



CENTRAL OHIO TRAUMA SYSTEM GUIDELINES FOR ACUTE CARE HOSPITALS' TRAUMA PERFORMANCE IMPROVEMENT

PURPOSE

These guidelines are to assist central Ohio acute care hospitals in conducting trauma performance improvement (PI) as mandated per Ohio legislation.

Institutional PI is intended to:

- Monitor patient care
- Assess the appropriateness and timeliness of patient care
- Provide a mechanism for reporting issues associated with patient care
- Identify and address impediments to improving patient care
- Enhance patient outcomes

These guidelines are a suggested model of conducting trauma PI. They may be customized to fit the needs of hospitals. COTS has no regulatory authority to oversee hospitals' PI.

PERFORMANCE IMPROVEMENT DEFINED

Performance Improvement (PI) is a continuous multidisciplinary process that measures, evaluates, and improves the process of care and patient outcomes.¹ A successful PI program has key components:

- Authority and accountability
- Documented PI process methodology including established organizational standards, data and data review, PI filters and thresholds, action plans, and reevaluation
- Documented Peer Review Process to include morbidity/mortality review

AUTHORITY AND ACCOUNTABILITY

Ohio Revised Code (ORC) 3727.09 states that PI for adult and pediatric trauma care provided in or by the hospital shall be accomplished by peer review and quality assurance

¹ *Resources for the Optimal Care of the Injured Patient: 1999*, Committee on Trauma, American College of Surgeons, © 1998

procedures. Hospitals shall establish a trauma PI Committee or assign trauma PI to an existing effective Committee. The designated trauma PI Committee shall have an identified chairperson with the authority to establish Committee rules and membership.

A typical PI Committee Chair is a Medical Director. The PI Chairperson shall assure that meetings occur no less than quarterly and that PI Committee membership is multidisciplinary. A mandatory minimum attendance requirement of greater than 50% is common. The Hospital PI Committee typically has representation from:

- Physicians who provide care for the trauma patient including the Departments of Surgery, Emergency Medicine, Anesthesia, Neurosurgery, Orthopedic Surgery, Radiology and others
- Nurses who provide care for the trauma patient including from emergency services, critical care, med-surg, operating room and others
- Support service specialists who provide care for the trauma patient including Pharmacy, Respiratory Care, Radiology, Social Service, Pastoral Care and others

The PI Chairperson has the ultimate responsibility for trauma PI and ensures that appropriate action is taken with regards to identified problems or concerns. The chairperson reviews all reported issues and determines the need for PI Committee review.

METHODOLOGY

The PI Committee must establish a documented process for conducting trauma patient PI. The process shall identify organizational standards, data and a methodology for data review, data filters, thresholds, action plans, and system re-evaluation.

Organizational Standards. Some standards for trauma patient care at hospitals have been set by Ohio law.² Other standards for care will be established by individual hospitals. Under Ohio law, all hospitals must have written trauma care protocols for adult and pediatric trauma patients³. These trauma care protocols will encompass some of the trauma care standards a hospital adopts.⁴

Data and a Methodology for Data Review. In order to conduct PI effectively, hospitals must establish a system for collecting, collating, and trending trauma data. Trauma data can come from several sources:

- Incidents
- Testimony
- Case reviews
- Medical records of trauma patients

² ORC 1753.28, 3727.08, 3727.09, 3727.10, 4765.01, 4765.12

³ ORC 3727.09

⁴ See COTS *Regional Trauma Care Protocols for Acute Care Hospitals*, November 2002

- Central Ohio Trauma System Registry

PI issues may come to the PI Chairperson and Committee via one of several pathways:

- Staff reporting of isolated and aggregate system or quality issues
- All trauma deaths are automatic reviews
- Establishment and monitoring of quality data filters that are applied to all trauma patients seen at the hospital
- Periodic focused reviews of various processes and care related issues (i.e. specific complications, documentation, adherence to care guidelines, etc.)
- Issues identified from an outside agency's PI process review

Staff Reporting. A perceived problem in any aspect of care of the trauma patient can be reported to the PI Committee Chair. Problems are initially investigated by the Committee Chair or member of the Committee. Written documentation should track the inquiry. A complaint may be determined to be without merit and become a closed issue. Issues of concern are forwarded to the Committee for further review.

