauma center is ultimately de-designated or the designation level is reduced, a letter should be sent to the EMS Authority indicating the name, address and the level of the trauma center, and the date of de-designation or designation level reduction. The trauma plan should also be updated to indicate the addition or deletion of the trauma center and show how trauma patients will be cared for.

ANNUAL TRAUMA SYSTEM PLAN STATUS REPORT

Local EMS Agencies are required to include a trauma system status report as part of the annual EMS Plan update according to the California Code of Regulations.

- ✚ **Section 100253 (j):** The local EMS agency shall submit a trauma system status report as part of its annual EMS Plan update. The report shall address, at a minimum, the status of trauma plan goals and objectives.

The report is to be a separate chapter of the EMS Plan and is due one year from the approval of the most current EMS Plan. The report should include a summary of the trauma system, a description of any changes to the trauma system, the number and designation level of the trauma centers, an update of the status of the Trauma System Plan's goals and objectives and any modifications, progress toward or changes to the implementation schedule, and progress toward addressing any comments made in the EMS Authority's review of the Trauma System Plan. Any changes and/or additions to the Trauma System Plan should also be enclosed with the status report and clearly marked for incorporation into the trauma plan. A general format for the trauma system status report follows.

EMS Plan: TRAUMA SYSTEM STATUS REPORT

Trauma System Summary – Brief summary of trauma care system.

Changes in Trauma System – Describe any changes in the trauma care system and/or progress toward implementation.

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System Performance Improvement – Provide a description of trauma system review processes accomplished during the reporting year.

Progress on Addressing EMS Authority Trauma system Plan Components – Trauma System Plan approval letters may include issues to be addressed or commented upon by the local EMS Agency. The status report should include an update of progress toward completion of these items along with any required changes accomplished as required in the approval letter. Changes should be accompanied by a cover letter which clearly indicates where the changes should be added to the Trauma System Plan.

Other Issues – Local EMS Agencies may include any other relevant issues as deemed appropriate.

**SACRAMENTO COUNTY
2017 TRAUMA SYSTEM ANNUAL UPDATES
August 22, 2018**

In accordance with established guidelines, submitted is the annual update to the Sacramento County Trauma Care System Plan.

Trauma System Summary

The Sacramento County Trauma Care System is a network of three in county and one out-of-county trauma centers. Sacramento County Emergency Medical Services designates trauma centers to provide emergency medical care to any patient evaluated by pre-hospital emergency medical service personnel and requiring transportation to a trauma center.

The system undergoes review on a continuous basis. Reviews include quarterly meetings of the Trauma Review Committee. Trauma surgeons and other trauma professionals within Sacramento County and nearby counties conduct the meetings.

Changes in Trauma System

No significant changes since last year's status report.

Number and Designation Level of Trauma Centers

There are no potential problems or pending changes in designation for any of the below listed trauma centers at this time.

In County:

University of California Davis
Medical Center
2315 Stockton Boulevard
Sacramento, CA 95817
(916) 734-2011
Level I Trauma Center (Adult and
Pediatric)

Kaiser Permanente Medical Center - South
Sacramento
6600 Bruceville Road
Sacramento, CA 95823
(916) 688-2000
Level II Trauma Center

Mercy San Juan Medical Center
6501 Coyle Avenue
Carmichael, CA 95608
(916) 537-5000
Level II Trauma Center

Out-of-County:

Sutter Roseville Medical Center
One Medical Plaza
Roseville, CA 95661
(916) 781-1200
Level II Trauma Center

Sacramento County 2017 Trauma System Annual Updates

Trauma System Goals and Objectives

The Trauma System is a network of dedicated professionals in the pre-hospital and hospital settings tasked with maintaining or expanding our region-wide Trauma Review Committee forum through ongoing communication and teamwork. The focus is to enable detailed review and analysis of filtered, unexpected surgical outcomes and comprehensive data collaboration.

1. *Improve mechanisms to ensure continuing compliance with trauma care system standards through continuous quality improvement (CQI) activities and data collection from both designated trauma centers and non-trauma centers.*

The Trauma Review Committee (TRC) participates in reviews of local trauma protocols and policies, making suggestions for ongoing trauma care improvement in the pre-hospital setting. The TRC provides unique educational opportunities to physicians and administrators throughout the region and has been in place for nearly two decades. Contributing participants include trauma managers and surgeons from El Dorado, Placer, Sacramento, San Joaquin, and Yolo counties, as well as regional forensic pathologists.

