

MICHIGAN ANNUAL REGION 1 TRAUMA REPORT-2020

REGION 1

Statutory Reference: R325.132 Rule 8 (3) (a) At least quarterly, a region shall submit evidence of ongoing activity, such as meeting notices, minutes to the department. Annually the regional trauma advisory council shall file a report with the department which describes progress toward system development, demonstrates ongoing activity, and includes evidence that members of the regional trauma advisory council are currently involved in trauma care.

OVERVIEW AND ASSESSMENT OF RESOURCES

Region 1 is home to Lansing, Michigan's capital, and per the 2017 census has a population of 9,986,857 million citizens. The region, covering 9 counties, has 11 hospitals, 104 Emergency Medical Services (EMS) agencies and 8 health departments. The region's 7 Medical Control Authority Medical Directors are actively engaged in the Regional Trauma Network (RTN) activities. The RTN Board continues to work with the Region 1 hospitals and EMS agencies as new trauma facilities become verified and designated to update the triage and transport process and get the right patient to the right facility in a timely manner.

The Region 1 Trauma Network started in 2014 with one Level I trauma facility in the entire region. One of the priority areas over the past 6 years has been supporting trauma facility development. That work continues into this third application period. Region 1 still has 5 facilities yet to go through the verification and designation process. The Regional Trauma Coordinator (RTC) continues to work with the trauma program staff readying facilities for verification. Trauma staff have excelled in supporting the system, sharing examples of PIPS documents, policies, or activation criteria they developed. The seasoned trauma program staff continue to mentor newer programs and serve as subject matter experts (SME's) on the regional committees. At the end of 2020 Region 1 had one American College of Surgeons (ACS) Level I trauma facility, one ACS Level II trauma facility, two State of Michigan verified Level III trauma facilities, and two State of Michigan verified Level IV facilities. There is one facility that is awaiting their ACS Level III visit, which was delayed due to COVID and four facilities that has applied for State of Michigan Level 4's and are awaiting verification visits, also delayed due to COVID.

Medical Control Authorities:

MCA Name	Medical Director
Tri County Medical Control Authority	Robert Orr, DO
Jackson County Medical Control Authority	Michael Fill, DO
Washtenaw/Livingston Medical Control Authority	Robert Domeier, MD
Lenawee County Medical Control Authority	Donald Brock, DO
Gratiot County Medical Control Authority	Tony Mills, MD
Hillsdale County Medical Control Authority	Osama Sheth, MD
Shiawassee County Medical Control Authority	Don Edwards, DO

Designation Status of Facilities in Region:

Facility Name	Designated Yes or No	Level of Designation
Sparrow Hospital	Yes	Level I
Henry Ford Allegiance	Yes	Level II
Mid-Michigan Gratiot	Yes	Level III
McLaren Greater Lansing	Yes	Level III
Eaton Rapids Medical Center	Yes	Level IV
Sparrow Clinton	Yes	Level IV
Memorial Healthcare	No	Provisional Level III
Sparrow Eaton	No	Provisional Level IV
ProMedica Charles and Virginia Hickman Hospital	No	Provisional Level IV
Hillsdale Hospital	No	Provisional Level IV
St. Joe Livingston	No	Provisional Level IV

Governance:

Regional Trauma Network (RTN) Board

	Name and Title
Chairperson	Robert K Orr, DO
Vice Chairperson	Vacant – Dr. Maino retired

Regional Trauma Advisory Council (RTAC)

	Name and Title
Chairperson	Robert K Orr, DO
Vice Chairperson	Vacant – Dr. Maino retired

Regional Professional Standards Review Organization

	Name and Title
Chairperson	Vacant – Dr. Kepros left Sparrow
Vice Chairperson	Penny Stevens

Governance Activity Report:

- **Regional Trauma Network Board (RTN Board):** The Region 1 RTN Board continues to provide guidance on regional trauma network building, inclusion of EMS in trauma activities and development of the RPSRO. Region 1 has had several medical director positions turn over, and the RTC continues to work on educating the new MCA Medical Directors on the role they play in the RTN. Attendance has fluctuated and the RTC and RTN chair continue stress the importance of meeting attendance. COVID-19 has greatly affected the meeting attendance and frequency. The MCA Medical Directors who have remained constant educate the regional trauma partners on the protocol updates and evidence-based paramedicine regarding the care of trauma patients. The District 1 Healthcare Coalition Medical Director provides preparedness updates and education at the RTAC meetings. 2020 found Region 1 faced with the arrival of COVID-19 and the reassignment of many of the hospital trauma staff to cover the response to the wave of hospitalized and critical care patients with the virus. Many of the trauma programs are still not back to full staffing, as Michigan starts to show signs of a second surge of patients.
- **Regional Trauma Advisory Council (RTAC):** The RTAC meetings have continued to evolve as the trauma network matures. In 2020, the RTAC meetings focused heavily on writing the objectives for the new application, selecting injury prevention topics of focus and updating the regional injury prevention plan, and educational question and answer sessions in preparation for verification visits.

