

### Mississippi Trauma Care System Foundation News

## What is Your Role in Injury Prevention?

Have you participated in any injury prevention events recently? When surveys resume, perhaps some survey readiness information would be helpful.



The excerpts below are from the current MS Trauma Rules and Regulations:

1.1.1 The Department shall take the necessary steps to develop, adopt and implement the Mississippi Trauma System of Care Plan and all associated trauma system regulations necessary to implement the Mississippi Trauma System. The Department shall cause the implementation of professional and lay trauma education programs. These trauma educational programs shall include clinical trauma education and injury prevention.

#### **Level I Trauma Centers**

3.4.7 Level I trauma centers will be responsible for taking a lead role in the coordination of appropriate agencies, professional groups, and hospitals in their region to develop a strategic plan for public awareness. This plan must take into consideration public awareness of the trauma system, access to the system, public support for the system, as well as specific prevention strategies. Prevention programs must be specific to the needs of the hospital and/or geographic area. A trauma center's prevention program must include and track partnerships with other community organizations. At a minimum, trauma registry data must be utilized to identify injury trends and focus on prevention needs.

#### **Level II Trauma Centers**

4.4.7 Level II Trauma Centers will be responsible for participating with appropriate professional groups, and hospitals in their geographic area to develop a strategic plan for public awareness. This plan must take into consideration public awareness of the trauma system, access to the system, public support for the system, as well as specific prevention strategies. Prevention programs must be specific to the needs of the geographic area. A trauma center's prevention program must include and partnerships with other community organizations. At a minimum, the trauma registry data must be utilized to identify injury trends and focus on prevention needs.

#### **Level III Trauma Centers**

5.4.7 Level III Trauma Centers will be responsible for participating with appropriate agencies, professional groups, and hospitals in their region to develop a strategic plan for public awareness. This plan must take into consideration public awareness of the trauma system, access to the system, public support for the system, as well as specific prevention strategies. A trauma center's prevention program must include and track partnerships with other community organizations. Trauma Registry data must be utilized to identify injury trends and focus prevention needs.

#### **Level IV Trauma Centers**

6.4.3 The Level IV Trauma Center is responsible for working with other trauma centers and the Department to develop education and prevention programs for the public and professional staff.

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# UMMC TAKING PART IN A STUDY THAT EXPLORES THE USE OF COLD PLATELETS IN TRAUMA PATIENTS

JACKSON, Miss. – Dr. Matthew Kutcher remembers treating a patient who was bleeding profusely from gunshot wounds when he arrived at the University of Mississippi Medical Center's Adult Emergency Department.

"Both his large artery and the large vein supplying blood to one of his legs were injured," said Kutcher, an assistant professor of surgery who treats critically ill or injured patients in UMMC's intensive care units. "He went to a small rural hospital, he received a transfusion of red blood cells, and AirCare brought him to us."

In fact, the crew on <u>AirCare</u>, UMMC's medical helicopter transport program, delivered the gravely injured young man straight to the OR. "But even replacing the blood in the operating room as fast as he was losing it, he still had already lost so much that we couldn't keep his pressure up," Kutcher said.

"Platelets are the scaffolding for blood clotting," Kutcher said. "Without platelets, we can't fix the biological bleeding problem."

Despite transfusing several times, the man's normal volume of blood with a combination of red blood cells and plasma and using all of the platelets available in the hospital blood bank, the man ultimately died," he said.

"Standard blood banking procedure is to store platelets at room temperature. Since the risk of infection is higher when blood products are stored at room temperature than when kept in a refrigerator, platelets can only be stored for up to five days after collection before they expire and have to be thrown out," Kutcher said.

But what if platelets were also kept in a blood bank refrigerator, which could extend their shelf life to 14 days? What if cold platelets could be given sooner, as opposed to the current practice of waiting to give room-temperature platelets until later?

"Keeping them cold means we could have almost three times the supply," Kutcher said. "Cold storage means we are more likely to have them on the shelf when we really need them and could have them available at more smaller hospital blood banks."

