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Leading the Way: Outcomes over Obstacles

2nd Annual Statewide Trauma Symposium May 4-6, 2022

The Mississippi Trauma Care System Foundation is pleased to host the second annual statewide trauma symposium. The symposium committee selected the MSU-Riley Conference Center as the venue.

This year's symposium offers participants the opportunity to assemble as a statewide team. The 2022 theme will highlight the benefits of the Mississippi Trauma System of Care. Speakers are selected to present subject matter on past benefits and how to continue maturing the trauma system, focusing on achieving the best outcomes and navigating obstacles.

This three-day event is a comprehensive learning opportunity, with inspiring presentations from Mississippi trauma survivors. Speakers from all in-state and out-of-state Level I trauma centers have committed. A two-day cadaver lab is planned. State EMS leaders are planning breakouts. Registry training is included in the agenda, as well as injury prevention. The Mississippi State Department of Health Bureau of Acute Care Services representatives will provide information on the current and future state of the trauma system. Dr. Duncan Donald is hosting a panel presentation. In the next newsletter, MTCSF should confirm a pre-symposium offering of *Rural Topics* and *ABLS* courses on Tuesday, May 3.

Located in the heart of historic downtown Meridian, the MSU Riley Center opened its doors in September 2006 to offer cultural, artistic, and educational experiences like no other in the region. The center includes a fully restored 1889 grand opera house theater and 30,000 square feet of meeting space, including a large exhibit hall, breakout rooms, and boardrooms, all equipped with teleconferencing capabilities and built-in technical features to create the optimal meeting environment.

More information in the next *Trauma Times*. Check out the MSU-Riley Center at: https://www.msurileycenter.com/msurc/assets/publications/MSURC%202018%20Conference%20Center%20Brochure/HTML/index.html

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Empowering Your Trauma Committee

John Gardner, MTCSF Director

If your hospital trauma committee struggles with effective corrective action plans, The International Organization of Standards (ISO 9001) provides an effective solution. ISO 2009:2015 clause 6.2.2 states:
When planning how to achieve its quality objectives, the organization shall determine:

a) What will be done;
b) What resources will be required;
c) Who will be responsible;
d) When it will be completed;
e) How the results will be evaluated.

If you implement these five items into your meeting minutes, corrective action plans, or action reports, you should see improvement.

First, you will better define expectations. For example, you determine the registrar will report on a new metric. The registrar will need help from MSDH or internal IT, and the trauma program manager is responsible. The new metric must be presented at the next meeting by the TPM. The committee will evaluate the data based on state rules & regulations, and the trauma medical director will send outliers a written notification. Everyone knows their role and the goal.

Secondly, you can quickly determine why actions were not completed on time with these five elements in place. For example, it could be a resource failure—IT did not provide the needed report, or the TPM was pulled to patient care and did not get the information to the committee. It could be that the TMD did not send the letters to the outliers, or the letters were ineffective. The committee can take action to address the point of failure.

The most effective quality programs apply this principle to drive improvement. Many Mississippi trauma centers are ISO certified or compliant; but, any hospital or ambulance service can implement this ISO principle. If your trauma committee is struggling with making improvements or project drift, consider how you might implement this plan into your processes to improve outcomes.

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Remember to check the MTCSF Website Calendar for all educational opportunities.
https://mstraumafoundation.org/calendar/

We are always looking for news stories. Send news and announcements to
jgardner@mhanet.org

If your contact information changes or you have staff changes, *please notify both MTCSF and MSDH.*

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SAVE A LIFE

The Mississippi Trauma Care System Foundation recently provided twenty-two officers at the Flowood Police Department with Stop the Bleed training on November 9 and 10, 2021.

Chief Ricky McMillian and Training Sergeant Kyle Himmel know the number one cause of preventable death after an injury is bleeding. Sgt. Himmel facilitated this two-day event.

Beth Alliston, the Trauma Program Coordinator at Merit Health River Oaks, assisted in the skills station training with the officers.