In 2020, and with the large surge of hospitalized and critical care patients due to COVID the Region 1 Trauma Network has worked very closely with the District 1 Healthcare Coalition (D1RMRC) to ensure a connection between trauma and

preparedness. The D1RMRC has provided regular updates regarding COVID and has provided supplies like PPE and medications to hospitals. The trauma network has adopted the D1RMC's communication plan and continues to educate trauma partners on the alternate communication options available if there is an event causing the loss of the normal means of communication. The RTAC will be creating an informational flyer with the different communication options available. At every RTAC meeting there is an agenda item regarding preparedness, pediatrics, and injury prevention. The Injury Prevention picks a different topic every month to do injury prevention awareness on. The tools created by the committee include informational flyers, brochures, and social media ready posts.

- **Regional Professional Standards Review Organization (RPSRO):** The Region 1 RPSRO has established processes for meetings and data review. Each facility has designated staff to participate on the RPSRO, and at the upcoming meeting the group will select a new chairperson. The first RPSRO inventory has been completed, and the second will be ready for the last meeting of 2020.

Work Plan Objective Progress and Highlights

Injury Prevention

Indicator 306.2: The RTN is active within the region in the monitoring and evaluation of regional injury prevention activities and programs.
Regional Score: (3) The RTN monitors and evaluates injury prevention activities and programs in the region.
Objective: The RTN will request and review available Region 1 injury data which will be used to provide guidance on regional injury prevention plans and IP education and outreach needs. Data will be monitored quarterly.
Progress: Completed - Based on past injury prevention data the region continues to focus on falls and seat belt usage. For 2019 they included TBI prevention education. Stop the Bleed courses have been conducted in all Region 1 counties and all hospitals have trainers for their communities. Courses have been put on hold due to COVID concerns. The Injury Prevention Committee began their new application period objective regarding monthly IP topic education and social media posts. This has been very well received.

Indicator 203.5: The RTN has developed a written injury prevention plan. The injury prevention plan is data driven and targeted programs are developed based upon high injury risk areas. Specific goals with measurable objectives are incorporated into the injury prevention plan.
Regional Score: (3) There is a written plan for coordinated injury prevention programs within the region that is linked to the regional trauma system plan, and that has goals and time-measurable objectives.
Objective: By December 2017, and upon request through December 2019, all the Region 1 Facilities will update the RTN with current injury prevention activities offered. This information will be used to update the regional injury prevention resource and regional plan. The regional plan will include specific strategies to address regionally identified (data driven) issues relating to trauma. A priority focus will be: Adult/Child passenger restraints, EMS pediatric restraints and traumatic brain injury and concussions.
Progress: Completed, with updates done as needed.

Communications

<p>Indicator 302.10: There are established procedures for EMS and trauma system communications for major EMS events or multiple jurisdiction incidents that are effectively coordinated with the overall regional response plans.</p>
<p>Regional Score: (3) There are written regional EMS communications procedures for major EMS events. These procedures do not involve other jurisdictions and are not coordinated with the overall regional response plans or incident management system.</p>
<p>Objective: By June 2018, the RTC coordinate the development of an informational tool for the RTN and RTAC membership addressing the regional communication options available for use during MCI.</p> <ul style="list-style-type: none"> • The RTN will encourage each MCA to have a written communication plan and to communicate the plan to the hospitals by June 2019. This information will be shared during the RMCAN meetings. <p>District 1 Healthcare Coalition leadership will be included in RTAC education sessions, to ensure understanding of preparedness plans as they relate to Trauma and Mass Casualty.</p>
<p>Progress: Completed - All Region 1 hospitals participate in the District 1 Regional Medical Response Coalition communications planning which addresses loss of communications. This plan and modes of communication are tested monthly. The RTAC meetings include healthcare preparedness education as an agenda item.</p>

<p>Indicator 302.9: There is a procedure for communications among medical facilities when arranging for inter-facility transfers including contingencies for radio or telephone system failure.</p>
<p>Regional Score: (2) Inter-facility communication procedures are generally included in patient transfer protocols for each medical facility but there is no regional procedure.</p>
<p>Objective: By June 2019, the RTN will confirm the inclusion of communication system redundancies information in 100% of hospital inter-facility transfer protocols. Trauma staff will be educated on the hospital policies for transfer communication during system failure.</p>
<p>Progress: Completed - The communication redundancy information is not currently in the interfacility transfer policies. It was agreed that staff could find the information easily in the hospital disaster planning policies. The new application includes a goal of creating an informational flyer with this information for each trauma program to use.</p>