That's the subject of the Cold Stored Platelet Early Intervention for Hemorrhagic Shock Trial, CriSP-HS for short, to be conducted by six US trauma centers, including UMMC. It is buoyed by previous



studies that show giving traumatically injured patients a combination of red blood cells, plasma, and platelets is the best way to keep their blood pressure up while the trauma team works to stop their bleeding.

"What we're trying to find out is whether using platelets early in injured patients with major bleeding will help stop bleeding faster and whether refrigeration will allow us to keep platelets on the shelf longer in order to keep our supply up," said Kutcher, co-investigator of the UMMC site.

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"Like many places across the country, our state struggles to keep enough blood on the shelf for use in major bleeding emergencies," Kutcher said. Just one traumatically injured patient could require upward of 100 units of blood, he said.

Those performing the study, however, might need to forego a traditional step: asking the patient on the front end if they'd like to participate in it, and giving them documents to sign and time to make a thoughtful decision.

When a patient is bleeding profusely, and their injuries make it impossible for them to give consent, or when their family is absent or can't immediately be found, lifesaving treatment can't wait.

CriSP-HS is an "exception from informed consent" trial. Patients in the Emergency Department who meet the criteria will be enrolled, and they or their family will be asked as soon as possible if their participation in the trial can continue or if they'd like to opt-out.

UMMC is the state's sole Level I Trauma Center and was chosen for the study because of its experience in trauma care, helicopter critical care transport, and blood product transfusion protocols and practices. The Medical Center is one of 29 members of the Department of Defense-funded Linking Investigations in Trauma and Emergency Services research network that focuses on blood, breathing, and brain research to advance the care of injured patients.

Others taking part in the two-year, multimillion-dollar trial funded by the DOD: Baylor College of Medicine in Houston, Texas; MetroHealth in Cleveland, Ohio; University of California-San Francisco; University of Southern California -Los Angeles; and University of Texas Health Sciences Center-Houston.

It will enroll more than 200 people aged 15 and older. Patients who qualify will randomly receive either one unit of cold-stored platelets alongside any other blood components they are given for transfusion or the usual standard of care blood transfusions. More explanation can be found at www.litesnetwork.org/crisp-hs

AirCare is the sole medical helicopter program in Mississippi that carries both red blood cells and plasma, point of care blood level analysis and an ultrasound.



It transfuses the significant majority of blood and blood products flown by medical air transports in Mississippi. AirCare is the only medical helicopter transport program operating in the state, and one of few in the nation, that stocks and administrates prothrombin complex concentrate to reverse anticoagulant drugs in patients with acute major bleeding.

"Supply issues and temperature requirements for storage make it very challenging for AirCare to carry platelets," said Dr. Kendall McKenzie, professor and chair of UMMC's Department of Emergency Medicine. "This study may help change that. Time is of the essence in trauma, and having the capability to provide platelet transfusions to bleeding patients on the way to the hospital is critical to improving survival."

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Plans call for UMMC to activate the trial this fall, Kutcher said. Because it's an emergency treatment study, it requires careful review. In coming weeks, Kutcher and others will begin organizing community meetings and visiting small and large hospitals to get in-person feedback. That's in addition to conducting a web-based survey and forming a community advisory board.

UMMC's hope is that "we'll be able to definitively say whether cold-stored platelets can help improve outcomes in injured patients with major bleeding," said Dr. Larry Martin, chief of the Division of Trauma and Critical Care Surgery.

"If so, this would address a major blood supply logistics issue, and help make critical platelet transfusions more available to patients who need them."