2. *Improve integration and coordination of trauma services within the emergency medical services system through continued data collection, analysis and trauma system policy development through advisory committees.*

Sacramento County Emergency Medical Services Agency (SCEMSA) contracts with the Inland Counties Emergency Medical Agency (ICEMA) as its data provider. ICEMA functions as the repository of the Sacramento County trauma and EMS data. Under this system, trauma centers and EMS providers submit data directly to ICEMA, which hosts the California Emergency Medical Services Information System (CEMSIS). This allows SCEMSA to review data as it is submitted, decreasing the time between submission, analysis, and review at advisory meetings.

SCEMSA works closely with the three Sacramento County trauma centers to identify and correct any software issues associated with the direct submission of data to CEMSIS. SCEMSA staff works to develop reports incorporating the data fields requested from the Trauma Review Committee. SCEMSA is working with each trauma center and their trauma data submission vendor, Trauma 1, to update the data submission process in 2018. The update endeavors to include tracking of inter-facility transports, trauma patients and monitoring of trauma activations that do not meet admission requirements.

**Sacramento County
2017 Trauma System Annual Updates**

Illustrated below in Figure 1 are incidents per quarter for data year 2016. Figure 2 represents incidents per quarter for data year 2017. The report shows a slight overall increase in 2017 but consistent variation among hospitals.

