

MICHIGAN ANNUAL REGION 2S TRAUMA REPORT- 2023

REGION 2 SOUTH

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

Demographics: Region 2 South (R2S) is the most populous region in the State of Michigan with more than 2.2 million residents. The region is comprised of Monroe, Washtenaw, and Wayne counties, and includes the City of Detroit. The region has two international border crossings with Canada and shares a border with northwestern Ohio.

Region 2 South is served by eighteen acute care hospitals, ninety-two emergency medical service (EMS) agencies, and four medical control authorities (MCAs). The region is home to fourteen American College of Surgeons Committee on Trauma (ACS-COT) verified trauma centers, including five Level I, four Level II, and four Level III, and two Level IV designated by the State of Michigan. The children of region 2 south are served by two Level I and one Level II pediatric centers. The region has two Adult ABA Verified Burn Centers and two Pediatric ABA Verified Burn Center.

Region 2 South has 34 colleges and universities in the area and professional sporting events. The MCA's, healthcare coalition, trauma hospitals and EMS, provide medical care to the region.

Medical Control Authorities:

MCA Name	Medical Director
Washtenaw / Livingston County	Dr. Robert Domeier
HEMS	Dr. Howard Klausner / Dr. Evans
Monroe County	Dr. Daniel Kemple
DEMCA	Dr. Robert Dunne

Designation Status of Facilities in Region:

Facility Name	Designated Yes or No	Level of Designation
Corewell Health Pointe Hospital	Yes	ACS Level III
Corewell Health Hospital Dearborn	Yes	ACS Level II
Corewell Health Hospital Trenton	Yes	ACS Level II
Corewell Health Taylor Hospital	Yes	Michigan Designation Level IV
Corewell Health Wayne Hospital	Yes	ACS Level III
C.S. Mott Children's Hospital	Yes	ACS Level I Pediatric
Children's Hospital of Michigan	Yes	ACS Level I Pediatric ABA Verified Pediatric Burn Center
Detroit Receiving Hospital	Yes	ACS Level I ABA Verified Adult Burn Center
Garden City Hospital	No	In process: Site visit
Henry Ford Hospital	Yes	ACS Level I
Henry Ford Wyandotte Hospital	Yes	ACS Level III
ProMedica Monroe Regional Hospital	Yes	Michigan Designation Level III
Sinai-Grace Hospital	Yes	ACS Level II
St. John Hospital-Ascension Medical Center	Yes	ACS Level I Adult ACS Level II Pediatric
Trinity Health St. Joseph Mercy Hospital	Yes	ACS Level I
Trinity Health Mercy Chelsea Hospital	Yes	Michigan Designated Level IV
Trinity Health St. Mary's Mercy Hospital, Livonia	Yes	ACS Level II
University of Michigan Medical Center	Yes	ACS Level I ABA Verified Adult Burn Center

Governance:

Regional Trauma Network (RTN) Board

	Name and Title
Chairperson	Dr. Robert Domeier, MCA Director of Washtenaw/ Livingston County
Vice Chairperson	Dr. Howard Klausner, MCA Director of HEMS

Regional Trauma Advisory Council (RTAC)

	Name and Title
Chairperson	Dr. Allan Lamb, Trauma Medical Director at Henry Ford Wyandotte
Vice Chairperson	Dr. Howard Klausner, Medical Control Director of HEMS

Regional Professional Standards Review Organization

	Name and Title
Chairperson	Dr. Allan Lamb, Trauma Medical Director at Henry Ford Wyandotte
Vice Chairperson	Dr. Jeff Johnson, Trauma Medical Director at Henry Ford Main

Governance Activity Report:

Regional Trauma Network Board (RTN Board): The RTN in conjunction with Regional Trauma Advisory Council(RTAC) is dedicated and committed to working with the trauma programs in the Region to ensure quality care and improved outcomes for the injured. Regional Trauma Advisory Council (RTAC): has continued to strive be to be outstanding in providing trauma care in this area.

There have been some changes with RTN board as Dr. Dunne is the new MCA for DEMCA and two others have left their positions. Region 2 South Healthcare Coalition had changes in their leadership, Dr. Stephanie Wise, the new Medical Director, and Dr. Strong Deputy Medical Director. Region 2 South Trauma Advisory Council will collaborate with region 2 South Healthcare Coalition and participate in a disaster exercise in 1st quarter of 2024.

Regional Trauma Network, Regional Trauma Advisory Council (RTAC) , Regional Professional Standard Review Organization (RPSRO) and the Trauma Subcommittees have continued to address the objectives as presented. Review of the objectives was done in Nov 2023.

All trauma committee memberships have been updated to ensure accuracy as many changes have taken place in 2023.

