

Maine EMS Trauma Advisory Committee

Consensus Statement and Clinical Advice for Trauma Management

GENERAL GUIDE FOR THE INITIAL TRIAGE, MANAGEMENT AND REFERRAL OF TRAUMA PATIENTS

PART I: Key Concepts

A. Five percent of trauma patients, victims of “major trauma”, need the resources of a Regional Trauma Center to maximize their chance for survival and recovery. Other trauma patients may benefit from transfer from one Trauma System Hospital to another for specific specialized surgical, recovery or other services. The remaining body of patients is best served by care in the most local Trauma System Hospital.

B. Identifying and transferring the most severely injured trauma patients rapidly to a Regional Trauma Center is one of the cornerstones of the Maine Trauma Care System.

C. Major trauma patients are sent directly to Regional Trauma Centers through a process of **field triage** guided by local on-line medical control (OLMC) or by expeditious **transfer** from Trauma System Hospitals after rapid assessment and stabilization.

PART II: Annotations and Rationale

A.1. The following are Maine EMS Trauma System Hospitals (TSHs).

It is **recommended** that every trauma system hospital **be current within 5 years** of having had a Maine EMS Trauma Technical Assistance Program visit and updating the resulting “Guide to Trauma Care in the Emergency Department” reference document for their facility (a product of the Technical Assistance visit). The dates listed below are for the most recent designation as Trauma System Hospital following a Technical Assistance visit. A “1995” designation is the original designation and no Technical Assistance visit has been requested by the facility.

Aroostook Medical Center - 2006
Blue Hill Memorial Hospital - 2004
Bridgton Hospital -1995
C.A. Dean Memorial Hospital - 2004
Calais Regional Hospital - 2004
Cary Medical Center - 1995
Down East Community Hospital - 1995
Franklin Memorial Hospital - 2003
Goodall Hospital - 1995
Houlton Regional Hospital - 2004
Inland Hospital - 1995
Maine Coast Memorial Hospital - 2009
Maine General Hospital – Augusta Campus - 2003

Maine General Hospital – Waterville Campus - 2010
Mayo Regional Hospital - 1995
Mercy Hospital - 1995
Mid-Coast Hospital - 2003
Miles Memorial Hospital - 2006
Millinocket Regional Hospital - 1995
Mount Desert Island Hospital - 2004
Northern Maine Medical Center - 2005
Parkview Hospital - 2006
Penobscot Bay Medical Center - 2002
Penobscot Valley Hospital - 2008
Redington-Fairview General Hospital - 2006
Rumford Community Hospital - 1995
Saint Andrew's Hospital - 2004
Saint Joseph's Hospital - 1995
St. Mary's General Hospital - 1995
Sebasticook Valley Hospital - 2005
Southern Maine Medical Center - 1995
Stephen's Memorial Hospital - 2009
Waldo County General Hospital - 2009
York Hospital - 1995

A.2. The following is a list of the Maine Regional Trauma Centers (RTCs).

The phone numbers used to request trauma consult and transfer, or to get patient feedback or administrative information are as follows.

- In contacting any of the three regional trauma centers, you should contact the “one call” numbers listed below to request the trauma service or other service as specified. (*Staff at these “one call” numbers have contact information and other transport resources*):
 - **Central Maine Medical Center:**
 - **For consult or transfer** call “CMMC Connect” at 1-877-366-7700 to be connected with a trauma surgeon.
 - For feedback or administrative issues call Trauma Director: 795-2869 (ask for Dr. Carlo Gammaitoni - gammaitc@cmhc.org) or Trauma Coordinator: 795-2869
 - **Eastern Maine Medical Center:**
 - **For consult or transfer** call “Transfer Center of Eastern Maine” at 973-9000 for routing as follows:
 - Isolated, stable, single-system orthopedic questions or transfers will be routed to the on-call orthopedist, possibly via the EM service.
 - For all other injured patients, including those who are unstable; those with major or multiple injuries; those with significant co-morbidities; or surgical subspecialty needs (e.g., neurosurgery, OMFS, pediatrics, etc.), you should be referred to the trauma attending.
 - Key phrases: “I have an injured patient and need to speak with a trauma surgeon.” “We [are/are not] users of the ED telemedicine System.”

