

“The Ideal Site Visit”

- Successful verification
- Input to improve your trauma program
- Minimal stress
 - Prior to review
 - During review

Topics

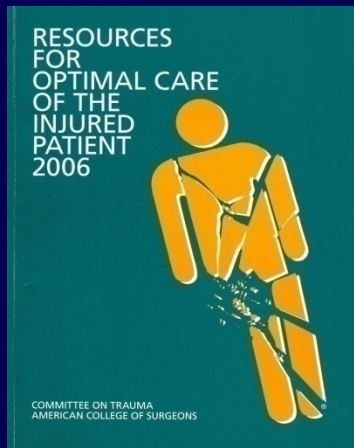
- I. General Comments
- II. Preparation for Site Visit
- III. Site Visit
- IV. Details – Requirements for Verification

I. General Comments

1. Purpose (Site Visit) – Verify hospital's compliance with ACS standards for a trauma center.
2. **“Display” your trauma program to reviewers**
3. ACS Verification – every three years – Should be the best you can be every day
4. Improve from site visit
5. Weaknesses and recommendations – act on them to the extent possible (next review)
6. VRC – Collaboration with trauma programs
7. VRC – Guidance for verification

II. Preparation for Site Visit

- Anticipate site visit – START more than one year in advance
- Infrastructure and resources – teamwork, right people
- “Optimal Care Document” – review



Preparation

Initial Communication

1. **VRC Office Staff** – contact
2. **Submit site visit application** - > 5 months in advance of anticipated visit date
3. **VRC Office** – begin arranging dates & site reviewers
4. 30 days prior to visit – **VRC office emails** site visit confirmation, reviewer contact information and “Review Agenda”
5. <http://www.facs.org/trauma/verificationhosp.html> – information regarding site visit

PRQ

- **Pre Review Questionnaire (PRQ)** – description of your trauma program; accuracy
- **Access to online PRQ** – receipt of application
- Must be completed **30 days prior** to site visit
- Brevity; Concise; Well organized
- Input of others for information
- Have **others read it** – before submitted
- Contact VRC office for questions

Preparation

- Communication with Reviewers (“Lead”)
- Arrangements – Confirm flights (arranged by ACS), transportation from airport, hotel arrangements
- Schedule – dinner, and timing of review (chart review, dinner, tour, etc)
- Organize hospital departments – PRQ and for hospital tour
- Medical Records – Electronic or Charts

Typical Agenda for Site Visit

Day #1

- **Chart Review and Evaluation of PI** – start around 1:00pm
- **Pre-Review Dinner** – begin approx. 6:30pm

Day #2

- **Hospital Tour** – Start 7:00am
- Further Chart Review and Evaluation of PI; Review of other Documentation
- **Site Survey Team Closed Meeting** (30-60 minutes)
- **Exit Interview** – 11:00-12:00noon

Site Visit – Chart Review

- Organize charts into categories as requested
- Charts should not be older than 14 months prior to the survey date
- PI information/face sheet and pre-hospital, EMS run sheet should be contained within the medical record - PI face sheet should include the Injury Severity Score, minutes and progress/specialty notes.

Categories of Medical Records for Review (122 charts)

- A. **All Trauma Deaths (last 30)** – organized in stacks of:
a) preventable, b) possibly preventable, and c) non-preventable

New taxonomy effective January 2012

- a) Unanticipated mortality with opportunity for improvement
- b) Anticipated mortality with opportunity for improvement
- c) Mortality without opportunity for improvement

Categories of Medical Records for Review (122 charts) Continued...

