State of Michigan Level IV Performance Improvement Requirements

TRAUMA REGISTRY

Ongoing, accurate data collection and analysis is crucial to trauma system development, performance improvement, and injury prevention. The American College of Surgeons requires trauma registries and analysis by every trauma center. Michigan requires data collection to be designated. For the purposes of this document trauma patients are defined by trauma registry inclusion criteria.

- The trauma registry is essential to the performance improvement (PI) program.
- The trauma registry should support the PI process and assist in identifying injury prevention priorities that are appropriate for local implementation. (CD 15-3, 15-4)
- The registry should be used in the PI process to identify and track opportunities for improvement.
- The facility must be able to demonstrate that all trauma patients can be identified for review. (CD 15-1)
- The information provided by a trauma registry is only as valid as the data entered. The facility must have strategies for monitoring data validity. (CD 15–10)

PERFORMANCE IMPROVEMENT

Performance Improvement Plan

The facility must have a written performance improvement plan, which addresses the following:
(MI-CD 2-3)

- A process of event identification and levels of review which result in the development of corrective action plans, and methods of monitoring, and re-evaluation must be present, and this process must be reviewed and updated annually.

- Problem resolution, outcome improvements and assurance of safety (loop closure) must be readily identifiable through methods of monitoring, re-evaluation, and documentation.

- All criteria for trauma team activation have been determined by the trauma program and evaluated on an ongoing basis in the PI process.

- The PI program identifies and reviews documents, findings, and corrective action on the following five (5) audit filters:
    a) Any system and process issue
    b) Trauma deaths in house or in emergency department
    c) Any clinical care issues, including identifying and treatment of immediate life-threatening injuries
    d) Any issues regarding transfer decision
    e) Trauma team activation times to trauma activation

- All process and outcome measures must be documented within the trauma PI program's written plan reviewed and updated at least annually. (CD 16–5)

Performance Improvement Process
All trauma facilities shall develop and have in place a performance improvement process.

- Peer review must occur at regular intervals ensuring that the volume of cases is reviewed in a timely fashion. (CD 2-18)

- Because the trauma PIPS program crosses many specialty lines, it must be empowered to address events that involve multiple disciplines. The PI Program must be endorsed by the hospital governing body as part of its commitment to optimal care of injured patients. (CD 5-1)

- There should be adequate administrative support to ensure evaluation of all aspects of trauma care. (CD 5-1)

- The TMD and the TPM/TPC should be empowered by the hospital governing body to have the authority to lead the PI program. (CD 5-1)

Activation and Transfer Performance Improvement

- The facility must monitor all trauma patients who are diverted or transferred during the acute phase of hospitalization to: (CD 9-14, CD 3-4, CD 4-3)

    A. Another trauma center, acute care hospital, or specialty hospital (for example, burn center, re-implantation center, pediatric trauma center)

    B. Patients requiring cardiopulmonary bypass

    C. When specialty personnel are unavailable

- The facility must subject these diversion/transfer cases to individual case review to determine the rationale for transfer, appropriateness of care, and opportunities for improvement. (CD 9-14, CD 3-4, CD 4-3)

- The facility should receive follow up from the center to which the patient was transferred and include it as part of the case review. (CD 9-14, CD 3-4, CD 4-3)

Specialty Services Performance Improvement

- The PI program should document the timeliness and appropriate ICU care and coverage is being provided. (CD 11-60)

Mortality Review

All trauma-related mortalities must be systematically reviewed and those mortalities with opportunity for improvement identified for peer review. (CD 16-6, 16-17)

The facility should review total trauma-related mortality rates. Outcome measures for total, pediatric (younger than 15 years), and geriatric (older than 64 years) trauma encounters should be categorized as follows:

- DOA (pronounced dead on arrival with no additional resuscitation efforts initiated in the emergency department).
- DIED (died in the emergency department despite resuscitation efforts).
- In-hospital (including operating room).
- Mortality rates by Injury Severity Scale (ISS) subgroups using the table below:

Mortality Table

ISS	Number Admitted to Trauma Service	Number of Mortalities	Percentage Mortality	Number Admitted to Non-Trauma Service
0-9				
10-15				
16-24				
>/= 25				
Total				

Event Identification Review
Sufficient mechanisms must be available to identify events for review by the trauma PI program. Issues that must be reviewed will revolve predominately around:

1. System and process issues such as documentation and communication
2. Clinical care, including identification and treatment of immediate life-threatening injuries (ATLS)
3. Transfer decisions

- The facility must have sufficient mechanisms available to identify events for review by the trauma PI program. (CD 16-10)

Multidisciplinary Trauma Committee

- The multidisciplinary trauma peer review committee must meet regularly, with required attendance of medical staff active in trauma resuscitation, to review systemic and care provider issues, as well as propose improvements to the care of the injured (CD 2–18)