Infrastructure

<p>Indicator 302.1: There is well- defined regional trauma system medical oversight integrating the needs of the trauma system with the medical oversight of the overall EMS system.</p>
<p>Regional Score: (3) The RTN has adopted state approved regional trauma protocols.</p>
<p>Objective: By December 2017, the RTN will review 100% of Region 1 MCA trauma protocols, to continue integrating the needs of the trauma system with the medical oversight of the overall EMS system</p> <ul style="list-style-type: none"> • The RTN will be available to convene upon request to address any recommended trauma protocol changes found during RPRSO reviews. • The RTN will work with the Trauma Steering Committee to make the recommended changes to protocols as identified
<p>Progress: Completed - The new EMS protocols regarding the care of trauma patients was discussed at a RTAC meeting and all partners were given both electronic and paper copies of the protocols. The RTN remains available to convene upon request.</p>

<p>Indicator 302.2: There is a clearly defined, cooperative, and ongoing relationship between regional trauma physician leaders and the EMS system medical directors in the region.</p>
<p>Regional Score: (3) Trauma medical directors or designated trauma representatives participate in EMS oversight through participation in local medical control authority meetings. However, there is no formal written relationship.</p>
<p>Objective: By October 2017, The Trauma Steering committee, will establish meeting dates and committee goals, which includes establishing standards for annual review of Region 1 MCA trauma protocols, by the regional facility Trauma Medical Directors.</p>
<p>Progress: Completed - The Steering Committee will be convened as needed.</p>

<p>Indicator 303.2: The regional trauma network plan should ensure that the number, levels, and distribution of trauma facilities are communicated to all partners and stakeholders. The RTN should develop procedures to ensure that trauma patients are transported to an appropriate facility that is prepared to provide care.</p>
<p>Regional Score: (3) There is a regional system plan and a diversion protocol that identifies the number, levels, and distribution of trauma facilities. System updates using available data not routine.</p>
<p>Objective:</p> <ul style="list-style-type: none"> • By December 2017 and ongoing through December 2019, the RTN will monitor the utilization of the regional trauma triage and transport protocol and make updates based on this process.

<ul style="list-style-type: none"> By December 2018 and ongoing through December 2019, the Steering Committee membership will have reviewed regional trauma diversion data yearly
<p>Progress: Once Biospatial™ reports have been developed, monitoring the triage and transport protocol will be possible.</p>

<p>Indicator 303.1: The regional trauma plan has clearly defined the roles, resources and responsibilities of all acute care facilities treating trauma, and of facilities that provide care to specialty populations (burns, pediatrics, other).</p>
<p>Regional Score: (4) The regional trauma plan addresses the roles, resources and responsibilities of licensed acute care facilities and specialty care facilities.</p>
<p>Objective:</p> <ul style="list-style-type: none"> By January 2018, The RTN will reassess Region 1 trauma assets and the trauma level verification/designation development progress. As Region 1 Hospitals develop their trauma programs, through December 2019, the trauma program managers will educate MCA leadership and Region 1 EMS agencies on their facility activation criteria updates, provisional, designation and verification status changes, as well as trauma patient outcomes upon agency request
<p>Progress: Completed - Trauma assets are regularly assessed and updated and as hospitals become verified and designated the information is sent out to the regional partners. The Region 1 RTC keeps a master list of these assets for all the hospitals available electronically.</p>

Regional Performance Improvement

<p>Indicator 206.1: The RTN generates data reports to evaluate and improve system performance.</p>
<p>Regional Score: (3) Regional data reports are done on an annual basis, but are not used for decision-making and/or evaluation of system performance</p>
<p>Objective: As guided by the State of Michigan Trauma Administrative rules, the RTC will generate a yearly data report to all Region 1 stakeholders discussing the regional trauma system and performance improvements metrics outlined in the Administrative Rules. By December 2017 and ongoing through December 2019. The RTAC Education Committee will disseminate a quarterly newsletter to all stakeholders including data driven educational opportunities, trauma updates and injury prevention information.</p>
<p>Progress: Completed - The annual reports have been completed per administrative rules. The newsletter template has been created and several were disseminated.</p>

Indicator 302.6: The region has adopted mandatory regional pre-hospital triage protocols to ensure that trauma patients are transported to an appropriate trauma center based on their injuries. The triage protocols are regularly evaluated and updated to ensure acceptable and region-defined rates of sensitivity and specificity for appropriate identification of a major trauma patient.