B. Last 10 charts for each of the following categories:

1. **ISS > 25** (with survival)

2. **Pediatric < 15 years**

3. **Epidural/subdural hematoma**

4. **Thoracic/cardiac injuries** (include aortic injuries)

5. **Pelvis/femur fractures** (include unstable pelvic fx with hypotension; embolization)

6. **Spleen and liver** injuries (grade III or higher)

7. **Transfer out** for the management of **acute injury**

8. **Adverse event** in the PICU or SICU

C. Last 12 charts for trauma pts admitted to non-surgical services

Site Visit

Chart Review

- Medical Records – someone to assist the site reviewers in navigating the:
 - paper chart, or
 - electronic medical record
- Conference Style Table
 - adequate space
 - lighting

Chart Reviews

PATIENTS

EPIDURAL / SUBDURAL
HEMATOMAS

THORACIC
INJURY

Site Visit – Chart Reviews

If Electronic Medical Record –

---helpful if portions of chart are printed out & placed in a folder.

What to print

1. Pre-hospital – a) EMS run sheet, b) Transferring facility ED info.
2. Trauma Flow Sheet
3. H & P
4. Consults
5. Op notes
6. Discharge Summaries
7. Autopsy reports

Copies of PI documentation and other related information – should also be included



ACS Trauma

Spleen/Liver

ACS Trauma

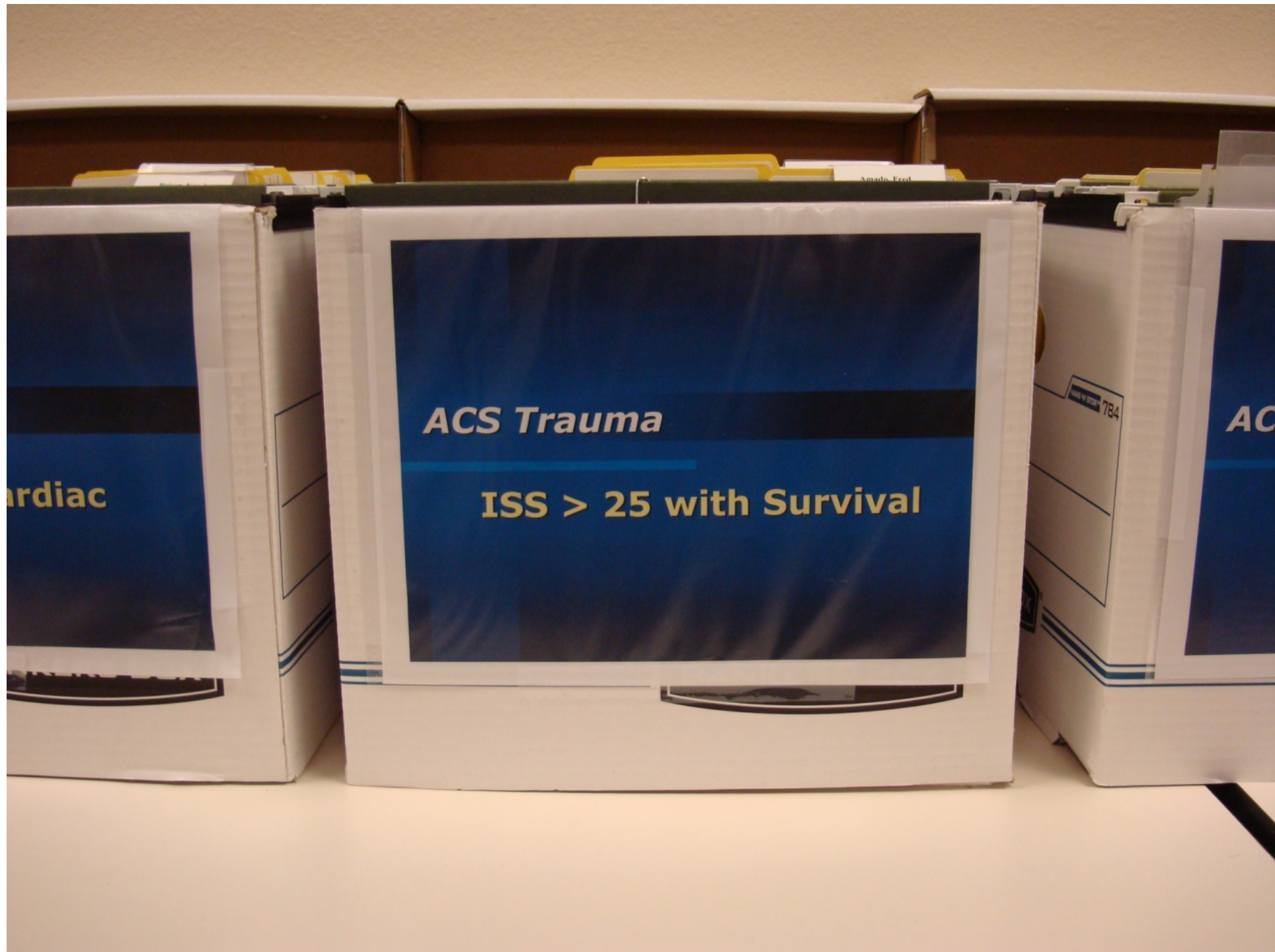
Non-surgical Service Admits

ACS Trauma

EDH / SDH

ACS Trauma

Adverse Ev



ACS Trauma

ISS > 25 with Survival

cardiac

AC

784

Forms for Each Category

	Patient MRN	Admit Date	M/F Age	ISS	Comments	PI Date	PI Issues
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							

Potentially Preventable Death

	Patient MRN	Admit Date	M/F Age	ISS	Comments	PI Date	PI Issues
1.	Smith, Steve 1234567	Jan 5, 1965	M 45	25	MVC, Spleen – Grade 3; Pulmonary contusion; ARDS; DVT; Death	Nov 20, 2008	Delay to surgery; DVT; ARDS; Pot. Preventable Death
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							

Pre-Review Dinner (Meeting)

- Discuss PRQ and other questions related to trauma program
