

Trauma Team Activation

Purpose: A team must be rapidly assembled to provide for the initial evaluation and resuscitation of major trauma patients in an organized and efficient manner.

Policy: The team is a multi-disciplinary panel of professionals assembled in an organized fashion to perform the tasks necessary to efficiently resuscitate seriously injured patients.

A Trauma Activation may be activated by Emergency Medical Systems (EMS).

A Trauma Activation may be activated by the trauma physician on call, Emergency Room (ER) trauma nurse, emergency department physician, or other emergency department staff. Upon determination that a patient meets the Trauma Activation criteria, any of the aforementioned will contact the ER trauma nurse to activate the trauma system.

The activation criteria are as follows:

- 1) Activate trauma team upon realization that any of the following patient conditions exists, either upon arrival of the patient or notification by EMS.

2) Level I (Code Red Trauma)

Adult or pediatric trauma patient and presenting with:

- Altered level of consciousness secondary to trauma, GCS <10 or less than V on AVPU scale
- Respiratory distress, airway compromise or intubation
- Shock/diminished perfusion:
 - Adult BP <90 or HR>120
 - Child Cap refill > 2 sec
- Suspected Cardiac or Major Vessel injury
- Penetrating wound to the head, neck, chest or abdomen
- Severe facial injuries
- Traumatic paralysis
- Severe burns (Burns with concomitant trauma)

- Severe orthopedic injuries (ie, Pelvic fracture, more than 1 long bone fracture, unstable facial fracture)
- Death in same passenger compartment
- Ejection from auto
- Aeromedical launched by EMS
- Pedestrian struck or thrown by auto
- Pregnancy > 20 weeks with vaginal bleeding or contractions
- Physician/Nurse/EMS discretion
- Gross traumatic injury/event with non-penetrating blunt trauma
- High index of suspicion for potential injury based on mechanism of injury (ie; Rollover)

Mechanism of Injury:

- *Fall >15 feet*
- *>65 y. and fall from elevation or down stairs*
- *Pediatric <10 yo : >2x the patient's height*
- *Ejection from auto*
- *Pedestrian struck and thrown by auto*

Upon notification the ER trauma nurse, Emergency Medical Services (EMS) or any of the aforementioned will activate the trauma system and calls will be made to the trauma team

Trauma team members for a **Level I (Code Red)** activation are:

- 1) Trauma team leader
- 2) General Surgeon when necessary
- 3) Emergency department trauma nurse
- 4) Nurse manager
- 5) Anesthesia
- 6) Respiratory Therapist
- 7) Laboratory technician
- 8) Radiology technician
- 9) Unit Secretary
- 10) Surgery Nurse x 2
- 11) Intensive Care Unit (ICU) RN
- 12) Scribe (documenter)
- 13) Social Services
- 14) Chaplain
- 15) Security/Maintenance
- 16) Obstetrical (OB) RN PR

Level II Activation (Code Yellow)

Activate Level II Trauma team upon realization that any of the following conditions exist, either upon arrival of the patient or notification by EMS.

Adult or pediatric trauma patient and presenting with:

- GCS >10 and <14 secondary to trauma
- Suspected Severe orthopedic injuries: (Femur Fx, Open Long Bone Fx, Knee dislocation)
- Burns: (>20% TBSA, Facial burns, Suspected inhalation burn)
- Traumatic paralysis or focal neurological S/S (ie, numbness, tingling)
- Provider discretion; consider for: (Multiple injuries (two or more systems or severe single system injury
- Co-morbid factors: (Anti-coagulant therapy, Age <5 or >55yo, Multiple co-morbidities

Mechanism of Injury

- Death in same passenger compartment
- Extrication time >20 minutes
- Motorcycle, snowmobile or ATV crash with separation of rider
- Bicyclist struck by auto with separation of rider

Upon notification the ER trauma nurse, Emergency Medical Services (EMS) or any of the aforementioned will activate the trauma system and calls will be made to the trauma team.

Trauma Team members for a **Level II (Code Yellow)** activation will consist of:

- 1) Emergency Physician
- 2) Emergency Department RN
- 3) Nursing supervisor
- 4) RN x1
- 5) Radiology technician
- 6) Laboratory technician
- 7) Unit Secretary
- 8) Scribe

The individual roles of the team members are subject to change based on the needs of the patient and resources available during the resuscitation. Below is a guideline. The provider leading the resuscitation may modify the duties of any team member if in the best interest of the patient.

Trauma Team leader

Physician or Surgeon

- Participates in trauma call
- Is Advance Trauma Life Support (ATLS) certified
- Perform primary and secondary survey
- Perform or delegate airway management
- Perform procedures as needed such as chest tube insertion, central venous access, ultrasound exam
- Order appropriate lab and radiographs
- Responsible for all medications and fluids given
- Make triage and transfer decisions
- Determine the need for and mode of inter-facility transfer (air vs. ground) early in resuscitation course
- Communicate directly with receiving physician at trauma hospital regarding transfer
- Document case (complete trauma flow sheet, dictate emergency department note)
- Complete and sign patient transfer form

Emergency Department Nurse

- Is Trauma Nurse Core Course (TNCC) certified
- Activates Trauma
- Takes pre-hospital report, and communicates all information to team members
- Prepare trauma room and equipment before patient arrival
- Maintains trauma room temp at 80-82 degrees F
- Assist EMS with transfer from EMS gurney to trauma bed.
- Assures a short period of quiet time on patient arrival for EMS report