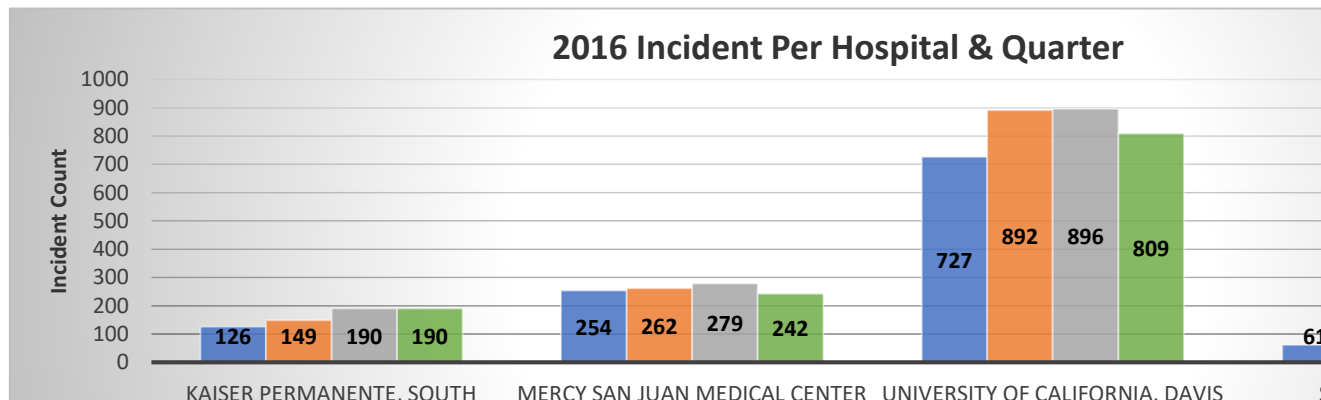


Figure 1

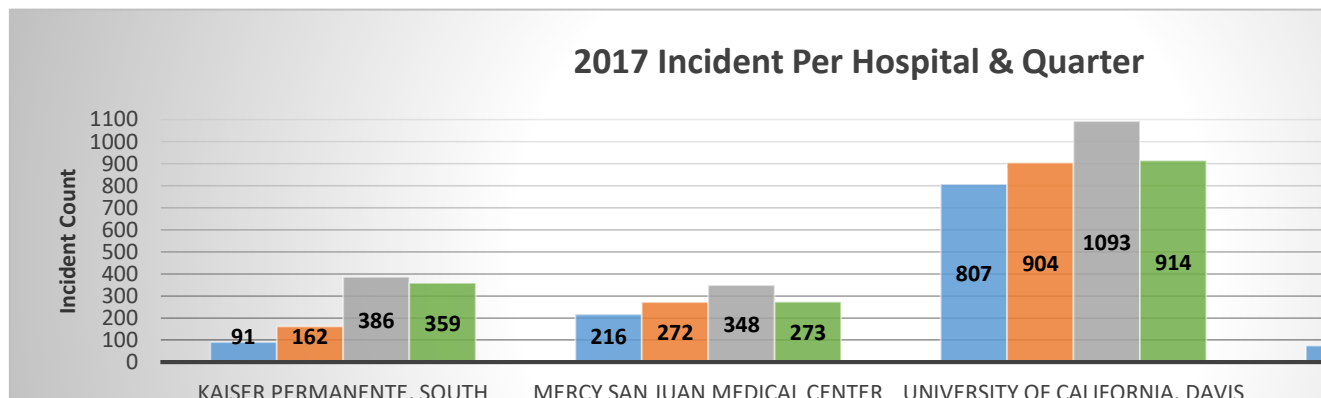


Figure 2

3. *Improve coordination of local trauma activities with trauma services in adjacent counties through involvement in CQI activities with out-of-county trauma centers and trauma systems.*

SCEMSA supports and participates in the North Regional Trauma Coordinating Committee (RTCC), resulting in improved communication among the North RTCC, out-of-county trauma centers, and the EMS Agency. The SCEMSA Administrator chairs the pre-hospital subcommittee at the request of North RTCC Chairman, Dr. David Shatz, University of California Davis Medical Center.

The EMS specialist assigned to the CQI Program and trauma data attends the RTCC meetings. Attendees from the region provide better insight into trauma data collection and submission. This is aiding progress between the EMS Agency and the trauma registrars at each trauma center. EMS Agency staff attends several adjacent county and statewide trauma CQI meetings, including Yolo and San Joaquin Counties’ trauma CQI meetings and the annual CA Trauma Summit. Attendance at the trauma and CQI meetings enables the EMS Agency staff to learn about other trauma center activities throughout the State and share this information with other Agency members.

**Sacramento County
2017 Trauma System Annual Updates**

4. *Improve accountability and objective evaluation of the trauma care system through data collection and analysis, utilizing a trauma registry and an audit and review process.*

In addition to ongoing local and regional trauma data review and analysis, each Sacramento County designated trauma center data registry undergoes inspection every three (3) years. An independent, nationally recognized team of trauma surgeon experts from American College of Surgeons, Committee on Trauma (ACSCOT) conducts the inspections. Members of the inspection team review a sampling of patient charts. Data records undergo review for appropriateness and inform improvement to practice when indicated.

There were no trauma center inspections scheduled in calendar year 2017. Scheduled inspections for calendar year 2018 include University of California Davis Medical Center and Mercy San Juan Medical Center.

Changes to Implementation Schedule

No changes in the current implementation schedule.

System Performance Improvement

1. *Objectives, goals and RTCC meetings (January, May and September) enable improvement achievements. The trauma system review process is evolving as a tool to provide system wide improvement by:*

Policy updates: Discussion at the North RTCC prompted Sacramento County to implement changes in policy and protocols. These changes include:

- Addition of Fentanyl to the paramedic scope of practice effective November 1, 2017.
- Adoption of the RTCC recommendation to increase needle length size from 14 gauge 2.5” to 14 gauge 3.25” for needle decompression.

Data submission and presentation: EMS specialist oversees the CQI Program and conducts the collection and presentation of data. The specialist works with trauma hospitals and surgeons to identify relevant indicators to improve the trauma system. Indicators include:

- | | |
|---|---|
| <ul style="list-style-type: none">• Mechanism of injury• Mode of Arrival• Trauma type• Patient’s Age | <ul style="list-style-type: none">• Injury Severity Score Range• Emergency Department Disposition• Hospital Discharge Disposition |
|---|---|

Sacramento County 2017 Trauma System Annual Updates

TRC Recommendations: In November 2017, the TRC noted that Kaiser Medical Center South Sacramento lacked electroencephalography (EEG) capabilities 24 hours per day, 7 days per week. The hospital's capability to run EEG is limited due to lack of available resources. EEG demand is infrequent, however, patients requiring transport to an EEG capable facility results in less than optimal patient care conditions. Neurologists order EEGs for diagnosis with increasing frequency. EMS Administrator and Medical Director will draft a recommendation letter on behalf of the TRC suggesting EEG availability be discussed with Kaiser Medical Center South Sacramento management before the next ACSCOT review in 2018.