- For feedback or administrative issues:
 - Trauma Coordinator: 973-7260 (Pret Bjorn – pbjorn@emh.org) or 973-7920 (Shelley Sides – ssides@emh.org)
 - Trauma Director: 973-7260 (ask for Dr. Joan Pellegrini – jpellegrini@emh.org)
 - Transfer Center Director: 973-8005 (Dr. Norm Dinerman – ndinerman@emh.org)
- **Maine Medical Center:**
 - **For consult or transfer** call “MMC One Call” at 866-662-6632.
 - For feedback or administrative issues call Trauma Medical Director: 774-2381 (ask for Dr. Rob Winchell - winchr@mmc.org) or Trauma Program Manager: 774-2381 extension 316 (ask for Kathy Harris - harrik@mmc.org)

B. Patient Candidates for Transfer from Trauma System Hospital to a Regional Trauma Center:

Each hospital must evaluate their capacities and know in advance which type of patients they will transfer, what diagnostic and treatment procedures will be performed or withheld when a transfer is indicated, and how they will effect these transfers.

Remember, when consulting with a Maine EMS Regional Trauma Center (RTC) “**One Call Starts It All**”. This means that whether your patient will be transferred to that facility or another specialty center (e.g. major burn facility, reimplantation center), you can expect that the RTC will assist with arrangements for transfer (and further transfer to another center as needed), as well as providing advice on diagnostics and treatment. **Document the time that you decide to transfer the patient** (the ACS Rural Trauma Team Development course suggests that this should be done within **15 minutes** of patient arrival).

1. Trauma System Hospitals That Have Created a “Guide to Trauma Care in the Emergency Department” Through the Maine EMS Technical Assistance Program:

The Maine EMS Trauma Technical Assistance Program, and the “Guide to Trauma Care in the Emergency Department” that results when a Trauma System Hospital uses the program (see A.1, above) help hospitals to accomplish this. Refer to the Guide for your hospital. Consult with a trauma surgeon at one of the Regional Trauma Centers as needed for any guidance on appropriate destination, procedures to perform/withhold prior to transfer, and method of transfer (and as otherwise may be indicated by your “Guide...” reference).

2. Trauma System Hospitals That Have Not Created a “Guide..”:

Patients with the following conditions should be considered for transfer to a Regional Trauma Center. Patients that require transfer should be stabilized as quickly as possible and diagnostic procedures minimized to reduce delay to definitive care. Consult with a trauma surgeon at one of the Regional Trauma Centers as needed for any guidance on appropriate destination, procedures to perform/withhold prior to transfer, and method of transfer.

Central Nervous System

- Potential Brain Injury
 - Penetrating injury of head or depressed skull fracture
 - Open injury with or without cerebrospinal fluid leak
 - Altered/diminishing level of consciousness related to trauma
 - Lateralizing signs
- Spinal cord injury or major vertebral injury

Chest

- Wide or suspicious mediastinum
- Major chest wall injury
- Cardiac injury
- Patients who require prolonged ventilation

Pelvis

- Unstable pelvic ring disruption
- Pelvic ring disruption with shock or evidence of continuing hemorrhage
- Open pelvic fracture

Major Extremity Fracture

- Fracture/dislocation with loss of distal pulses
- Open proximal long bone fracture
- Extremity Ischemia

Multiple System Injury

- Head injury combined with face, chest, abdominal or pelvic injury
- Burns associated with injuries
- Multiple long bone fractures
- Significant injury to more than two body regions