Regional Score: (3) Regional triage criteria are used by all pre-hospital providers. There is no current process in place for evaluation.

Objective:

- By December 31, 2017, the RTN in collaboration with the RPSRO and key RTAC subcommittees will work to develop and approve a prehospital triage/destination protocol for use in Region 1.
- By June 2018, the RTN will develop a plan to educate Region 1 EMS agencies about 60 second time outs and handoff information.

Progress: Complete - Region 1 has a destination protocol and all hospitals use 60 second timeouts for EMS reports at bedside.

Indicator 303.4: When injured patients arrive at a medical facility that cannot provide the appropriate level of definitive care, there is an organized and regularly monitored system to ensure the patients are expeditiously transferred to the appropriate, system defined trauma facility.

Regional Score: (2) There is a fragmented system within the region, usually event based, to monitor inter-facility transfer of trauma patients.

Objective: By June 2019, the Trauma Steering Committee will review data regarding inter-facility transfer times, transfer delays and multiple facility transfers. Utilizing this data, the committee will suggestions for process improvement and education regarding trauma transfers.

Progress: Incomplete due to lack of specific data needed regarding transfers.

Indicator 205.2: Collected data from a variety of sources are used to review the appropriateness of all-inclusive regional trauma performance standards, from injury prevention through rehabilitation.

Regional Score: (1) There are no written, quantifiable regional system performance standards or performance improvement processes.

Objective: By June 2019, the RPSRO will meet quarterly to review:

- Trauma related EMS and transfer patient data for process improvement opportunities
- The RPSRO will monitor and report performance measures outlined in the Administrative Rules and in the regionally selected PI measures.

RTN will develop recommendations to address gaps and barriers identified by the RPSRO

Progress: Incomplete due to lack of specific data needed regarding transfers.

Indicator 303.4: There is a regional trauma bypass protocol that provides EMS guidance for bypassing a trauma care facility for another more appropriate trauma care facility.

Regional Score: (4) There is a regional bypass protocol that allows bypass of an acute care facility and provides guidance on what the most appropriate facility is based on the patient's injury.

Objective: The RTN will conduct a yearly review of the Region 1 Trauma Triage Protocols for inclusion of the bypassing of a trauma care facility based on acuity, or the specialty care needs of the patient. The RTN will review these protocols for adherence to state guidelines.

Progress: Partially Completed - The Region 1 protocol addresses this through inclusion of the CDC Field Triage Guidelines. There is no data available to review accuracy of triage based on acuity or special needs of the patient.

Indicator 205.3: The RTN data in the state trauma registry is used to identify and evaluate regional trauma care and improve the use of resources.

Regional Score: (2) There is limited access to the state trauma registry. Data extraction is not available to evaluate performance or improve resource allocation.

Objective: By September 2017 and ongoing through December 2019, the RTN and RTAC will continue to monitor, facilitate, and evaluate participation the state trauma registry. Progress indicator will be 100 % of facilities have signed data use agreements, and data entered into ImageTrend.

Progress: Complete

Continuum of Care

<p>Indicator 308.1: The regional work plan addresses the integration and participation of rehabilitation services within the continuum of care for trauma patients.</p>
<p>Regional Score: (1) There are no written plans for the integration of rehabilitation services with the regional trauma system or with trauma centers.</p>
<p>Objective:</p> <ul style="list-style-type: none"> • By March 2018, the Region 1 RTAC will identify key staff to represent Rehabilitation Services at the Region 1 Trauma meetings. • By June 2018, the RTAC will have a Rehabilitation Committee tasked with identifying rehabilitation facilities in Region 1 and the strengths and weaknesses in regional rehabilitation services availability.
<p>Progress: Staff has been identified but are not attending meetings until there is direction as to how to proceed with this indicator.</p>

Trauma Education

<p>Indicator 310.3,4,6: The regional trauma network establishes and ensures that appropriate levels of EMS, nursing and physician trauma training courses are provided on a regular basis.</p>
<p>Regional Score: (2) There are regional trauma training standards for EMS personnel, nurses, and physicians but there is no requirement for course attendance.</p>
<p>Objective: By September 2017 and ongoing through December 2019, the Region 1 RTC will disseminate available trauma educational opportunities to all stakeholders. This education will include trauma patient care, injury prevention opportunities and District 1 preparedness educational offerings.</p>
<p>Progress: Completed - The region has an educational plan that includes ACS educational requirements, as well as suggested courses for differing areas of patient care. Information regarding available educational opportunities is shared with partners.</p>