- Attendees – physicians (trauma surgeons, liaisons), administration, trauma team members, etc. (see next slide for list)
- Room – **well lit**, **quiet**, and **easy to communicate** with each other
- **Trauma Program Presentations** – discuss with “Lead” reviewer in advance – not needed; short
- **No alcohol**

Pre-Review Dinner (Meeting)

Ideally available for the Pre-Review Meeting/Dinner (other essential personnel may also attend)

- Hospital administrator for the trauma program
- Trauma medical director
- Emergency medical director
- Trauma neurosurgeon
- Trauma orthopaedic surgeon
- Trauma program manager
- Trauma registrar
- Trauma anesthesiologist
- Trauma physiatrist
- Chief of surgery
- Surgical director of the critical care unit
- Radiologist

A pre-review meeting/dinner is mandated, however, a formal or informal dinner is not required.

Hospital Tour

- Reviewers will determine start time and specifics of tour
- Arrange for trauma team members – to guide each reviewer
- Have staff available to meet with reviewers in each department during tour

Tour

1. Emergency Department
2. Radiology
3. Operating Room/PACU
4. Intensive Care Unit
5. Blood Bank
6. Rehabilitation
7. PICU
8. Surgical Floor (trauma patients)

Exit Interview

- **Reviewers' Findings** – (closed meeting) deficiencies, strengths, weaknesses, and recommendations
- **Attendees for Exit Interview** – hospital choice
- **Final determination of successful verification is by the VRC** – and may differ from the conclusions of the reviewers

IV. Details – Requirements for Verification

- Materials needed at time of review
- Overview

Trauma Activities for Review Period (3 years)

Documentation (Binders)

1. **Research (Level I)** – Articles and ACS research forms (see next slide)
2. **Community Outreach** – Activities
3. **Injury Prevention** – Activities
4. **Educational Activities** – (physicians, nurses, EMS) – ATLS, TNCC, PHTLS, ATCN; Internal programs