Regional Professional Standards Review Organization (RPSRO): The RPSRO is continuing to track tourniquet usage from 2019- 2023.This data provides information on whom applied the tourniquet, mechanism of injury, mode of transport to hospital, did the use of tourniquet activate the trauma system, appropriate use, appropriate application, patient outcome, monitored time of application and removal time to prevent complication of tourniquet use.145 tourniquets have

been applied during 2023. This is an increase from 122 in 2022. Tourniquet data show police applied 41% of the tourniquets as police are typically first on scene. EMS applied 31% tourniquets. Massive transfusion Protocol was used 17% of the time. CAT tourniquets were used 50% of the time and 50% of the time other types of tourniquets were used. 36% of trauma facilities have started to activate their trauma system with the tourniquet application which was not tracked in 2022. The facilities receiving tourniquets from pre-hospital EMS show that the patients are taken to the correct facility for care. Level I facilities received 62% of the patients with tourniquets, Level II facilities received 35% patients, Level III received .02% and Level IV received 2 patients by private vehicle, those tourniquets were applied by ER. Education is needed on time applied and removed with plan to update Police, Fire and EMS regarding the importance of documenting time applied. Plan to acknowledge someone who saved a life by applying a tourniquet, this will be done by the trauma facilities after presenting to RTAC.

TXA is being tracked in the Region with 13 cases reviewed by RPRSO with only one mortality noted. EMS is using TXA protocol which includes patients that must have evidence of blood loss, systolic blood pressure below 90 with trauma related causing blood loss, adult, destination to a Level I or Level II and long extractions times to identify proper use of TXA. The receiving trauma hospital is not giving a second dose due to quick surgical intervention. In the 1st quarter of 2024 a request for data from biospatial will be made to ensure data is accurate.

The “real time” reporting mechanism will identify patients that may have been initially transported to an inappropriate facility by focusing on the second transfer. Currently there were 8 double transfers, for 2023. Reviewed and loop closure completed. No systemic issues noted.

2023 Diversion Log started. There were 5 diversions in 2023 due to OR HVAC repairs, no beds/ Holds in bed, Back up generated failed, generated power test failed knocking out critical infrastructure water, communication, and power. MCA's aware of the diversion time started and when ended.

Injury Prevention

Indicator 325.135(2) 306.2:

The RTN is active within the region in the monitoring and evaluation of regional injury prevention (IP) activities and programs.

Regional Score: 3

Objective: By January 2022, the RTN will monitor and evaluate injury prevention programs through annual analysis of regional injury pattern data from the trauma registry to develop coordinated and targeted injury prevention offerings.

By January 2022, a resource guide of program offerings will be distributed to region 2 South trauma network partners to avoid duplication of efforts and facilitate collaboration of injury prevention initiatives.

Progress: Region 2 South injury prevention resource guide has been updated to include current IP coordinators, contact information, with programs available in trauma facilities network. The RTN evaluates the Inventory Report for injury patterns, ages of injury and top mechanism of injury.

Indicator 325.135(2) 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: 2

Objective: By January 2022, the RTN will monitor and evaluate injury prevention programs by annually analyzing regional injury data from the trauma registry to coordinate prevention programs targeting the greatest community injury burden.

By January 2022, the RTN will perform annual surveys of regional trauma facilities to confirm injury prevention program alignment with regional injury patterns.

Progress:

RTN and RPSRO review the RPSRO Inventory Report analyzing regional injury data from trauma registry to develop coordinated and targeted injury prevention programs offered. Region 2 South injury prevention programs resource guide was shared with the RTN. Region 2 South has updated the Injury Prevention plan and included aspects of SOM Injury Prevention Plan

Progress:

Injury prevention committee reviewed programs and top three MOI. Developing a plan to provide education to the public. Region 2 South has a monthly newsletter that disseminated through many professional organizations. Region 2 South injury prevention committee updated the resource guide and reviewed how to avoid redundancies in the injury prevention programs. A few IP coordinators developed an evaluate form to ensure programs are effective.

Indicator N/A 207.4 (New Indicator from Strategic Plan):

A trauma system public information and education plan exists that heightens public awareness of trauma as a disease, the need for trauma care system and the prevention of injury. The RTN will promote evidence based primary injury prevention activities and projects.

Regional Score 2 at present, 2022 score was a 1

Objectives: By January 2022, Region 2 South education materials will be reviewed by the Injury Prevention Subcommittee on an annual basis to ensure top MOI's and that information reflects the best available evidence-based programs.

Progress By January 2022, Region 2 South education materials are reviewed by the Injury Prevention Subcommittee on an annual basis.

Communications

Indicator 325.132(3)(c)(ii)(B) 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.

Regional Score: 5

Objective: The RTN and Region 2 South Healthcare Coalition effectively coordinated with the overall regional response plan during the pandemic.