<p>Indicator 310.10: As new protocols and treatment approaches are instituted within the regional trauma system; structured processes are in place to inform or educate all personnel of those changes in a timely manner.</p>
<p>Regional Score: (2) The region has developed a process to inform or educate all personnel on new protocols or treatment approaches, but it has not been tried or evaluated.</p>
<p>Objective: The Region 1 RTC will disseminate information regarding any regional or statewide protocol changes or updates to all ED/Trauma/EMS/MCA partners.</p>
<p>Progress: Completed – This was done during RTAC meetings.</p>

Regional Summary:

This annual report documents Region 1 Trauma System Development over the 3-year application period ending 2020. The region was recognized as a regional trauma network in 2017 for a 3-year period by the Michigan Department of Health and Human Services (MDHHS) as required by statewide administrative rules. As noted in the report, with only a few exceptions, the workplan objectives that were developed in 2017 to drive regional trauma system development have been met, due in part to the commitment regional stakeholders have made to the system. The next application period will capitalize on this progress and strengthen the gains made.

Region 1 has an educational plan, injury prevention plan, and an injury prevention resource tool that is updated yearly. The Regional RTAC meetings focused on education to help the regional hospitals build and maintain their trauma programs, as well as standards of care, care of special populations, and policies needed to address the needs of trauma patients. Emergency preparedness items, medical surge education, and special populations were also added to the meeting agendas because Region 1 recognizes these areas as high stress, specialized forms of care.

On June 26, 2019, the District 1 Regional Medical Response Coalition (D1RMRC) conducted a functional exercise to assess command and control activities in response to a region-wide emergency incident. It was expected that all hospitals should be prepared to receive, stabilize, and manage trauma patients. An emergency resulting in large numbers of trauma patients may require D1RMRC involvement to ensure those patients who can most benefit from trauma services receive priority for transfer to regional trauma centers. It was expected that hospitals ensure sufficient availability of operating rooms, surgeons, anesthesiologists, operating room nurses, and surgical equipment and supplies to provide immediate surgical interventions to patients with life threatening injuries. To address this objective the exercise planners added an inject into the exercise to address the need for available operating rooms for injured patients. Each hospital was asked to share the number of available and staffed operating rooms via EMResource™. All Region 1 hospitals responded to the request.

In January of 2020, the Region had a tabletop pediatric exercise that looked at the triage and transport of a large number of injured pediatric patients to regional hospitals. The exercise also took a hard look at the tracking system for these patients as well. From the exercise, the regional healthcare coalition and the trauma network identified a need for the region to utilize EMResource™ to track and locate patients, as well as a bed tracking page that looks specifically at pediatric bed availability. The EMS for Children lead was in attendance for this discussion and a pediatric bed tracking page was created for use during events involving large numbers of pediatric patients.

The Region 1 Trauma Network acknowledges that in the event of a mass casualty event, the number of trauma patients will be high, and resources limited. It is because of this that Region 1 trauma partners work with the D1RMRC to ensure regional trauma center staff have knowledge of preparedness activities, and their role in a medical surge.

Regional System Evaluation in accordance with Administrative Rule Requirements:

- √ Regional trauma network and committee meetings have taken place as scheduled (quarterly) in accordance with the Open Meetings Act.
If not completed, please explain: Missed one meeting due to COVID-19, but an email with information on all agenda items and state updates was sent to the RTN and RTAC.
- √ Schedule and information regarding RTN Board and RTAC posted on the trauma website
- √ Annual confirmation that members of the RTAC are currently involved in trauma care completed.
- √ All MCA's are participating in the RTN
If not, what efforts have been made to address:
- √ Documentation that all hospitals in the trauma network are participating in:
 - √ Regional Injury Prevention
 - √ Regional Performance Improvement
 - √ Submission of registry data to ImageTrend
- √ Regional trauma plans completed (attach copy of plan or state "in progress")
 - √ Regional Injury Prevention
 - √ Regional Trauma Education
 - Regional Performance Improvement – in progressIf not completed, which plans are missing and why?
- √ Regional PI process in place; Inventory data reviewed, and trends (if noted) are being monitored. PI process that includes two levels of review is place (as needed). RPRSO corresponds annually (at a minimum) with RTN regarding PI. Minutes, materials stored by RTC.
If not completed, please explain:

RTN Board Chairperson: _____ Date: _____

Regional Trauma Coordinator: _____ Date: _____

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If not completed, please explain:

RTN Board Chairperson:



Date: 1-26-2021

Regional Trauma Coordinator:



Date: 2-2-2021