**Southern Minnesota Regional Trauma Advisory Committee (SMRTAC)**

**Practice Management Guideline**

# *Initial Management of Major Trauma Patient Level IV Trauma Center*

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| **Adult**<br>**Practice Management Guideline** | **Effective: 11/2011** |
| **Contact:** SMRTAC Coordinator | **Last Reviewed: 12/2016, 2/2018** |

## Purpose

To state the appropriate assessment and care of the major trauma patient in a Minnesota designated Level IV Trauma Center. This guideline assumes no consistent surgeon availability to respond to the Emergency Department for patients meeting trauma activation criteria.

## Definitions

1. Adult trauma patient – any patient age 15 years or older suffering an injury. For the purposes of this guideline the definition is any patient who may be at risk for a life or limb threatening injury.
2. Adult Geriatric trauma patient- Injured patient over the age of 65
3. Trauma activation – a defined team response to a patient at risk for major trauma. Every trauma center has defined trauma activation criteria as standardized by the Southern Minnesota Regional Trauma Advisory Committee. Trauma Activation Criteria- Adult Trauma Activation Criteria- Pediatric. SMRTAC uses a Red/Yellow classification system to differentiate patients with deranged physiology (example signs of shock) or who have suffered a significant mechanism of injury (examples penetrating, electrocution) and those who are at risk of serious injury based on mechanism. Patients falling into the first category are classified as trauma red patients. Those in the second category are classified as yellow trauma patients.
4. Initial management – the process of assessment and recognition all life threatening injuries and the provision of appropriate interventions in a timely and organized manner.
5. Primary survey – The first steps in the initial management of the trauma patient. Includes airway maintenance with cervical spine protection, breathing and ventilation, circulation with hemorrhage control, assessment of the neurologic status (disability), and exposing the patient to identify any areas of hemorrhage or severe injury while also assuring hypothermia prevention.
6. Secondary survey – The second portion of trauma initial management where a complete head-to-toe assessment is completed. This includes turning the patient to assess the posterior injuries.

**Policy Statements**

1. All trauma patients should be evaluated using the principles of trauma assessment as stated in the Advanced Trauma Life Support (ATLS)© course, Rural Trauma Team Development Course (RTTDC) and Comprehensive Advanced Life Support (CALS) © courses. This includes a thorough assessment and appropriate management including all of the steps in a primary and secondary survey.
    a. Life threatening injuries are more apt to be recognized by an organized systematic evaluation during a primary and secondary survey.
2. All trauma patients needing definitive management should be transferred to a tertiary care facility as expeditiously as possible, especially those patients demonstrating physiologic instability. Disposition planning should take place immediately upon recognition the patient's medical needs exceed the resources of the caring facility.
    a. RTTDC states the goal for trauma patient management is to identify the severely injured patient and make the decision to transfer within 15 minutes of patient arrival.
    b. Once ABC's are stabilized to the best ability of the referring hospital transfer should not be delayed for any reason. This includes delays that may be caused by obtaining additional imaging outside the trauma bay.

3. EMTALA (Emergency Medical Treatment and Active Labor Act) requirements will be followed by both the transferring and receiving hospitals.
4. Hospitals should follow their Trauma Team Activation Policy as standardized by the Southern Minnesota Regional Trauma Advisory Committee and the Minnesota Statewide Trauma System.
5. Special consideration should be given to factors that may complicate the care of the geriatric patient such as normal pathophysiologic changes associated with age, comorbidities, medications, and lower physiologic reserve.
6. Consider the mechanism of injury related to the presenting injuries. Consider the possibility of elder abuse if the injuries do not coincide with the mechanism of injury.

**Procedure Statements**

1. Activate and organize the trauma team (according to hospital policy) upon notification of patient meeting criteria or recognition of criteria being met.

2. Develop an initial plan of care based on the information that is available.
    a. Consider resources the patient may need and begin preparations for transfer prior to patient arrival if appropriate. Hospitals should follow their own policies for transfer criteria (as required by the Minnesota Statewide Trauma System).
3. Provide appropriate initial management by completing a primary and secondary assessment.
    a. Primary Survey
        i. Airway – Assure patient had a patent and adequate airway. Provide airway support if needed.
            1. Assure the c-spine is stabilized during this assessment.
            2. Assess for ability to handle and clear secretions and the presence of dentures in the geriatric patient.
        ii. Breathing – Assure patient has adequate oxygenation and ventilation. Provide supplemental oxygen via a route and rate appropriate for the patient. Perform needle decompression or insert chest tubes if warranted.

iii. Circulation – Assure patient has no obvious areas of bleeding and IV access is obtained using large bore catheters (18g or larger in adults). Begin fluid resuscitation with crystalloid and/or blood if needed. Consider obtaining ABG, or lactate level for assessment of shock state. (Do not delay transfer to obtain labs.)
    1. In the geriatric patient, consider smaller fluid boluses and reassess for signs of fluid overload. Consider early administration of packed red blood cells. Consider early anticoagulant reversal.
iv. Disability – Assess and record the patients Glasgow Coma Score and pupil response
    1. Determine baseline mental status.
v. Expose/Environment – Completely expose the patient (includes removing all clothing) and assess for observable injuries or areas of bleeding. Provide warming measures.
    1. Body temperature of the geriatric patient may be difficult to regulate. Ensure warming techniques.

b. Secondary Survey
    i. Garner as much history as possible from EMS, patient and/or family, patient medical records, etc.
        In geriatric patients, include comorbidities and medications.
    ii. Conduct a thorough head to toe assessment. Ensure evaluation of patient's posterior surface.

4. Determine need for transfer
    a. Initiate early call for transport
    b. Contact tertiary care facility for transfer as soon as possible.
5. Conduct further imaging outside of trauma bay if determine patient is not going to be transferred immediately.
    a. Assure availability of films for the receiving facility if the patient is eventually transferred.
6. Consider resources available for family support
7. Review advanced directives and incorporate patient wishes in plan of care.

**Resources/Links**

Advanced Trauma Life Support for Doctors (ATLS) © 9th Edition

Trauma Nursing Core Course (TNCC) © 7th Edition

Comprehensive Advanced Life Support Course (CALS) ©

Minnesota Statewide Trauma System Hospital Resources, Level IV Designation Criteria

Southern Minnesota Regional Trauma Advisory Committee (SMRTAC) Trauma Team Activation Criteria: Adult and Pediatric

ACS TQIP Geriatric Trauma Management Guidelines 2017

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| **Prepared by:**<br>**SMRTAC Leadership**<br>**Trauma Program Managers Subcommittee** |
| **Approvals:**<br>**SMRTAC Voting Members 12/08/2016, 02/2018** |

Disclaimer: This is a general guideline and is not intended as a substitute for clinical judgment or as a protocol for the management of all trauma patients.