The RTN will annually review this indicator to ensure integration of region 2 South Healthcare and the Region 2 South Trauma System continues throughout this application period.

Progress: MET

The RTN and the healthcare coalition continue to collaborate together and will continue in the next application period, 2024-2026. The Regional Trauma Coordinator attends Region 2 Healthcare Coalition via TEAMS. Report is given regarding trauma coalition activities at the Planning board meeting. Training available through the Healthcare Coalition is included in Region 2 South monthly newsletter. This will continue throughout the next application period, 2024-2026.

Indicator 325.132(3)(c)(ii)(B) 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.

Regional Score: 5

Objective: By January 2021, the RTAC will obtain and review the after-action report from the COVID-19 Pandemic Response to identify opportunities for improvement.

Progress: MET

After Action plan was developed following COVID -19 Response. This has been met with collaboration of the regional trauma facilities, MCA's and Healthcare Coalition. Radio communications within trauma facilities are checked monthly by the Healthcare coalition on a regular basis. The RTN will annually review this indicator to ensure effectively coordinated communications procedures for patient transfer in Region 2 South Trauma System continues throughout the new application period.

Indicator N/A 105.7 (New Indicator from Strategic Plan):

An assessment of the needs of the general medical community, including physicians, nurses, pre-hospital care providers and others, concerning trauma system information has been conducted.

Regional Score: 1

Objective: By January 2022, a needs assessment of the broad medical community regarding the types of trauma information they would find useful will be completed by the region. After the assessment has been completed the RTN will develop a communication tool to provide information and resources to the broad medical community.

Progress: At this time Region 2 South has been unable develop a needs assessment of the medical community. During the new application 2024-2026 a needs assessment will be developed.

Infrastructure

Indicator 325.132(3)(c)(ii)(E) 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.

Regional Score: 3

Objective: Beginning January 2022, the medical control authorities in the Region will provide an annual report to the RPSRO that evaluates the effectiveness of on-line and off-line medical control in correlation with registry outcomes.

Progress: The evaluation of on-line and off-line medical control in the region will provide an annual report to the RPSRO that evaluates the effectiveness of on-line and off-line medical control in correlation with registry outcome to move to a 4.

Indicator 325.132(3)(c)(ii)(E) 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.

Regional Score: 5

Objective: To maintain the highest level of cooperation within the Region, the Region 2 South Steering Committee and the RPSRO will continue to meet regularly to coordinate efforts between trauma center medical directors and EMS medical directors.

Progress: MET Regional RPSRO and Steering Committee continues to meet regularly with collaboration with EMS Directors.

Indicator 325.135(6) 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).

Regional Score: 5

Objective: During 2020-2023 application period the medical control authorities will provide a report to the RPSRO if a systemic problem is found. The RPSRO reviews double transfers and has not found a systemic problem in three years collecting data.

Progress: MET. The RPSRO reviews double transfers and there have been no systemic problems noted in the three years data has been collected.

Indicator 325.135(6)(c) 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.

Regional Score: 1

Objective: The RPSRO will perform an annual audit of all trauma center diversions to assure the appropriate use of diversion and accuracy of trauma center resources.

Progress: Region 2 South has no diversion protocols. A diversion log was created in 4th quarter to track any diversions and reason for diversion. This was shared with RPSRO in Dec via RPSRO Inventory. Medical Control authorities are notified when a trauma center is on diversion and when diversion is lifted.

Indicator 325.132(3)(c)(ii)(E) 208.2: (New Indicator from Strategic Plan)

The incident management and trauma systems have formal established linkages for system integration and operational management. This is directed at the Trauma Network's collaboration with the Regional Healthcare Coalition.

Regional Score: 5

Objective: By March 2021, the RTN will identify formal liaisons and develop a reporting structure between Region 2 South Healthcare coalition.

Progress: MET The regional trauma coordinator attends R2S Healthcare coalition meetings. Trainings are included in the monthly newsletter.

Indicator 325.136(d) 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: 5

Objective: The RPSRO reviews double transfers to ensure the patient was transported expeditiously to the appropriate trauma facility. The RPSRO has not found a systemic issue occurring.

Progress: MET The RPSRO reviews double transfers to ensure the patient was transported expeditiously to the appropriate trauma facility. The RPSRO has not found a systemic issue with double transfers in the last 3 years through Dec. 31st, 2026. Ongoing review will occur by the RPSRO/RTAC to ensure interfacility transfers are not an issue.

Indicator 325.135(6)(b) 302.6:

There are mandatory system-wide pre-hospital triage criteria to ensure that trauma patients are transported to an appropriate facility based on their injuries. These triage criteria are regularly evaluated and updated to ensure acceptable and system-defined rates of sensitivity and specificity for appropriately identifying the major trauma patient. This indicator is directed at the process for prehospital triage of trauma patients.

