



TRAUMA SYSTEM QUALITY IMPROVEMENT PROCESS

Effective: December 18, 2017
Replaces: September 12, 2014
Review: December 18, 2020

I. Purpose

The Purpose of this policy is to outline the quality improvement process employed by the trauma system in Santa Clara County.

II. Trauma Center Quality Improvement

- A. Each Trauma Center must have a formal and fully functional internal multidisciplinary medical quality improvement program for its trauma service.
- B. Responsibility for the trauma care at each institution, as well as compliance with the County Trauma Center Standards, is that of the Director of the Trauma Service at each of the Trauma Centers.
- C. Each Trauma Center will perform its own case review using audit filters identified by the complication list within the Santa Clara County Trauma Data Dictionary and as determined by the Trauma Medical Director.

III. Trauma Care System Quality Improvement Committee (TCSQIC)

Responsibilities:

- A. To advise and assist the Santa Clara County EMS Agency (Agency) and EMS Medical Director to monitor and trend issues that occur in the trauma system.
- B. To provide recommendations for quality improvement of the trauma system.
- C. To discuss current trends and research in trauma care that may have an impact on patient care.
- D. To provide ongoing standardized medical review of trauma care.
- E. To provide an educational forum for current treatment modalities in trauma care.
- F. To provide opportunities for the analysis of data and information of scientific value for clinical studies and strategic planning/review of the Trauma System.



- G. To disseminate quality data (aggregate) to the prehospital care providers at the Prehospital Care System Quality Improvement Committee (PCSQIC).

IV. Membership

The TCSQIC Committee is composed of the following:

- A. Emergency department (ED) Medical Director Representative, from the South Bay Emergency Medical Directors Association.
- B. Trauma Medical Director from each Santa Clara County designated Trauma Center.
- C. Trauma Program Manager from each Santa Clara County Designated Trauma Center.
- D. ED Medical Director from each Santa Clara County designated Trauma Center.
- E. Surgical Critical Care Director from the Santa Clara County designated Trauma Centers, as needed.
- F. Two (2) orthopedic surgeons from the Santa Clara County designated Trauma Centers, as needed.
- G. Two (2) neurosurgeons from the Santa Clara County designated Trauma Centers, as needed.
- H. One (1) pediatric Trauma Medical Director Representative from each of the designated SCC Pediatric Trauma Centers.
- I. Medical Directors of air ambulance services; primary ALS ground transport services and first responder representative.
- J. The Santa Clara County Coroner office – Medical Examiner representative.
- K. One (1) public provider agency voted for by the Medical Advisory Committee.
- L. One (1) private provider agency representative voted for by the Medical Advisory Committee.
- M. EMS Agency Medical Directors or their representatives from Santa Cruz; San Benito, San Mateo, and Monterey Counties.
- N. The Burn Center Medical Director and Burn Program Manager
- O. The Medical Director(s) of Acute TBI/Spinal Cord Rehabilitation, as needed.



P. Santa Clara County EMS Agency Staff (non-voting).

V. Appointment of Members

- A. Trauma Medical Directors, Trauma Program Managers, Emergency Medical Directors are automatically appointed on the basis of a contract between the designated Trauma Center and the EMS Agency.
- B. Committee members representing a specialty, not a representative of an institution, are solicited from the respective organization/specialty group.
- C. The Chairperson of TCSQIC collaborates with the EMS Medical Director to identify appointments to the committee.
- D. The EMS Agency Medical Director and the EMS Agency Specialty Programs Nurse Coordinator provide staff support to the TCSQIC.

VI. TCSQIC Chair Person

The TCSQIC Chairperson must be a Trauma Medical Director in SCC and actively practicing trauma surgery. The TCSQIC Chairperson is assigned to a two (2) year term. The TCSQIC Chairperson must have been an active member of the TCSQIC for at least two (2) years. The Chairperson shall appoint a Vice-Chairperson to fill their duties during absences. The Chairperson presides over the committee and ensures there are final adjudications obtained from the committee discussions. The Chairperson corresponds or follows up on committee matters as directed by the membership, with the assistance of the EMS Agency staff to the committee. The TCSQIC Chairperson attends the Emergency Medical Care Committee to represent Trauma.

VII. Rotation of Chairperson

The TCSQIC Chairperson is based on a rotation of the Trauma Medical Directors at the Santa Clara County designated Trauma Centers. If a Trauma Medical Director declines his rotation, the assignment of the TCSQIC Chairperson will be decided by the Trauma Medical Director's and the EMS Medical Director. The incoming chairperson will assume their responsibilities at the July Meeting.

VIII. Quorum

On matters brought before the TCSQIC requiring a vote a quorum consists of at least one (1) voting member from each of the Trauma Centers. All committee members in attendance have a vote. No determination is made in the absence of a quorum. EMS Agency staff members are not voting members.

