

## Trauma Performance Improvement Plan Past the ED

DRAFT April 2016

Our goal within the trauma system in Wisconsin is to provide optimal care to our trauma patients to decrease morbidity and mortality. The Trauma Performance Improvement and Patient Safety (PIPS) program will continuously assess, monitor, evaluate and improve the effectiveness of the trauma system, the care provided to the trauma patient, and ultimately patient outcomes.

INSERT- Figure 1

The PIPS program starts with creating the infrastructure to support the process.

**Multi- Disciplinary Committee:** Define who will be involved in the process. As a Level III trauma center, the program should include the core members: Trauma Coordinator, Trauma Medical Director (TMD), Emergency Medicine, Surgeon, Trauma Registrar (optional), Orthopedic Surgeon, Hospitalist/Medicine, Radiology, Pre hospital provider and other specific depts. that support the care of the trauma patient in your institution. If the TMD is a surgeon or Emergency Medicine, he/she can represent their specialty. The membership will be defined by what departments/specialties care for your trauma patient population. In a Level IV trauma center, the program should include the Trauma Coordinator, Trauma Medical Director, and Emergency Medicine and Pre hospital provider should be included. Additional members should be added based on patient populations served such as Orthopedic Surgery, Radiology, and Hospitalist. Many centers have membership from the Quality Dept. as they support the PIPS process for the institution. Centers can have the option to add Ad Hoc members that they will bring in for defined case reviews. The core membership should minimally be present for 50% of all meetings annually.

**Meetings:** The frequency of meetings can be monthly, bimonthly or minimally quarterly depending on program needs and volume of case review. Calendar the timing of the meeting. Consistency with day of the month and time will support members to attend the meetings. Centers can have the PIPS meetings in conjunction with another quality or department meeting so that the members may be able to fulfill multiple responsibilities in a certain time frame. For example, the PIPS meeting may be scheduled before the Emergency Department Clinical Meeting. Attendance should be taken for each meeting with a sign in sheet.

**Indicators:** The program will specifically determine what indicators they would like to assess, monitor and evaluate. These indicators should minimally include the pre hospital, emergency department and in-house arenas. EMS Indicators can include:

- EMS scene time greater than 20 minutes,
- Missed airway,
- Main stem intubation,
- GCS less than 8 and no definitive airway
- Appropriateness of triage and transfer guidelines, to name a few.

Emergency Department can include:

- Trauma Activation appropriateness
- Surgeon response < 30 minutes of patient arrival

- GCS less than 8 and no definitive Airway
- ED LOS > 3 hours before transfer or admission
- Missed airway
- Main stem intubation
- Death
- Transfer to higher level of care
- Compliance with Guidelines

In-House indicators:

- Unplanned ICU admission
- Unplanned OR
- Re- intubation with 48 hours of extubation
- Missed injury
- Death
- Compliance with guidelines
- Complications: CAUTI, central line infection, sepsis, pneumonia
- Nonsurgical admission
- Transfer to higher level of care after admission
- Discrepancy from Trauma Follow up Letter

Review Process: The process of review of patient care should be determined:

- Primary Review: Reviewed by Trauma Coordinator or nurse alternative
- Secondary Review: Review by Trauma Medical Director
- Tertiary Review: Reviews brought to Multi-disciplinary Committee
- Quaternary Review: Hospital Quality Review

Documentation: With each level of review, will need a documentation form. The form should include areas for review comments, date and signature of person reviewing the case and grading or appropriateness of care determination. Each level will need an area for this documentation.

Best practice is to have a form with each indicator from Pre hospital, Emergency Dept. and in-house indicators as applicable. This can be signed by the Trauma Coordinator or designee. If the case will go to secondary review, have a second form or add an additional area for the TMD comments with date and signature. If the case, goes to tertiary review will need a form for the discussion/comments, grading for appropriateness of care and action plan. Ultimately minutes should record the tertiary review discussion. If loop closure or follow needed, an area or another form will be needed to track all follow up.

Loop closure: This is the most complicated part in the PIPS process. This is the reason most centers do not pass their designation. If there is an issue with opportunity for improvement, will need to develop an action plan and document all the work done. Each action in follow up needs to be documented in an electronic or written format. This work will be continued until the opportunity is resolved. This may include trending data for a few months. Loop closure follows the PDSA (Plan-Do-Study-Act) process. A process will need to be created to track all open cases so they don't get forgotten

Registry: The registry will support the PIPS processes and provide information about the trauma program statistics. Patient data should be input in the registry with 80% of all cases in the registry within 60 days of patient discharge (ACS standard). Reports should be run on a regular basis. The frequency can be determined by the Trauma Registrar, Trauma Coordinator and Trauma Medical Director.

Other additions:

Registry

- Role of the registry

- Inclusion criteria

- Report running

- Data submission to the state

Data protection standards

PI Review template

Forms