Research Form

- **Hospital must declare - Verification Review Time Period**
(three years – 36 months – month/yr to month/yr)
 - **Hospital Form for Each Research Article Claimed**
 - **Attach Grid to each article at time of site visit**
1. Date of publication _____
 2. Peer reviewed journal – Yes / No
 3. Article – Adult _____ Pediatric _____
 4. Did the publication result from **work related to this trauma center?** If no (explain - _____) Yes _____
 5. Author/Co-author from which Discipline:
 - a. **General Surgery** (Trauma Surgeon) _____
 - b. NS _____, EM _____, Ortho _____, Radiology _____, Anesth _____, Rehab _____ (**at least one from 3 of 6 these disciplines**)
 - c. Nursing _____
 - d. Other _____ (describe) _____

Information – Providers (update if “new” to panel)

Maintain Current Information

- ATLS – documentation for Trauma Surgeons and Emergency Physicians (new physicians)
- Residency training
- Board certification (or eligible, or need for alternate pathway)
- IF ALTERNATE PATHWAY
 - identify in advance
 - FACS if not eligible (process takes up to year)

Alternate Pathway – Level I and Level II Trauma Centers

- **Non-Board Certified or Eligible Physicians**
- Trauma Surgeons (6.2), Emergency Physicians (7.6), Neurosurgeons (8.9), Orthopedic Surgeons (9.14)
- **On-site evaluation** of the physician's care, by a member of the same specialty
- Eight criteria – must be met

Alternate Pathway Level I Trauma Center

1. Has provided **exceptional care** of trauma patients
2. Has numerous trauma **publications and presentations**
3. Has published excellent trauma related **research**
4. Is documented to provide **excellent teaching**

Requires on site evaluation by physician from same specialty.

CME Documentation (past 3 years) – (on-site)

- TMD, Trauma program liaisons (NS, ortho, EM) – 48 hours of verifiable external trauma CME in 3 years
- Others on call panel (GS, NS, Ortho, EM)
 - a. 48 hours trauma CME in 3 years (16 hours average per yr)

OR

b. Internal Educational Process

Internal Educational Process

- Trauma surgeons, neurosurgeons, orthopaedists, emergency physicians
- **If PEDS TC** - pediatric surgeons & pediatric intensivists (also)
- Educational topics identified in the PI process (ideally)
- Presented by TMD or liaison; Electronic with documentation
- **At least Quarterly** – department or other meetings
- Document meetings – attendance and the content
- BINDER with documentation - available at site visit**

Trauma Medical Director

1. Board-certified or Eligible; FACS (not alternate pathway) (5.5) I,II,III
2. Must participate in trauma call (5.6) I,II,III
3. Must be current in ATLS (5.7) I,II,III
4. Membership and active participation in regional or national trauma organizations is essential for the TMD (5.8, 6.14) I, II

Authority and Responsibility for Trauma Medical Director

- Requirements – 2.4, 5.9, 5.15, 5.22, 6.1, 16.10, 16.11, 16.12
- Trauma call panel – who; qualifications
- Trauma call panel – recommend changes
- Correct deficiencies
- Oversight authority for the care of patients
- Disseminate information to non-core surgeons
- Ensure compliance with verification requirements
- Authority and administrative support to lead program

Call Schedules – 3 months (Primary and Back-up)

- Trauma
- Neurosurgery
- Orthopaedics

Documentation on site

Trauma Program Documentation

1. Trauma Program Manual (org chart, policies & procedures, TPM & TMD job description, bypass protocol, etc)
2. PIPS Plan
3. Guidelines (trauma and critical care – “how you do it”); Monitoring of appropriate guideline use

Performance Improvement and Patient Safety

Documentation – at site visit

- Minutes of all trauma PI committee meetings during the review period:
 - a. Trauma Multidisciplinary Peer Review
 - b. Trauma Operational Process Performance
(Multidisciplinary System Committee)
- Attendance at above PI meetings – review year
- Keep an ongoing list of all performance improvement initiatives. System and Peer Review issues. Include – Loop Closure.

