Manual: Administration Policies and Procedures Manual
Policy Number: 01.16.01

Initial Date: 06/15
Review Dates:
Revised Dates:

TRAUMA ACTIVATION PLAN

Purpose:

To provide immediate trauma care/resuscitation in a coordinated effort by individuals with expertise for patients with multiple-system or major injury.

Definitions:

Trauma Team activation criteria:

- Blunt trauma code with vital signs initially present at the scene
- All penetrating trauma codes
- Respiratory distress includes any of the following:
  - Difficulty breathing
  - Chest wall instability or deformity (e.g., flail chest)
  - Respiratory rate < 10 or > 29 bpm
  - Intubation
- Confirmed SBP < 90 mmHg at any time in adults and age-specific hypotension in children and/or clinical evidence of shock
- Transfer patients from other hospitals receiving blood to maintain vital signs
- Active arterial bleeding due to trauma, excluding digits
- Decreased level of consciousness (GCS ≤ 13), with mechanism attributed to trauma
- Penetrating injury to head, neck, torso, or extremities proximal to elbow or knee
- Open or depressed skull fractures
- Unstable pelvic fractures
- Two or more long bone fractures, open
- Patients with evolving or developing limb paralysis or a pulseless extremity with traumatic mechanism
- Amputations proximal to elbow or knee
- Major falls
  - Adults (20 or more feet)
  - Children (2-3 times the height of the child)
- Emergency physician discretion
- 2nd and 3rd degree burns > 10% BSA in patients under 10 or over 50 years old
- 2nd and 3rd degree burns > 20% BSA in patients between 10 and 50 years of age
- Electrical burns including lightning injury
- High risk auto crash (this would be defined as any of the following):
  - Interior compartment intrusion > 12 inches

- Ejection (partial or complete) from automobile
    - Death in same passenger compartment
- Auto versus pedestrian/bicyclist thrown, run over, or with significant (>20 mph) impact
- Motorcycle/ATV crash > 20mph
- High energy mechanism with one of the following:
    - Pregnancy > 20 weeks
    - Anticoagulation or bleeding disorder
- Amputations between elbow and wrist
- Amputations between knee and ankle
- Single open fracture of proximal long bone
- Two or more obvious proximal long bone fracture, closed
- Emergency physician discretion (consider extremes of age; i.e., the risk of injury death increases after age 55 years)

Policy:

I. General

A. A multidisciplinary Trauma Response Team as endorsed by the State of Kansas Trauma Program will be used in an effort to provide coordinated, complex care to patients with multiple-system or major injury.

II. Procedure

A. Code Trauma Activation

1. Those authorized to initiate Trauma Activation:

    a. ED Physician
    b. ED RN with successful completion of TNCC

2. The ED Nurse in consultation with the ED physician makes the decision to activate the Code Trauma based upon pre-hospital information received.
3. Initial Response

    a. Upon activation, "Code Trauma" will be announced overhead three (3) times. All members of the Trauma Team, if not already in the Emergency Department, will respond immediately to the Trauma Resuscitation Room.
    b. Each Trauma Team member documents their name and the time of their arrival in the designated space located outside the room.
    c. Each Trauma Team member is expected to utilize universal precautions to include: shoe covers, mask, gown and gloves when entering the room

B. Response Times

1. Upon activation of Code Trauma, the Trauma Team is expected to respond quickly. When in the facility, and available, all members of the Trauma Team are expected to respond, not to exceed 15 minutes from patient arrival. When on call or outside of the facility, response time will be based on team member notification, not to exceed 30 minutes if presence is determined necessary.
2. The ED Physician will strive to be at the bedside on arrival of all trauma activations. Expected bedside response time will not exceed 5 minutes from patient arrival.

C. Disposition Decision Time

1. Upon completion of the initial assessment, physician will start to consider the patient disposition plan. The recommended amount of time to decide if the patient needs to be transferred to a tertiary facility should be made within the first hour with the transfer being completed within three hours. Understanding patients and circumstances are addressed on a case by case basis; transfers to a tertiary facility should not exceed six hours.
2. Patients being admitted or being discharged home should strive to follow the same recommended decision time frame with a recommended discharge time of two (2) hours based on CMS standards of practice. Understanding patients and circumstances are addressed on a case by case basis; discharges should not exceed six hours.

D. Direct Care Team Roles and Responsibilities – Reports to Trauma Resuscitation Room

1. Emergency Physician (Trauma Leader – Current ATLS required except for rare and unusual events where a Locum Tenens is called in as a backup)

    a. Provides communication between pre-hospital and hospital (emergency) personnel
    b. Notification of the Trauma Surgeon in a timely manner
    c. Activates multidisciplinary Trauma Team
    d. Directs the Trauma Team and accepts responsibility, including performing initial assessment and survey of patient
    e. Conducts rapid briefing of Trauma Team members regarding field history

2. Trauma Nurse I (Team Facilitator, ED Nurse - Current TNCC required)

    a. Instructs ED Clerk to announce "Code Trauma"
    b. Trauma packet to Admitting/Registration Clerk for entry into the computer
    c. Stands on the right side of the bed
    d. Responsible for the initial trauma assessment following TNCC standards of practice
    e. If Respiratory Therapist is not currently available, will maintain airway, suction, and provide supplemental oxygen for the patient until Respiratory Therapist can assume care
    f. Applies hard cervical collar, if not already in place, and checks GCS
    g. Performs the following or delegates to other team member:

        i. Cutting off clothes and covering patient with warm blankets
        ii. Attaching cardiac monitor, non-invasive blood pressure monitor and pulse oximeter
        iii. Obtain complete set of vital signs
        iv. Insert right side large bore IV line, if not in place on arrival
        v. Secondary assessment
        vi. Performs other procedures/treatments and administers medications as directed by Trauma Leader
        vii. Assures collection of all specimens including urine specimen
        viii. Works with Trauma Scribe to ensure accurate documentation of ongoing assessments, including vital signs, GCS, and medication/s administration

    h. Gives report to nurse assuming care of patient (upon stabilization patient assignment may change while still in the ED; SBAR report will be given with each handoff)
    i. Responsible for disposition of clothing and valuables
    j. Accompanies the patient to all procedures outside of the Emergency Department
    k. Documents on Trauma Flow Sheet
    l. Consults other departments as needed (e.g., Social Services to assist with family needs/notifications)
    m. Verifies trauma resuscitation orders (including those by the Trauma Surgeon)are documented and entered in the

computer

3. Trauma Nurse II (Trauma Scribe, ED Nurse – TNCC required):

    a. Assists with preparing Trauma Resuscitation Room.
    b. Documents assessment findings/interventions on Trauma Flow Sheet
    c. Maintains ongoing communication with Blood Bank, if patient receiving blood products
    d. Collaborates with Nursing Supervisor to direct traffic flow in and out of the room
    e. Restocks the room
    f. Uses designated trauma phone for calls related to treatment of the trauma patient
    g. Assists in initiating the transfer process
    h. Maintains excellent communication with Trauma Nurse I, reminding him/her of needed assessments and medications in a timely manner

4. Trauma Nurse III (ICU or ED Nurse, TNCC required):

    a. Assists Trauma Nurse I with assessment starting with monitoring equipment
    b. Stands on the left
    c. Inserts IV line, if not in place from field
    d. Ensures patency of IV lines
    e. Changes initial IV fluids to warmed fluids maintaining 38-39˚C.
    f. Administers blood products, as ordered
    g. