



# SPRING 2014 THE SPECTRUM

## St E's Trauma Journal

St Elizabeth Medical Center's quarterly journal for trauma continuing education and awareness. Articles will cover the spectrum of trauma in Central New York. This is designed to bring awareness to current items, information and trends seen within the trauma center and the area that we support.

"Getting to a designated trauma center matters for patients who are seriously hurt — those with severe injuries are 25 percent less likely to die at a trauma center than in a typical emergency room." - Dr. Arthur Kellermann



**ICD-10**

**Burn Center Criteria**

**Trauma Across the  
Spectrum**

**TNCC 7<sup>th</sup> Edition**

**Policy Changes:  
Tiered response**

**2013 Trauma  
Statistics**

**Articles of Interest**

**ST ELIZABETH  
TRAUMA CENTER**

2209 Genesee St.  
Utica, NY 13501

[www.stemc.org](http://www.stemc.org)

315-798-8127

# BURN CENTER CRITERIA

Clark Burn Center in Syracuse is our regional burn center. It has four beds and treats both adult and pediatric patients. Burn injuries that could be referred to a burn center include:

1. Partial thickness burns greater than 10% total body surface area (TSBA).
2. Burns that involve the face, hands, feet, genitalia, perineum, or major joints.
3. Third degree burns in any age group.
4. Electrical burns, including lightning injury.
5. Chemical burns.
6. Inhalation injury.
7. Burn injury in patients with preexisting medical disorders that could complicate management, prolong recovery, or affect mortality.
8. Any patient with burns and concomitant trauma (such as fractures) in which the burn injury poses the greatest risk of morbidity or mortality. In such cases, if the trauma poses the greater immediate risk, the patient may be initially stabilized in a trauma center before being transferred to a burn unit. Physician judgement will be necessary in such situations and should be in concert with the regional medical control plan and triage protocols.
9. Burned children in hospitals without qualified personnel or equipment for the care of children.
10. Burn injury in patients who will require special social, emotional, or rehabilitative intervention.

Do you want to learn more about burns?

Attend an Advanced Burn Life Support Course or visit the American Burn Association at [www.ameriburn.org](http://www.ameriburn.org)

## BURN INJURY REPORT

It is a New York State Law to report burn injuries. Call 1-800-345-5811 immediately and tell the operator that you are reporting a burn injury.

Assessment information will be required to submit. Then within 72 hours, complete a Burn Injury Report (DOS-897) and submit to the Office of Fire Prevention and Control. The Burn Injury Report can be found in the ED in the wall files near all the other forms.

# TRAUMA

## Across the Spectrum

Friday, June 6, 2014

7:30 a.m. - 4:00 p.m.

**Holiday Inn**, 1777 Burrstone Rd, New Hartford, New York



### Speakers and Topics

**Deborah L. Funk, MD, FACEP**

*"Prehospital Tranexamic Acid  
for Acute Traumatic  
Hemorrhage"*

**Florin G. Olteanu, MD, CMD**

*"Geriatric Trauma – How is it  
Different"*

**Bradley S. Vrooman, NYS  
EMT-P**

*"Operational Considerations in  
Active Shooter and High Threat  
Incidents"*

**Kyle Williams, RN, CFRN,  
NREMT-P**

*"Advanced Airway  
Management"*

**Steve Adkisson, RN**

*"Impact: Trauma Systems  
Approach to Care"*

We have a great program lined up this year. It is geared for everyone that is involved in trauma care both in hospital and out and will increase the skill sets of all who attend. This year we have a new venue and additional options for submitting registration. Check out the trauma day link on the homepage, [www.stemc.org](http://www.stemc.org). We will have vendors and both ground and air ambulances on display. This is a great opportunity to network with other professionals or friends that share the same passion about patient care.

### ICD-10

On January 16, 2009, the U.S. Department of Health and Human Services (HHS) released the final rule mandating that everyone covered by the Health Insurance Portability and Accountability Act (HIPAA) implement ICD-10 for medical coding. "On April 1, 2014, the Protecting Access to Medicare Act of 2014 (PAMA) (Pub. L. No. 113-93) was enacted, which said that the Secretary may not adopt ICD-10 prior to October 1, 2015. Accordingly, the U.S. Department of Health and Human Services expects to release an interim final rule in the near future that will include a new compliance date that would require the use of ICD-10 beginning October 1, 2015. The rule will also require HIPAA covered entities to continue to use ICD-9-CM through September 30, 2015."