PIPS Documentation (con't)

- **Binder with documentation at site visit** (16-22 and 16-23) – In circumstances in which attendance is not mandated (**non-core members**), the trauma medical director must **ensure dissemination of information** from the trauma peer review committee, with **documentation**.
- **Suggest** – memo to non-core surgeons

Trauma Registry

Ongoing Monitoring in Registry – for documentation in PRQ and/or for site visit

1. Response times for highest level of activation
2. Locations of admit; ISS; Deaths; Admit service
3. Neurosurgery – craniotomies < 24 hours
4. Orthopaedics – cases < 24 hours; Complex pelvic fractures
5. Non-surgeon admissions (and categories – see FAQ) – review all concurrently for appropriateness
6. Pediatric cases (< 15 years)
7. Organ donation rate (CD – 21-3)

Objective PI Analysis by VRC

I. Performance Improvement Content

- A. Mortality Reviews (16.25) – Deaths must be systematically reviewed and categorized as preventable, non-preventable, or potentially preventable - **Monthly**
- B. Trauma surgeon response to the ED - for the highest level of activation must be at least 80% of the time (2.7) – **Monthly, Quarterly, and/or Annually**
- C. Audit Filters and Indicators – to evaluate processes & outcomes to assure optimal & timely care (5.4) - **Monthly**
 - 1. Major Complications and Opportunities for Improvement (Case Reviews) - **Monthly**
 - 2. Missed Injuries - **Monthly**
 - 3. Guidelines – monitor to determine compliance - **Monthly**

I. Performance Improvement Content (con't)

D. Activation Criteria/Triage Evaluation

1. The PIPS program defines conditions that require the surgeon's immediate hospital presence (2.6) – **Yearly re-evaluation**
2. The criteria for the highest level of activation are clearly defined and evaluated by the PIPS program (6.7) – **Yearly re-evaluation**
3. The criteria for graded activation should be clearly defined by the trauma center and continuously evaluated by the PIPS program (5.10) – **Yearly re-evaluation of:**
 - a. **Highest level**
 - b. **Second level of activation – criteria and trauma surgeon response time expectations**
 - c. **Other levels (consults, etc)**

I. Performance Improvement Content (con't)

E. Non-Surgeon Admissions (5.11)

1. Number of patients with a trauma consult _____
2. Patients with other surgical service consult _____
3. Number of patients with same height falls _____
4. Drownings, poisonings, and hangings _____
5. ISS less than or equal to 4 (and do not meet the criteria in #s 3 and 4)

6. Number of patients that should not have been admitted to non-surgical service (case review of each, issues, opportunities for improvement, loop closure)

Concurrent with monthly documentation

I. Performance Improvement Content (con't)

F. Pediatric-specific trauma PIPS Program (if >100pts) (2.15, 10.31) - p. 60 – Examples of Pediatric Process and Outcomes Measures – Monthly

Review pediatric trauma care (if <100pts) (2.16, 10.32) – Review each case

Less than 15 years of age

I. Performance Improvement Content (con't)

- G. Transfers Out – PIPS review of Neurotrauma patients who are diverted or transferred (8.4) and decision to transfer or retain major Orthopedic cases (9.10) - **Monthly**
- H. Emergency physicians covering in-house emergencies at Level II and III (7.3) - **Monthly**
- I. Trauma Divert Hours (3.4) – **Monthly & Annually; Each Case – Etiology & appropriateness**
- J. Appropriate neurosurgical care at level III (8.7) – **Each Case & Monthly**

I. Performance Improvement Content (con't)

K. Availability of the anesthesia services for airway control and operations (11.6, 11.7, 11.10)

Track Monthly

1. **In-house intubations** (not OR intubations);
Who performs intubation? Timeliness?
2. **ED intubations (??)** – depending on policy and/or local issues; identify problems
3. **Operations** – monitor for anesthesia delays; reasons for delays for first case & second case