Regional Score: 4

Objective: By March 2021, the RTN, with the cooperation of the RPSRO, will have data from the management information system i.e., Michigan Emergency Medical Services Information System (MIEMSIS) that will evaluate the effectiveness of field triage of the trauma patient with the use of Biospatial.

Progress: Process in place to submit a data request for Region 2 South from biospatial from epidemiologist.

Regional Performance Improvement

Indicator 325.134(4) 206.1:

The RTN uses data reports to evaluate and improve system performance. This refers to any data reports and the RPSRO Inventory.

Regional Score: 2

Objective: By June 2021, data will be accessible by the RTN and RPSRO to review on an annual basis for decision-making and/or evaluation of system performance. Once fully implemented, regional data reports can be analyzed and used to improve system performance effectiveness.

Progress: The RTN and RPSRO review the RPSRO Inventory bi-annually.

Indicators 325.135 (6) (d) 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. This should focus on the development of a regional performance improvement process

Regional Score: 2

Objective: By March 2021, the RTAC will use a variety of resources to review and revise the written performance standards for each of the following components of trauma care: injury prevention, communications, regional performance improvement, education, and continuum of care.

Progress: Data request will provide more information to be used in the Region. This will be addressed in the new application 2024-2026.

Indicator 325.136(d) 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: 5

Objective: By March 2021, the RTN, in collaboration with the RPSRO, will review data from Biospatial field triage/destination protocol data reports to determine a bypass tracking process.

Progress: MET. While reviewing double transfers any issues regarding field triage or destination protocol would be reviewed at the RPSRO meeting. MCA Directors review data from biospatial to determine if protocols are followed.

Continuum of Care

Indicator 325.132(3)(c)(ii)(F) 308.1:

The lead agency has incorporated, within the trauma system plan and the trauma center standards, requirements for rehabilitation services including interfacility transfer of trauma patients to rehabilitation centers. The regional work plan addresses the integration and participation of rehabilitation services within the continuum of care for trauma patients.

Regional Score: 1

Objective: By March 2022, the RTN will obtain a list of the rehabilitation facilities within region 2 South and identify each as one of the following: acute inpatient rehabilitation, subacute rehabilitation (SAR), nursing home with rehab capabilities, nursing home, inpatient hospice unit, TBI rehabilitation unit, spinal rehabilitation unit, burn rehabilitation unit, or pediatric rehabilitation unit. The list has been shared annually with trauma facilities in the region.

Progress: A list from region 2 South rehabilitation services was compiled in 2022 and shared at RTAC. The trauma centers provided data on what rehabilitation facilities they transfer to a statewide rehabilitation project has begun. The list has been shared annually with trauma facilities in the region.

Trauma Education

Indicator 325.132(3)(C)(ii)(D) 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.

Regional Score: 5

Objective: By March 2021, trauma training resources will be identified by the Education Subcommittee and a plan developed to integrate trauma training throughout the Regional Trauma Network.

Progress: MET Education/training opportunities are shared with Region 2 South trauma centers/MCA through emails or monthly newsletter. Other training opportunities come from webinars, newsletters from trauma society, Region 2 South healthcare coalition, trauma facilities providing education, State of Michigan Division of EMS and System of Care, Preparedness, Medical Control Authority trainings are shared at Education subcommittee and provided in the monthly newsletter.

Indicator 325.132(3)(C)(ii)(D) 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.

Regional Score: 5

Objective: During the 2020-2023 application period the RTN will monitor the process utilized by the Medical Control Authorities and Region 2 South Education Committee to educate all personnel on new protocols, treatment plans, and procedures.

During the 2020-2023 application period the RTN will monitor compliance with new procedures as they are introduced.

Progress: MET During the steering committee meeting TMD will share new protocols with their trauma center. New triage protocol is implanted with minimal changes

Regional Summary: Region 2 South continues to strive to meet work plan objectives. Region 2 South continues to provide high-quality trauma care. The right patient is transported to the right facility in a timely manner. Noticed an increase in gun violence, blunt force trauma, and stabbings in the region which has impacted all Level I and Level II hospitals this year. Region 2 South 3rd highest MOI is blunt and penetrating injuries.

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:

☒ 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 MCAs 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

If not completed, which plans are missing and why?

☒ Regional PI process in place; Inventory data reviewed, and trends (if noted) are being monitored. PI

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:

☒ 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 MCAs 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 Image Trend

☒ Regional trauma plans completed (attach copy of plan or state "in progress")

☒ Regional Injury Prevention

☒ Regional Trauma Education


☒ Regional Performance Improvement

If 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: _____

I Board Chairperson:  Date: 1/22/24

Regional Trauma Coordinator: Denise Kapnick

Date: Jan 22nd, 2024