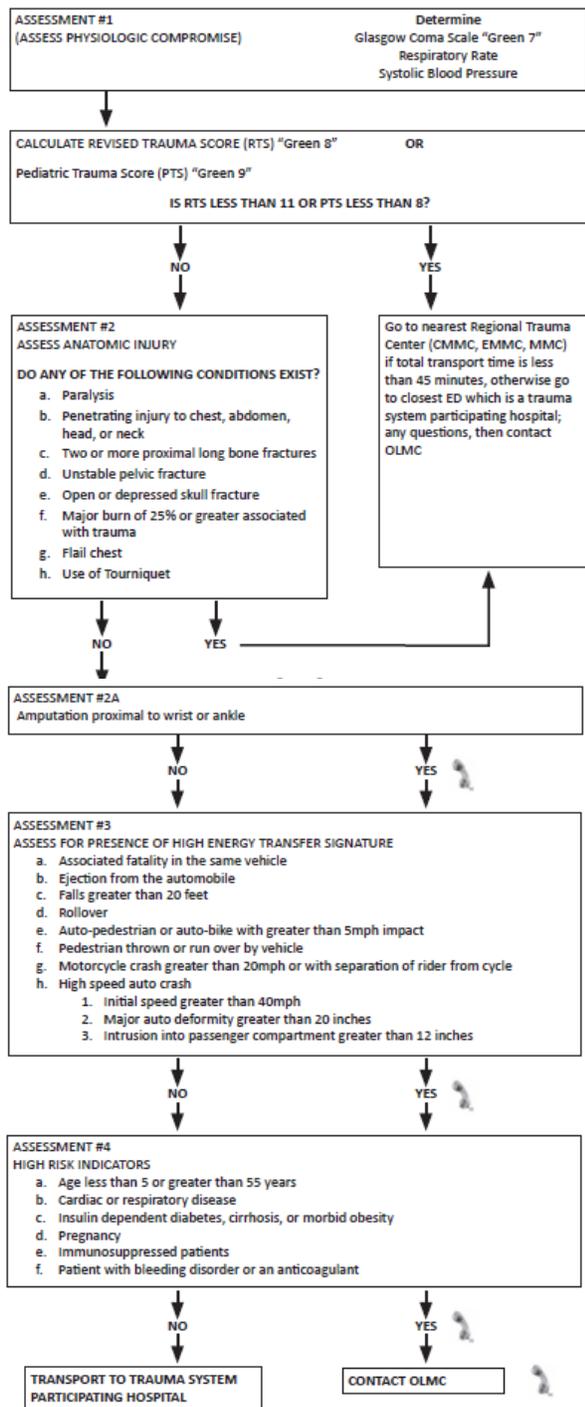
Coexisting Conditions

- Elderly or children
- Known cardiac, pulmonary, renal or metabolic disorders
- Pregnancy
- Morbid obesity
- Immunosuppression

C. Field Triage Protocols for Guidance of On-Line Medical Control (OLMC)

The following are the protocols for Maine EMS personnel in the field and should be used by those advising field personnel in managing trauma cases. If airmedical or specialized medical ground transport resources are anticipated to be needed, either from the scene or to come to the Trauma System Hospital, early activation of these services is encouraged.

**TRAUMA TRIAGE PROTOCOL
PATIENT WITH BLUNT OR PENETRATING TRAUMA**



1. OLMC considers patient transport to Regional Trauma Center (RTC) using the following guidelines:
 - a. If patient would best be served by RTC and transport time less than 45 minutes, then OLMC may direct you to the RTC
 - b. If patient requires RTC but transport time greater than 45 minutes or patient requires life saving interventions, patient to go to the closest ED
2. If upon arrival in ED;
 - a. Facility is not a RTC and;
 - b. Patient continues to satisfy criteria of assessments One and Two, and;
 - c. Patient can be stabilized for further transport, then receiving ED clinician should provide only life-saving procedures (avoiding unnecessary diagnostics) prior to transport to RTC unless he/she judges clinical situation to not warrant such transfer

If prehospital providers are unable to definitively manage the airway, maintain breathing or support circulation, begin transport to most accessible hospital and simultaneously request ALS intercept or tiered response.

PART III. References

1. Maine EMS Protocols – 2008

http://www.maine.gov/dps/ems/training_materials.html#protocol

2. Guide to the Maine EMS Trauma Advisory Committee Technical Assistance Program for Trauma System Hospitals

<http://www.maine.gov/dps/ems/documents/TAC2010%20Guide%20to%20TAC%20TA%20Program%20for%20TSHs.pdf>

3. Maine EMS Trauma Technical Assistance, Self-Assessment Materials – 2010

http://www.maine.gov/dps/ems/documents/TACTA%20Self-Assessment%20_2010_.pdf

<http://www.maine.gov/dps/ems/documents/TAC2010%20Sample%20%20Guide%20to%20ED%20Trauma.pdf>

4. CDC/ACS Trauma Field Triage Decision Scheme – 2009

<http://www.cdc.gov/fieldtriage/>

5. ACS Rural Trauma Team Development Course -2010

<http://www.facs.org/trauma/rttdc/index.html> (for course opportunities in Maine, contact Maine EMS Trauma System Manager, Kevin McGinnis, at 512-0975 or k.mcginis@roadrunner.com).

All above sites accessed in April, 2010.

Approved by Maine EMS TAC in April, 2010