I. Performance Improvement Content (con't)

L. Operating Room availability and delays when on-call team is used (11.19) II,III

Level II & III – First OR – Monitor monthly

Second OR – Monitor if delays – monthly

M. PACU – if call team from home – documentation that nurses are available and there are no delays occurring (11.25) I,II,III

PACU should monitor monthly – data to Trauma Service

Trauma Service – monitor for problems – report monthly

I. Performance Improvement Content (con't)

N. Radiology – any changes in interpretation of reports on radiology studies (11.32)

Radiology Dept – monitor monthly & report to Trauma Service

Trauma Service – identify significant issues – monthly

O. Appropriate timeliness of the arrival of the CT technologist (11.39) II,III **Radiology Dept – monitor monthly & report to Trauma Service**

Trauma Service – identify significant issues - monthly

I. Performance Improvement Content (con't)

- P. Appropriate timeliness of the arrival of the MRI technologist (11.42) – **Radiology Dept – monitor monthly & report to Trauma Service Trauma Service – identify significant issues – monthly**
- Q. Must review ICU admissions and transfers, to ensure appropriateness (11.57) III – **Monthly**
- R. Rural – demonstrating appropriate care and response by providers (13.2) – **Monthly**
- S. Organ donation rate (21.3) – **Monthly or Quarterly, and Yearly**

II. Performance Improvement Program Structure and Process

A. Trauma program must participate in the development and improvement of prehospital care protocols and patient safety programs (3.3)

Ongoing – document yearly

B. A representative from the ED must participate in the prehospital PIPS program (7.8) **Ongoing – document yearly**

C. A designated emergency physician must be available to the TMD for PIPS issues that occur in the ED (7.9) **Ongoing – document yearly**

II. Performance Improvement Program Structure and Process (con't)

- D. PACU – necessary equipment to monitor and resuscitate patients (11.27) – **Document yearly**
- E. TMD must document and disseminate PI information to the non-core surgeons (5.22, 16.22, 16.23) – **Monthly**
- F. The trauma registry is supportive of the PIPS process (15.3, 16.3) – **Data, PI issues identified**
- G. There must be a clearly defined PIPS program for the trauma population, coordinated with the hospital-wide program (16.1) – **Document**

II. Performance Improvement Program Structure and Process (con't)

- H. PIPS program must be supported by a reliable method of data collection (16.2) **Documentation**
- I. Process of analysis (16.4, 16.5, 16.6, 16.7) – **Monthly – minutes (see below)**
- J. Trauma program must be empowered to address issues that involve multiple disciplines (16.8) – **Approved by hospital governing body**
- K. The trauma program must have adequate administrative support and defined lines of authority that ensure comprehensive evaluation of all aspects of trauma care (16.9) – **Organizational chart; Approved by hospital**

II. Performance Improvement Program Structure and Process (con't)

- L. Identified problem trends must undergo multidisciplinary peer review by the trauma peer review committee (16.13) – **Document process, and when initially reviewed by specialty, then peer review**
- M. The trauma center must be able to separately identify the trauma patient population for review (16.14) – **Document – regardless of institutional PIPS**
- N. When a consistent problem or inappropriate variation is identified, corrective actions must be taken and documented (16.26) – **Monthly minutes (page 108)**

III. Performance Improvement Committees

- A. Trauma Multidisciplinary Peer Review Committee
 1. Must have Trauma Multidisciplinary Peer Review Committee (5.18, 6.9, 16.19) **Monthly minutes**
 2. Process of analysis must include multidisciplinary review (16.4) **Monthly minutes**
 3. Must meet at regular intervals to meet the needs of the program (16.5) **Monthly minutes**
 4. Must define corrective strategies (16.6) and must be documented (16.7) **Monthly minutes**