At SEMC we are moving toward the conversion to ICD-10. Education has started and will continue up to the change. Computer software is being changed to support the new requirements. ICD-10 is significantly more throughout than the previous version. For more information like implementation planning and provider, payer, or vendor resources please visit the following link:

<http://cms.gov/Medicare/Coding/ICD10/index.html>



TNCC, widely recognized as the premier course for hospitals and trauma centers worldwide, empowers nurses with the knowledge, critical thinking skills, and hands-on training to provide expert care for trauma patients.

- Rapid identification of life-threatening injuries
- Comprehensive patient assessment
- Enhanced intervention for better patient outcomes

ENA developed the Trauma Nursing Core Course to establish a standardized body of trauma nursing knowledge and to improve the care of all trauma patients. This seventh edition course combines interactive learning with scenario-based assessments to give nurses a comprehensive learning experience.

**The 2 day intensive course includes:**

**A Systematic Approach of Initial Assessment**

Nurses learn A-I mnemonic and the Trauma Nursing Assessment.

**Evidence-based Content Written by Trauma Experts**

24 chapter comprehensive manual with dedicated chapters for special populations.

**Hands-on Skill Stations**

Nurses practice the systematic approach in real life situations with skilled instructors.

**5 Online Modules**

Complete case studies taking nurses through an entire sequence of care.

**Verification and Contact Hours**

Upon successful completion of the course ENA will issue a 4 year provider verification card. Contact hours are awarded for course completion.

**This new course will be offered soon.**

# Policy Changes: Tiered response

The roll out of new trauma policies and trauma documentation that occurred on March 1, 2014, has seen some successes in effectively managing our trauma patients. We are currently undergoing a study to validate these changes and ensure that we are providing the best care for our trauma patients.

This change was to support our future ACS verification as a Level II trauma center. Currently, there are only two hospitals in New York State that have completed their verification through ACS; SUNY Upstate in Syracuse and Strong Memorial in Rochester. Our expectation for ACS verification is June 2015 which means we have one more year to fix the deficiencies that they identified on their consultative visit. Our affiliation with Faxon-St Luke's will benefit our ability to be successful in this endeavor. We continue tracking our progress towards our verification visit.

Trauma is about teamwork. Successful management of trauma patients is a collaborative effort that starts with EMS at the point of care, to the trauma center for stabilization, and definitive care, to rehabilitation and then back home.

## St Elizabeth Trauma Center Statistics – 2013

Trauma Admissions – 798

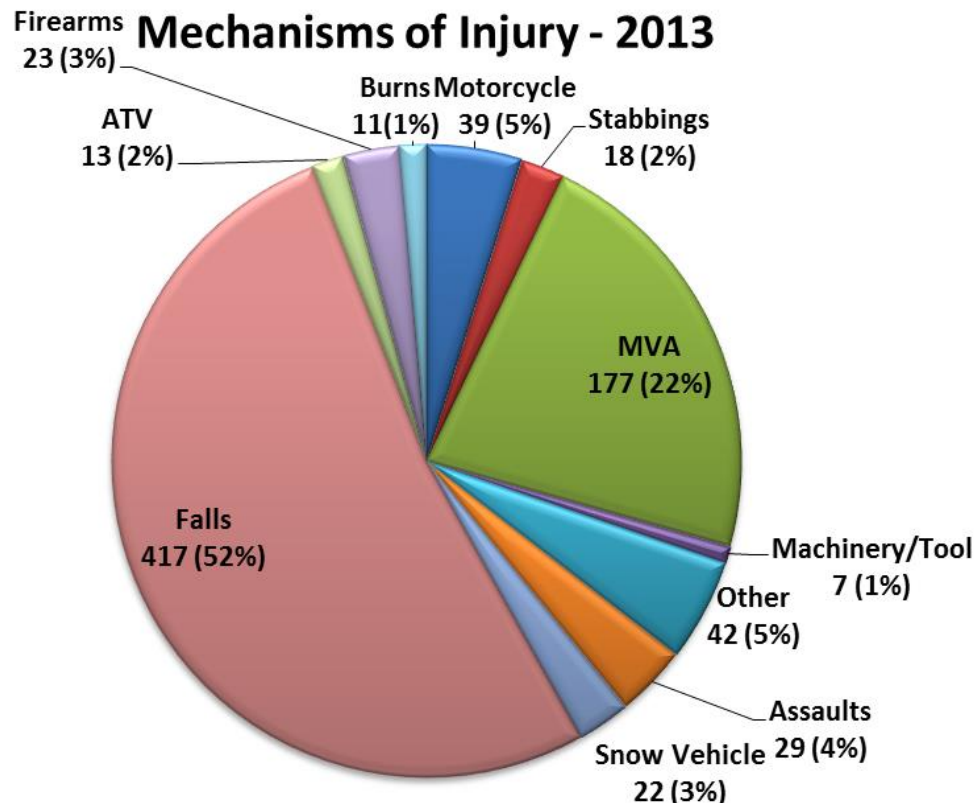
Trauma Transfer In – 20

Trauma Codes – 152

Trauma Transfer Out - 124

Trauma Evaluations- 236

Trauma Cases to OR - 306



# Articles of Interest

Wijdicks, E. F. M., Bamlet, W. R., Maramattom, B. V., Manno, E. M., & McClelland, R. L. (2005). Validation of a new coma scale: The four score. *Annals of Neurology*, 58(4), 585-593.