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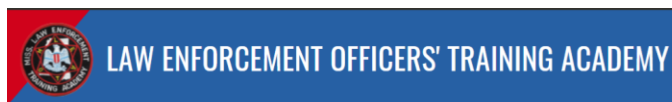
In addition to classroom training and Certificates of Completion, each officer is presented with a Stop the Bleed kit containing a tourniquet, wound packing gauze, compression wrap, warming blanket, and other essentials to stop bleeding on citizens, fellow officers, or themselves. Funding for Stop the Bleed kits/supplies is provided through the Mississippi State Department of Health's Trauma System of Care. The classes are provided as a community outreach of the Mississippi Trauma Care System Foundation.

MTCSF provided Stop the Bleed education and tourniquet kits to fifty-seven students across Mississippi and in two state training academies during October. This American College of Surgeons program is proving to save lives.



The Mississippi Trauma Care System is pleased to replace **Deputy Sheriff Jacy Maher's** tourniquet kit used in the line of duty on November 27, 2021, while working for the Copiah County Sheriff's Department.

Through a grant from The Mississippi State Department of Health, we can replace these tourniquet kits for students we have trained without cost to students.

Deputy Jacy Maher received his original tourniquet kit during a Stop the Bleed ® training course provided by the Mississippi Trauma Care System Foundation on November 18, 2020, at the Mississippi Law Enforcement Officers' Training Academy (*MLEOTA*).

Deputy Maher was one of the first to arrive at the scene of a drive-by shooting. Finding a victim with multiple gunshot wounds, the officer identified the most critical bleeding site as the left arm and applied his tourniquet. Continuing, he identified additional lower extremity wounds that required wound packing and compression dressing application.

The victim survived and was transported to Copiah County Medical Center for treatment and transferred to a higher level of care in the Mississippi Trauma System of Care. Pre-hospital care by trained law enforcement personnel is essential to an effective trauma system.

For more information on hosting a class for law enforcement in your area, contact the Mississippi Trauma Care System Foundation.

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DATA VALIDATION

Amber Kyle, MSN, RN
Director of Trauma Services
University of Mississippi Medical Center

Trauma registry data drives our trauma system at the hospital, district, and state levels. Performance improvement, benchmarking, resource utilization, funding, billing, education, injury prevention, outreach staffing, research, and designation process are all supported by the trauma registry. It is essential to have processes in place to ensure the data used to make clinical and system decisions are high-quality, reliable, and valid.

What is data validation?

Data validation is a process for measuring data completeness, accuracy, and correctness.

Who does it?

Data validation should be a core task of the trauma registrar. Trauma program managers must assume the duty of ensuring data integrity through supervision of data collection, coding, and scoring. The trauma medical director should also participate in data validation by reviewing discrepancies identified in the validation process.

How is data validation performed?

There are internal and external methods of data validation. Internal processes include control over data fields and chart closing process. Data fields are restricted to numeric or alphabetic data. An example, you may not enter a level of activation (alpha/bravo) in the time of activation field (00:00). The process of closing records requires the utilization of the Validator. This triggers a process for ensuring fields have been populated and seeks values that may be beyond a normal range.

An example would be an ED length of stay is typically 120 minutes. If the calculated time comes up as 120,000 minutes, a prompt will appear asking the registrar if the calculation is correct. External processes include monthly registry quality reports also asking for abnormal values to be investigated for accuracy.

A final process is the utilization of inter-rater reliability (IRR). This process validates the accuracy of the data entered into data fields.

<u>First Step</u>: Identify the data points that are most important to your trauma program. These might be factors that affect: the probability of survival (AIS coding, initial vital signs, or GCS; benchmarking (ICU

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days, vent days, or hospital length of stay).

Second Step: During your data validation process, calculate and track IRR individually for these select data points. Re-abstracting 5%-10% of charts. You will simply be calculating IRR for each key data point.

Third Step: Use the results to identify educational needs—any data-point under 95% as an opportunity to improve. Education efforts can use specific cases to illustrate mistakes and clarify data definitions. Focusing on specific data points increases learner retention and increases registrar confidence.

Table 1 identifies key fields that can be considered for this process.