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If your contact information

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### Check out the MTCSF Website

https://mstraumafoundation.org/



#### SYMPOSIUM

#### 2021 TRAUMA SYMPOSIUM VIDEOS

TS01 - 2021 Trauma Symposium Opening and Trauma System Update



The MTCSF has added the Symposium presentations to the website. If you missed or want to review the symposium presentations, MTCSF is pleased to provide links to these presentations. You can access the events at: <a href="https://mstraumafoundation.org/trauma-education/symposium/">https://mstraumafoundation.org/trauma-education/symposium/</a>

Also, there is now a sort feature to the trauma center maps. You can sort by both "district" and by "level". You can see who is in your district and also pinpoint trauma centers by designation level. Check it out:

https://mstraumafoundation.org/map/

We are always looking for news stories. Send news and Announcements to

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## Mississippi Trauma Care System Foundation News

### REGISTER TODAY

#### ATLS®

#### Advanced Trauma Life Support®

The Advanced Trauma Life Support® (ATLS®) program teaches a systematic and concise approach to the care of trauma patients by providing a safe and reliable method for immediate evaluation and treatment. The program focuses on treating the greatest threat to life first. It demonstrates how to assess a patient's condition, resuscitate and stabilize the patient, and determine if his or her needs exceed a facility's capacity.

#### Course Objectives

Upon completion of the ATLS program, the provider will be able to:

- Demonstrate the concepts and principles of the primary and secondary patient assessments.
- Establish management priorities in a trauma situation.
- Initiate primary and secondary management necessary for the emergency management of acute life-threatening conditions in a timely manner.

#### Accreditation

The American College of Surgeons is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.





University of Mississippi Medical Center Trauma Program 2500 N State Street



Advanced Trauma Life Support® ATLS®

1-Day ATLS Refresher Course

August 28th 2021

October 23, 2021

Presented by: University of MS Medical Center Trauma Program

Accredited by: American College of Surgeons Committee on Trauma



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



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## Mississippi Trauma Care System Foundation News



### SAVE A LIFE

Mississippi Trauma Care System Foundation would like to thank the Mississippi State Department of Health for their continued support, allowing MTCSF to provide Stop the Bleed training in Mississippi. MTCSF is so grateful to those who have attended the classes. We would like you to spread the word about this amazing class to other law enforcement officers in our state; do not hesitate to contact John, Dan, or Victoria for more information.

We want to spotlight several Starkville Mississippi police officers who attended a Stop the Bleed class provided by the Foundation and had to put their skills into action.

June 2021, officer Michael Mclinden dispatched to the scene of a gunshot wound. When he arrived, he found a victim that had been shot in the right leg. Officer Mclinden immediately knew that the gunshot wound was causing lifethreatening bleeding, and he needed to act fast. He used his training and the tourniquet provided by MTCSF to control the bleeding. When paramedics arrived, the bleeding was controlled, and they were able to quickly assess and transport the patient to the hospital. EMS reported what a great job this officer did. Congratulations Officer Mclinden. We are so proud of your outstanding work and commitment to the community you protect. Thank you for your dedication and critical thinking that saved a life.

June 2021, a call was placed to 911 reporting shots fired. Officer Stratton Woods, Garrett Miles,

and Dylan Peden headed to the scene. These officers attended a Stop the Bleed training provided by the MTCSF several months earlier. When they arrived, they found a victim with multiple injuries to their left leg and back. The officers immediately recognized life-threatening bleeding from the injury on the left leg. The officers acted quickly and applied a tourniquet to the left leg. The bleeding was controlled, and when paramedics arrived, they were able to assess the patient and transport them to the hospital. The patient sustained a broken leg from the gunshot, requiring surgery. Congratulations officers, for using your training and providing lifesaving interventions in an emergency situation.

MTCSF is truly honored to educate the first responders and law enforcement in the state of Mississippi. Once again, we would like to thank those that have attended a Stop the Bleed class. Would you please reach out to the foundation for more information regarding Stop the Bleed?



Starkville Mississippi police officers (L-R) Michael Mclinden, Garrett Miles, Straton Woods, Dylan Peden

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North District on July 13,2021, Regional One Central District on August 10, 2021, UMMC South District on Sept. 14, 2021, Memorial Gulfport

All District Meetings begin at 10:00 am Meetings are in-person with a ZOOM option. Check your email invitation for more information.

There is growing demand to have these meetings in person. If you are interested in being the host hospital for a district meeting, contact the editor. MTCSF will begin by offering sessions as in-person meetings with a zoom option.