Data Filters. *Data filters* are routine audits that assess key aspects of care for all trauma patients seen at the hospital. Data filters aid in identifying key components of quality trauma care provided to the patient. These filters are commonly based on accepted practice guidelines and standards of care. Data filters for acute care hospitals may also be based on mandates of the Ohio trauma legislation.⁵ Data filters may assess care along the trauma continuum from the pre-hospital arena through the inpatient hospital stay. There is no minimum or maximum number of filters specified in the legislation. Some examples of PI filters for consideration by hospitals' PI Committees could include:

- Presence of an EMS Run Sheet
- Not intubated at the scene with a Glasgow Coma Score <8
- Trauma patient admissions who meet the State's criteria for transfer to a trauma center
- Patients with a time of arrival at the hospital until transfer to a trauma center greater than 90 minutes
- In-patient trauma deaths
- Complications

Filters can identify when patient care is inconsistent with a set standard. Filter thresholds are determined by the PI program goals or targets. . Deviations from the filter thresholds indicate issues that require analysis and action. Problematic issues are referred to the PI Committee for review and action. Threshold discrepancies should be trended until resolved. Select data filters should be evaluated and revised by the PI Committee annually.

Hospitals that are members of the *Central Ohio Trauma System* and submit data to the COTS Registry can utilize the Registry to trend retrospective trauma PI data. COTS

⁵ ORC 1753.28, 3727.08, 3727.09, 3727.10, 4765.01, 4765.12

Registry data reflects patients discharged during the preceding quarter, as per the State of Ohio's Trauma Registry data submission guidelines.⁶ Hospitals intending to solely utilize COTS Registry for data filters must select data elements captured in COTS Registry. With written permission of the hospital CEO, hospital PI Committee Chairs can establish regular data filters through COTS Registry. Per COTS Registry policies, data is owned by the submitting hospital.⁷ All data is confidential. COTS staff have signed Confidentiality Statements on file.

Focused Review. Recurrent problems with data filters or from other reported sources may warrant a *focused review* of the issue at hand. The introduction of new guidelines, procedures, or technologies into the care of the trauma victim may also warrant a focused review. A focused review is requested by the Chair or PI Committee. The PI Committee Chair and designees conduct an investigation of the problem. Written documentation of a focused review shall include:

- The issue
- Start date
- Means of identifying and documenting the issue
- Periodic reporting of as the review progresses
- Interventions taken during the review to correct problematic issues
- Completion date or endpoints of the review
- Final analysis
- Mechanism for reporting results to the PI Committee

Action Plans. Credible issues require action to correct the related deficiencies in trauma patient care. The PI Committee Chair and Committee must have the ability to address problematic PI issues through:

- The development of regional guidelines, protocols, or pathways
- Educational forums including COTS Trauma Grand Rounds, conferences, inservices, or one-on-one with a Franklin County trauma center Medical Director or Trauma Nurse Coordinator
- Written communication

Re-Evaluation. Once the action or actions have been taken to address problematic areas of trauma patient care, the issue requires re-evaluation. Re-evaluation can occur via any of the following:

- Staff reporting
- Monitoring of data filters
- Focused reviews

⁶ Cite State of Ohio's Trauma Data Dictionary

⁷ Cite COTS Registry Policy

REFERENCES

Children's Hospital Trauma Services, Columbus, Ohio
Grant Medical Center Trauma Services, Columbus, Ohio
Mount Carmel West Trauma Services, Columbus, Ohio

Resources for the Optimal Care of the Injured Patient: 1999, Committee on Trauma,
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