Trauma Quality Improvement Program

American College of Surgeons Committee on Trauma
2017
ACS TQIP

Valid, Reliable, Standardized Data

Monitor Performance

Risk-Adjusted Performance Measurement

Promote Structures and Processes of High Performers

Feedback to Trauma Centers
TQIP components

Risk adjusted inter hospital comparisons:
- Two reports, including the annual TQIP risk-adjusted benchmark report and additional reports each year on topics of interest.
- Online data analysis tool to drill down into your own TQIP data, obtain patient lists

Education and training:
- Annual meeting
- Online training
- Monthly educational experiences for abstractors
- Monthly open forum calls for Registry Staff

Enhanced data quality:
- Data validation site visit
- Data quality reporting and quarterly submissions
- TQIP Validator

Sharing best practices:
- Annual meeting
- High performers
- Web conferences
ACS TQIP: External benchmarking

Goal: To improve the quality of care of trauma patients
- Feedback to participating centers on their relative performance
- Explore variability to identify best practices
- Confidential reports - not available for use by others, e.g. verification, advertising for competitive advantage

Uses existing trauma center staff and data collection infrastructure
- Based on NTDB data collection and the National Trauma Data Standard (NTDS) with specific enhancements

Focus on outcomes & understand processes
TQIP observations

A high performing center might not be a high performer for all types of patients

- Differences in performance based on patient type (blunt multisystem, single system, or penetrating injury)

Poor correlation across age groups

- Centers might be high performers for the young, yet not the elderly

There are clinically relevant mortality differences across centers
Status report

- Approximately 484 adult LI/II TQIP participants
- Approximately 130 adult LIII TQIP participants (Level III TQIP launched July 2016)
- Rolling enrollment - join any time during the year
- TQIP Collaboratives for states/systems
- Pediatric TQIP with 131 centers
- Beginning to identify high performers
- External data validation
TQIP deliverables

- Risk adjusted benchmark reports
- Data quality report
- Quarterly data quality check
- Data validation site visits
- Online course
- Monthly educational experiences
- Online data analysis tool
- Web conferences
- Annual meeting
- Clinical Best Practice Guidelines
TQIP benchmark report cycle

- Provided in the Spring and Fall, and includes:
  - Site-Specific Benchmark Report
    - Site-Specific PPTs with associated figures
  - Aggregate Report
  - Patient Listing Application and TQIP Analytic Tools updates
TQIP benchmark report contents

- **Adult Level I/II TQIP**
  - 3 major outcomes in 8 cohorts + 9 individual complications = 33 models
  - 30+ tables
  - 4+ figures

- **Pediatric TQIP**
  - 3 major outcomes in 6 cohorts + 1 individual complication in 3 cohorts = 21 models
  - 20+ tables
  - 4+ figures
Adult LI/II TQIP benchmark report

Cohorts:
- TQIP population (all patients)
  - Blunt multisystem injuries
  - Penetrating injuries
  - Severe traumatic brain injuries (sTBI)
  - Shock patients
  - Elderly patients
  - Elderly patients with blunt multisystem injuries
- Splenic injuries (isolated and un-isolated)
- Fracture fixation (midshaft femur and open tibial shaft)
- Hemorrhagic shock
- Elderly patients with isolated hip fractures

Modeled Outcomes:
- Mortality
- Major Complications
- Major Complications Including Death
- Pneumonia (in All Patients and sTBI)
- Acute Kidney Injury (in All Patients and Shock)
- Pulmonary Embolism, Surgical Site Infections, Unplanned Return to OR, Urinary Tract Infection, Unplanned Admission to ICU (each in All Patients)
Pediatric TQIP benchmark report

Cohorts:

- Pediatric TQIP population (all patients)
  - All, ages 0-13
  - All, ages 14-18
  - Traumatic brain injuries (TBI)
    - TBI, ages 0-13
    - TBI, ages 14-18
- Splenic injuries (isolated and un-isolated)
- Fracture fixation (midshaft femur and open tibial shaft)

Modeled Outcomes:

- Mortality
- Major Complications
- Major Complications Including Death
- Pneumonia (in TBI cohorts)
Patient Listing Application

**Objective:** Provides an opportunity to drill into individual patients outcomes and understand how they influence benchmark performance
Online course

- Available 24/7 to all participants
- Complements live meeting
- Chapters on
  - TQIP overview
  - Focus on data quality
  - Injury info
  - Pre-hospital info
  - ED info
  - Procedures and diagnosis
  - Outcomes
  - Quality assurance
  - TQIP-specific fields
  - Working with your vendor
Monthly educational experiences

• Address specific NTDS and data quality issues
• High participation
• Positive feedback
• Improving scores over time
Periodic web conferences

- Quarterly for new centers
- Monthly for registry staff
- Twice annually following new report release
- Other topics as needed
Process of Care Measures

TQIP aims to explore process of care in your hospital with the TQIP-specific Process Measure fields covering the following areas:

- TBI
- Venous Thromboembolism Prophylaxis
- Hemorrhage Control
- Withdrawal of Care
Clinical Best Practice Guidelines

Best Practices Guidelines presented at the Annual TQIP Conference - Next topic: Imaging

- 2017 Annual TQIP Scientific Meeting and Training in Chicago, IL November 11-13