# FIREFIGHTERS BURN CENTER



## **Firefighters Burn Center Getting Patients Back to Their Lives**

Burn injuries can be devastating for individuals. The Firefighters Burn Center at Regional One Health in Memphis has the expertise and technology to provide the highest level of medical care. Their focus is on helping the patient heal and getting back to an independent, fulfilling life as quickly as possible.

As the only full-service burn center for a 150-mile radius, the Firefighters Burn Center provides lifesaving care for patients ages 14 and up who require emergency and continuing burn treatment. The center is the only center in the Mid-South verified by the American Burn Association and the American College of Plastic Surgeons, a testament to their high level of care and patient outcomes.

Dr. Ram Velamuri leads the multidisciplinary medical team. It includes board-certified plastic surgeons who are uniquely qualified to perform procedures that both save lives and enhance the quality of life. They are joined by advanced practitioners, nurses, therapists, and others who stay at a patient's side through their entire journey, allowing them to build relationships that enhance the level of care they deliver.

The comprehensive services at the Firefighters Burn Center allow for treatment from the time the patient suffers a burn injury through their intensive care, rehabilitation, wound treatment, and reconstructive surgery. The center features a dedicated emergency room, two operating rooms, 14 intensive care-capable rooms, rehabilitation facilities, wound care, and hyperbaric oxygen therapy. The full continuum of care includes inpatient and outpatient services tailored to the individual patient's needs and provides optimal outcomes.

For more information about the Firefighters Burn Center, call 1-800-351-3434 or visit www.regionalonehealth.org.

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### Focus on EMS

In May, the Mississippi State Department of Health Bureau of Acute Care Systems (MSDH BACS) transferred the Trauma Care Trust Fund (TCTF) distributions for the period January 1, 2020 – June 30, 2020, to the Mississippi Trauma Care System. This distribution includes funds for each county's 911 contracted ambulance services. The process is going very well.

The MTCSF is standardizing the application process. Ambulance services complete the application process by providing cost data for essential items and staff required to provide 911 emergency services to Mississippi trauma patients.

The first step in standardization is to ensure that cost information comes from the calculated distribution's coinciding period. Variation was found in this process. Some services were documenting how they spent their last distribution payment. Others were seeking funding to purchase future equipment. Still, others were reporting escrow funds. The distributions are determined by volume and severity during a stated period of time. To document expenditures for any other time would not be appropriate. Volumes and severity vary. County contracts vary. Monetary calculations vary. The distribution period will always be clearly stated on the application.

The second step is to include the cost of trauma care and not the cost of running a business. For example, supplies, equipment, and education cost should be for trauma care. Staffing should be calculated based on trauma care. reimbursements are larger than ever, but they only cover a fraction of trauma cost. You should sufficient have problem claiming expenditures your calculated justify distribution.



### **Director's Direction**

The 2020-2021 fiscal year ended

on June 30. First, I want to extend a heartfelt thanks to David Hall and everyone at the Mississippi State Department of Health, Bureau of Acute Care Systems for their vision in a trauma foundation. Secondly, I must extend thanks to everyone in the trauma system of care. You have supported the MTCSF and been respectful and patient. Thirdly, I want to thank my administrative support staff at the Mississippi Hospital Association, who helped make the trauma symposium a success.

In the new fiscal year, the MTCSF will continue providing the services you have received. In addition, we will be providing more trauma center designation support and partnering with you for education and outreach programs for injury prevention. The website will continually be adding information. We will offer district calls for all in the trauma districts, looking for ways to include the trauma medical directors and trauma center administrators. We will add designation levelspecific calls just for trauma program managers and registrars within the same designation level to share knowledge, best-practices and improve system performance. The symposium will be a live event-bigger and better. We will increase our educational offers and provide reimbursement to trauma centers and ambulance services that may not have sought reimbursement through the MTCSF this past year. MTCSF will support designation survey readiness. Dan Burgess, Victoria Hickerson and I will be here for you and for our trauma patients. We look forward to an outstanding year.

Director, MTCSF

John Gardner

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