The process might reveal a consistent discrepancy for "ED admit time." Guided by the staff IRR rates on this data point, you might discover that registrars capture this data from different locations within the electronic medical record. Registrar A is recording ED admit time from the ED Encounter Summary, while Registrar B is getting that data from the ED Patient Care Timeline. Sometimes these values are the same, but they are often entirely different. A best practice is to ensure all registrars record data from the same location, which should also be the best location. With this goal in mind, you might update your internal data dictionary with the following hierarchy:

1. ED Patient Care Timeline
   If there is no clear time in this location, then…
2. ED Encounter Summary
   If there is no clear time in this location, then…
3. Pre-Hospital Run Sheet

Make sure to collect enough IRR data before making assessments about registrar performance or changing registry processes. For an accurate view of total abstraction quality, get data validation results on a minimum of 15 to 20 charts. For the purpose of ongoing monitoring, trauma programs should retain all documentation used in data validation to identify trends. Tracking by date, be sure to remain consistent with data ranges (arrival date or discharge date). When a data field maintains a 90%- 95% IRR threshold, consider replacing the data field.

Table 2 provides a listing of common error types and a brief description of each.

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No matter what data validation methodology you use, make sure that the process ties into performance improvement. Make the validation process educational. Registrars need to be a part of the process of validation, review of findings, and further education. Also, use your findings to build a registry handbook. This handbook serves as an internal data dictionary by capturing screenshots, incorporating definitions, and clarifying hierarchy. It also allows for the tracking of questions and concerns related to a specific data field.

Chart 1 provides a summary of data re-abstraction.
Chart 2 provides a summary of the data field requiring correction.

TABLE 1- KEY FIELDS

Patient Identification	System Information	ED Information	Injury Information	Procedure Details	Admitting Information	Care Metrics and Outcomes
Medical record number	Injury time and date	Initial ED vital signs	Cause code	Procedure code (intubation, CPR, chest tube, all OR procedures)	Admitting service	ICU length of stay
Patient financial account number	Transport mode	Initial ED GCS components	Cause E-code	Procedure start date and time	Admitting physician	Ventilator days
Date of birth	Referring hospital code	ED disposition code	Trauma type	ICD-10 code with a narrative description		Comorbid conditions (pre-existing conditions)
	Trauma activation level		Injury details			Complication (hospital event)
	Hospital arrival date and time		AIS value			
	Trauma surgeon arrival date and time		Body region			
			Injury severity score			

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TABLE 2 – ERROR TYPES

Error Type	Description
Out of Range Time Values	Calculating values requires two or more data fields. Validation of time calculations discloses missing values in one or more components required for calculating it and identify unusually large or small gaps in time values and negative and inadmissible time values.
Errors of Commission and Omission	An error of commission is the entry of data that should not be abstracted or the entry of data to a field that should be skipped for recording. An error of omission is data that is not recorded but should have been abstracted or coded.
Errors in Double Entry	Two or more entries may be made for one-time occurrences during the course of care.
Errors in Demographics	A trauma patient may be unconscious or unaccompanied by a responsible informant or personal identification documents when admitted to the hospital: such errors corrupt patient identification and origin.
Errors Because of Incongruent Coding	These errors arise when the same or similar codes in two or more related data fields are not congruent. Discharge disposition and discharge destination.
Errors Because of Inconsistency Coding	These errors arise from incongruence between policy definitions and actual coding practices. The patient may have been discharged to a rehabilitation center, then readmission back to the hospital may create an appearance of prolonged hospital length of stay. Hospital length of stay is often used for outcome assessment of acute trauma care.

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CHART 1 – DATA VALIDATION SUMMARY