Title 22 requirement for periodic performance evaluation of the Trauma System: The SCEMSA Administrator attends the ACSCOT pre-visit evening dinner and site visit to answer questions relating to the pre-hospital part of the trauma system. The SCEMSA Administrator will attend the visits in 2018.

2. *Consider adding outcome measures so that some benchmarking can be done not only within the county and its Trauma Centers but also through your multicounty PI process.*

A continuous invitation has been extended to San Joaquin General Hospital's trauma program to attend quarterly Trauma Review Committee and North RTCC meetings.

SCEMSA continues to work with the trauma program managers and San Joaquin County EMS Agency to collect data on trauma patients transferred between San Joaquin General Hospital and Sacramento County.

Trauma System participants regularly review outcome data to improve system performance. Data elements include:

- Pre-hospital scene times
- Field intubation success rates and complications
- Geriatric trauma outcomes related to head injury and falls
- Wait time for inpatient rehabilitation beds for traumatic brain injury and spinal cord injury patients
- Secondary transfers of pediatric traumas
- Under-triage for trauma patients

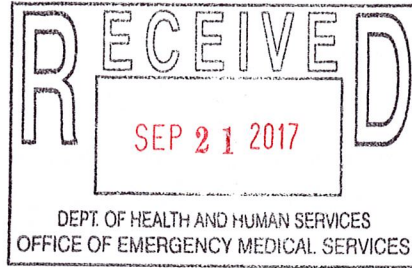
SCEMSA participates in the State's Re-Triage study to assist in data collection. The focus for this study is to improve time to definitive care in the trauma center. SCEMSA will continue its participation.

APPENDIX 1:

LETTERS FROM STATE APPROVING ANNUAL UPDATES

EMERGENCY MEDICAL SERVICES AUTHORITY

10901 GOLD CENTER DR., SUITE 400
RANCHO CORDOVA, CA 95670
(916) 322-4336 FAX (916) 322-1441



September 20, 2017

David Magnino
EMS Administrator
Sacramento County EMS Agency
9616 Micron Ave., Suite 960
Sacramento, CA, 95827

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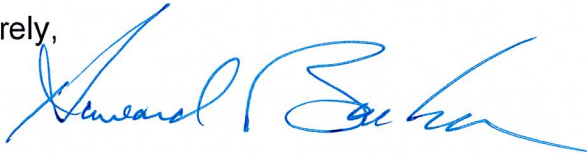
Progress on Addressing EMS Authority Trauma System Plan/Status Report

Action Items

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Sincerely,

A handwritten signature in blue ink, appearing to read "Howard Backer".

Howard Backer, MD, MPH, FACEP
Director

Attachment



Emergency Medical Services Authority

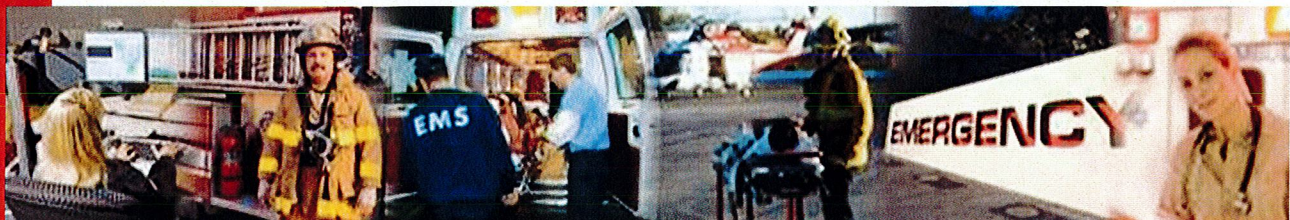
Trauma System Plan Revision & Annual Trauma System Status Report Guidelines

Edmund G. Brown Jr.
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Updated, June 2012



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