- Assist with removing patient clothing
- Assists with applying the heart monitor, NIBP and SAO2
- **Obtain GCS and report aloud to scribe**
- Make sure scribe is aware of significant changes in the patient's status
- Accompanies patient out of department for any diagnostic procedures
- Assures all protocols are observed
- Assists with arrangements and paperwork for transfer
- Is liaison with law enforcement and flight services
- Maintains patient privacy and safety, (door closed, curtain pulled, etc.)
- Assures each trauma member has followed universal precautions and radiation protection
- Oversees all care of the trauma patient

Nursing Manager

- Assess staffing needs; delegate additional nursing staff as required to attend trauma patient or others in the emergency department
- Ensure all team members are wearing appropriate protective equipment
- Monitors activities of the trauma team
- Assist others with equipment and procedures as needed.
- Control traffic in the trauma room; keep other patients and family members away from traffic areas
- Communicate with family in collaboration with family support staff member
- Assist with transfer arrangements and paperwork

Anesthesia

- Initially assist with airway management as directed by trauma team leader
- Assist with vascular access (peripheral or central)
- Assist with ventilation PRN
- Place NG or OG tube as directed by physician in charge
- Works closely with Respiratory therapy

Respiratory Therapy

- Check airway equipment before patient's arrival (Suction, Laryngoscope, O2, Ambu bag)
- Works closely with anesthesia
- Maintain oxygen; ensure SpO2 unit functions properly; assist with ventilation with BVM as necessary and as directed by trauma team leader
- Assist with intubation
- Check tube placement after intubation with esophageal detector device, attach end tidal CO2 monitor and secure ET tube
- Ventilate patient; set up transport ventilator if necessary
- Monitor end tidal CO2 and SpO2
- Draw ABG's upon order
- Notify scribe of airway status, position of OETT, vent settings, ETCO2, RR and pattern

ICU Nurse

- Checks and prepares equipment (crash cart/heart monitor) prior to patient arrival
- Assists EMS with patient transfer from EMS gurney to bed
- Attaches patient to the heart monitor and identifies rhythm
- Relays heart rhythm and rate aloud to scribe
- Relays changes in rhythm aloud to scribe PRN
- Follows Advanced Cardiac Life Support (ACLS) protocols
- Administers IV medications and drips as per physician order

RN'S X 2

- EMS with patient transfer from EMS gurney to bed
- Assists with removal of patient clothing
- Applies NIBP and SAO2 and reports aloud to the scribe
- Takes manual BP on trauma patient PRN
- Assists with assuring 2 large bore IV sites
- Assists with other procedures and equipment as necessary
- Places Foley catheter if no contraindications

Surgery Nurses X2

- Assists with surgical interventions (Chest tubes, Triple lumen, Cric., etc.)

OB RN

- Responds to trauma on an as needed basis to assist in caring for the pregnant trauma patient
- Does fetal monitoring as ordered by the physician

Laboratory Technician

- Respond promptly to trauma room
- Assure identification of trauma patient
- Obtain diagnostic labs as per physician orders by drawing or obtaining samples from EMS or Nurse and label appropriately
- If central line placed step forward to obtain specimens as needed
- Determine availability of blood; bring O negative blood to trauma room immediately if requested

Radiology Technician

- Respond immediately to trauma team activation page; transfer portable x-ray machine to ER, ensure enough film plates for basic trauma radiographs
- Place chest plate on trauma cart under backboard before patient arrives
- Obtain radiographic priorities from physician in charge
- Ensure lead aprons available as needed
- Transfer ultrasound machine to ER and obtain fast exam per physician order
- Notify trauma team of suspected fractures
- Protect c-spine until cleared by physician

Unit Secretary

- Activate trauma team upon notification by ER Trauma nurse & document times notified
- Confirm all trauma team members have been notified & record arrival times
- Admit patient to ER per computer
- Enter orders as directed by ER trauma nurse or Trauma team leader
- Contact receiving trauma hospital as directed by trauma team leader
- Assemble and copy all documentation for transport team
- Direct family members to family support person
- Prepare patient transfer forms and obtain trauma team leader signature if patient transferred

Scribe

- Does all documentation regarding trauma patient care
- Documents all physician orders
- Documents on trauma flow sheet
- Keeps all of patients reports with documentation form

Social Services/Chaplain

- Meet family members, escort them to the ER lobby
- Offer to contact others, e.g., family, friends or clergy
- Authorize food services to provide refreshments to family members as necessary
- If the patient is transferred, ensure that family members have transportation and directions to receiving facility
- In the case of patient's death, assist with notification of clergy and funeral service information as needed

Security

- Secure helicopter landing pad and assist flight crew with equipment PRN
- Assist with transportation of the patient to the helipad as needed.
- Assist with traffic control regarding helipad and with family/visitors PRN

Procedure: EMS or the emergency department nurse is made aware of a patient meeting trauma team activation criteria. The trauma physician on call is notified by the emergency department nurse. Trauma team activation is done according to Level I (Code Red) or Level II (Code Yellow) activation criteria.

The emergency department nurse and the unit secretary notify the trauma team per phone or “Call ‘em all” of the activation and notification time is documented.

Team members assemble in the emergency room and document time and signature of their arrival.

The emergency room trauma nurse briefs the team on the condition of the patient as duties are begun.

Personal Protective Equipment (PPE) should be worn by all personnel who work directly with the patient:

- Gowns
- Gloves
- Masks to include eye shields
- Shoe covers, surgical caps
- Lead aprons PRN

Keep talking and noise to a minimum to ensure patient privacy.

Ensure a private environment. Keep doors and curtains closed.

Verbally acknowledge all orders.

Stand in an area removed from the patient until called upon or dismissed, if not directly involved in patient care.

Place the patient’s clothing and belongings into labeled bags as soon as possible.