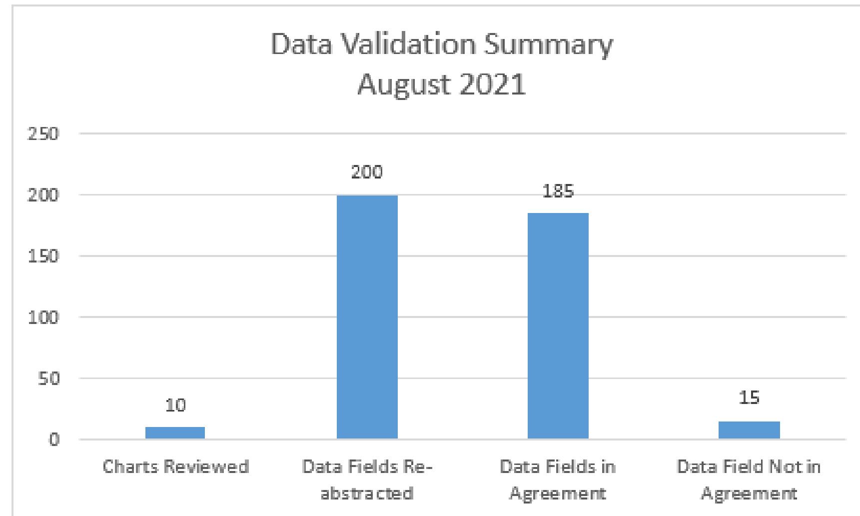
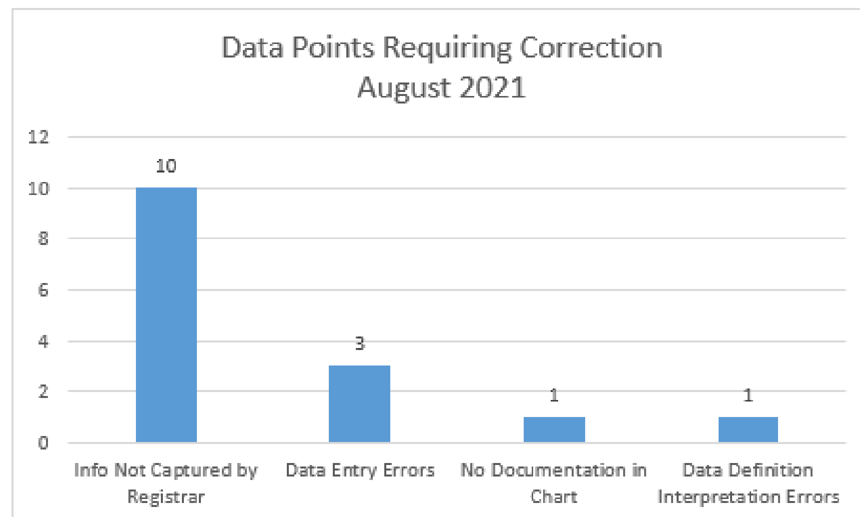


CHART 2 – REQUIRED DATA FIELD CORRECTIONS



For more information on Data Validation, contact Amber Kyle, MSN, RN at akyle@umc.edu

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SAVE the DATE

District Meetings are Coming!

Q-1 2022 Meetings

North District on January 11, 2022
Central District on February 8, 2022
South District on March 8, 2022
All District Meetings begin at 10:00 am

Director's Direction

Trauma does not take a holiday. As the calendar year ends and three significant holidays are upon us, we reflect on thanksgiving, joy, and new beginnings.
Thanksgiving is a look backward. Our national holiday stems from the feast held in the autumn of 1621 by the Pilgrims and the Wampanoag to celebrate the colony's first successful harvest.

After a year of sickness and scarcity, their labors were rewarded with a bountiful harvest. The Pilgrims gave thanks to God.
I am thankful for all that has been accomplished despite the persistent Covid Pandemic and staff shortages in our trauma centers and ambulance services.

The joy of Christmas found in Holy Scripture is in Emmanuel, God with us, a God who cares for his creation enough to

give His all for those who could not help themselves.

Caesar instituted January 1 as the first day of the year, partly to honor the month's namesake: Janus, the Roman god of beginnings, whose two faces allowed him to look back into the past and forward into the future.
Trauma care providers exemplify a heart of thanksgiving, joy, and optimism in the darkest of times for so many. You face the hard jobs with extraordinary benevolence and integrity. The MTCSF is thankful for all you have done in 2021.
I pray you, the healthcare provider, will have a bountiful harvest and find peace and

joy in your sacrifices. May you renew your hope and see your work as a calling.
May you continue to provide care for critically injured with your proficient skills. May you and your family have a blessed Thanksgiving, Merry Christmas, and Happy New Year.

John Gardner

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