## Abstract

The Glasgow Coma Scale (GCS) has been widely adopted. Failure to assess the verbal score in intubated patients and the inability to test brainstem reflexes are shortcomings. We devised a new coma score, the FOUR (Full Outline of UnResponsiveness) score. It consists of four components (eye, motor, brainstem, and respiration), and each component has a maximal score of 4. We prospectively studied the FOUR score in 120 intensive care unit patients and compared it with the GCS score using neuroscience nurses, neurology residents, and neurointensivists. We found that the interrater reliability was excellent with the FOUR score ( $\kappa(w) = 0.82$ ) and good to excellent for physician rater pairs. The agreement among raters was similar with the GCS ( $\kappa(w) = 0.82$ ). Patients with the lowest GCS score could be further distinguished using the FOUR score. We conclude that the agreement among raters was good to excellent. The FOUR score provides greater neurological detail than the GCS, recognizes a locked-in syndrome, and is superior to the GCS due to the availability of brainstem reflexes, breathing patterns, and the ability to recognize different stages of herniation. The probability of in-hospital mortality was higher for the lowest total FOUR score when compared with the lowest total GCS score.

Haut, E. R., et al. (2014). The effectiveness of prophylactic inferior vena cava filters in trauma patients: A systematic review and meta-analysis. *JAMA Surg*, 149(2), 194-202. doi 10.1001.

## Abstract

**IMPORTANCE:** Trauma is known to be one of the strongest risk factors for pulmonary embolism (PE). Current guidelines recommend low-molecular-weight heparin therapy for prevention of PE, but trauma places some patients at risk of excess bleeding. Experts are divided on the role of prophylactic inferior vena cava (IVC) filters to prevent PE.

**OBJECTIVE:** To perform a systematic review and meta-analysis examining the comparative effectiveness of prophylactic IVC filters in trauma patients, particularly in preventing PE, fatal PE, and mortality.

**DATA SOURCES:** We searched the following databases for primary studies: MEDLINE, EMBASE, Scopus, CINAHL, International Pharmaceutical Abstracts, clinicaltrials.gov, and the Cochrane Library (all through July 31, 2012). We developed a search strategy using medical subject headings terms and text words of key articles that we identified a priori. We reviewed the references of all included articles, relevant review articles, and related systematic reviews to identify articles the database searches might have missed.

**STUDY SELECTION:** We reviewed titles followed by abstracts to identify randomized clinical trials or observational studies with comparison groups reporting on the effectiveness and/or safety of IVC filters for prevention of venous thromboembolism in trauma patients.

**DATA EXTRACTION AND SYNTHESIS:** Two investigators independently reviewed abstracts and abstracted data. For studies amenable to pooling with meta-analysis, we pooled using the random-effects model to analyze the relative risks. We graded the quantity, quality, and consistency of the evidence by adapting an evidence-grading scheme recommended by the Agency for Healthcare Research and Quality.

**RESULTS:** Eight controlled studies compared the effectiveness of no IVC filter vs IVC filter on PE, fatal PE, deep vein thrombosis, and/or mortality in trauma patients. Evidence showed a consistent reduction of PE (relative risk, 0.20 [95% CI, 0.06-0.70];  $I(2)=0\%$ ) and fatal PE (0.09 [0.01-0.81];  $I(2)=0\%$ ) with IVC filter placement, without any statistical heterogeneity. We found no significant difference in the incidence of deep vein thrombosis (relative risk, 1.76 [95% CI, 0.50-6.19];  $P=.38$ ;  $I(2)=56.8\%$ ) or mortality (0.70 [0.40-1.23];  $I(2)=6.7\%$ ). The number needed to treat to prevent 1 additional PE with IVC filters is estimated to range from 109 (95% CI, 93-190) to 962 (819-2565), depending on the baseline PE risk.

**CONCLUSIONS AND RELEVANCE:** The strength of evidence is low but supports the association of IVC filter placement with a lower incidence of PE and fatal PE in trauma patients. Which patients experience benefit enough to outweigh the harms associated with IVC filter placement remains unclear. Additional well-designed observational or prospective cohort studies may be informative.