IX. Non-disclosure of Information



- A. Information and documents from this committee are protected pursuant to California Evidence Code Section 1157.7
- B. Each committee member and any guests are required to sign a confidentiality agreement which will be maintained on file at the EMS Agency

X. Attendance

Trauma Medical Directors (or appropriate assigned designees) from Santa Clara County designated Trauma Centers and the EMS Medical Director are required to attend all scheduled meetings. Specialties are invited to all meetings; however, attendance is expected when specific trauma cases require subspecialty review and evaluation. Remaining membership is monitored by the EMS Agency for active participation. Inactive members are reminded of their non-participatory status and are asked for a commitment or an equivalent replacement.

XI. Process

The TCSQIC meets six (6) times per year. Approximately three (3) times per year, recognized trauma experts are invited to critique cases and to provide an educational presentation to all levels of trauma care personnel. Each Trauma Center and the EMS Agency are responsible to provide one guest lecture per year for the TCSQIC. Continuing education (CE) credits are provided for physicians, nurses, and paramedics in attendance. The EMS Specialty Programs Nurse Manager will facilitate the process of obtaining the documents required for providing credits to various providers and preparing the flyer to announce the presentation. Minutes/correspondence of the TCSQIC are stored electronically by the EMS Specialty Programs Nurse Manager to maintain confidentiality. Final adjudications regarding trauma patient care are maintained by each designated Trauma Center for inclusion in their QI process.

XII. Preparation of Cases for TCSQIC Review

Each Santa Clara County Trauma Center manages their internal QI through the use of audit filters. Cases that are selected through the internal audit process are put forward to be discussed at the executive session prior to the bimonthly meeting. The executive session is attended by the Trauma Medical Directors, Trauma Program Managers, the EMS Medical Director and the Specialty Programs Nurse Manager. These cases are reviewed at Trauma Executive committee meetings to select the three or four cases that will be presented at the TCSQIC based on their educational merit or QI issues.

- A. The following audit filters are used to determine which cases will be brought forward for discussion at the Trauma Executive group prior to the Trauma Care System Quality Improvement Committee:
 - 1. Trauma related deaths with opportunities for improvement



2. Interfacility transfers (IFT):
 - a. IFT patients with prolonged hospital stay at non-trauma facility that impact patient outcome.
 - b. IFT patients that involve a systems issue
3. Complications
 - a. Care related (or Process measures)
 - b. Error in judgment
 - c. Error in technique
4. Systems related issues:
 - a. Inappropriate/Under triage
 - b. Airway management
 - c. Prehospital care issue

B. Presentation of cases at TCSQIC

Representative cases are selected for presentation by the Trauma Centers.

1. Each Trauma Center Medical Director prepares a presentation, including appropriate materials for cases to be presented at TCSQIC.
2. The EMS Medical Director may present the prehospital care portion of the case if pertinent.
3. A case may be referred to the TCSQIC from the PCSQIC.
4. The EMS Agency provides staff support whose duties are:
 - a. Creating and distributing meeting/education announcements.
 - b. Preparation of TCSQIC Agenda in conjunction with the TCSQIC Chair.
 - c. Preparation of TCSQIC business meeting notes.
 - d. Developing and overseeing in conjunction with the TCSQIC Chair and the EMS Medical Director, any ad hoc committees identified to focus on specific trauma system issues.

C. Conclusion of TCSQIC Case Reviews



1. Categorization of trauma related deaths:
 - a. Following the presentation of trauma related deaths, a quorum of the committee members present must make the determination as to the preventability of death. Each case presentation will be assigned one of the following categories:
 - 1) For all trauma deaths:
 - (a) Mortality without opportunity for improvement
 - (b) Anticipated mortality with opportunities for improvement
 - (c) Unanticipated mortality with opportunity for improvement.
 - (d) Additionally the membership determines if the care was appropriate and the PI Sufficient.
 - 2) For cases in which the patient survived however there were issues with the care rendered:
 - (a) Care was appropriate
 - (b) Opportunities for improvement exist
 - (c) PI Component was sufficient
 - (d) PI Component was insufficient.
 - b. *Trauma Care System Case Evaluation Forms* will be available at the meetings. The EMS Agency Staff collects the forms and maintains them in a confidential file.
 - c. Following the meeting, voting is tabulated and an aggregate summary with all comments documented will be sent to each Trauma Program Manager to share with the internal QI committee at the individual Trauma Center.
3. Other topics and issues (not case-based):
 - a. All other topics and discussions are reflected in the minutes of the meeting and follow-up is provided at the next meeting.

XIII. The Agency shall assure that **Periodic System Site Visits** by trauma specialists from outside the county allow for an independent evaluation to take place. The frequency of these visits is determined by the Agency and will occur at least every two (2) years.