III. Performance Improvement Committees (con't)

B. Trauma Program Operational Process Performance Improvement Committee

1. Must have a Trauma Program Operational Process PI Committee (5.23, 16.15) **Monthly minutes**
2. Documentation must reflect the review of operational issues, and when appropriate, the analysis and proposed corrective actions (16.16) **Monthly minutes**
3. This process must identify problems (16.17) and must demonstrate problem resolutions (loop closure) (16.18) **Monthly minutes**

IV. PI Participation and Attendance (16.24)

- A. Trauma Medical Director and Core Trauma Surgeons (5.19, 6.10, 16.20, 16.21)
- B. Emergency Physician (7.9, 7.10, 7.11, 16.20)
- C. Neurosurgery (8.1, 8.11, 8.12, 16.20)
- D. Orthopedics (9.4, 9.12, 9.13, 16.20)
- E. Anesthesia (11.3, 11.13, 11.14, 16.20)
- F. Radiology (11.34) – **Document participation**
- G. Pediatric Surgeons and Pediatric Intensivists (10.33, 10.34)

**Documentation of attendance – minutes;
Monthly and Yearly**

Loop Closure

PI Process (*DOCUMENTATION*)

1. Identify Issues (process and pt. care)
2. Issues or problems undergo analysis
(Levels: a. TMD & TPM, b. Committees)
3. Results of analysis may require corrective actions or strategies
4. Loop Closure – (problem resolution) – follow-up monitoring
 - Some issues may never be closed
 - PIPS – Program show efforts towards improvement

Loop Closure

Corrective Actions

1. Guideline development
 2. Counseling
 3. Education (targeted – Trauma Conference, M & M, memo's, etc)
 4. Provider privilege change
 5. Resource or process improvement
 6. External review
- ***Follow-up Review of Issues (monitor)**

Loop Closure (Example #1)

- 40 y/o male MVC – Grade IV spleen injury with active extravasation, required 2 units of PRBC for BP in 80's (improved) – admitted for observation; Developed hypotension several hours later and required emergent exploratory laparotomy.
- **Loop Closure:**
 - Discussion at peer review committee
 - Counseling
 - Development of splenic injury guideline
 - Education (Trauma Conference to discuss new Splenic Injury Management guideline)

Loop Closure (Example #2)

- One of trauma surgeons has a history of being present in the trauma room for highest level activations > 15 minutes – 50% of time in past two months (4 of 8).
- **Loop Closure:**
 - Initial counseling by TMD
 - Monitoring of compliance
 - If ongoing problem – remove from call panel

Loop Closure (Example #3)

- 30 y/o male MVC – pre-hospital with GCS – 7 and facial trauma
- Highest level of activation
- TS present on arrival, but no documentation on Trauma Flow Sheet
- ED – SBP – 90, P – 135, RR – 30. No Temp noted
- 100% O2 FM; Blood transfused
- To CT scan without intubation
- CT – SDH, Pulmonary contusion, Grade 2 spleen
- Admitted to ICU – required emergent intubation

(Con't – #3)

Issues identified (and Loop Closure):

- Poor Trauma Flow Sheet documentation – follow-up with ED personnel, manager, educator – with education; Ongoing monitoring of documentation
- Delayed intubation by trauma surgeon –
 - Counseling
 - Peer Review Committee discussion
 - Education – M & M; Trauma Conference;

Loop Closure (Example #4)

- **Increase in Ventilator Associated Pneumonia** – noted over past quarter in spite of VAP bundle in place for past two years
- **Loop Closure:** Follow-up education of importance of VAP bundle. Resume monitoring of VAP bundle compliance. Ongoing monitoring of VAP incidence.

Conclusion

- Reference the **Review Agenda** and **Frequently Asked Questions** for updates to requirements/best practices,
<http://www.facs.org/trauma/verificationhosp.html>
- **This slide presentation should not be used in lieu of the Resources for Optimal Care of the Injured Patient.**
- **For Questions contact the VRC Office
312-202-5186 / 312-202-5456**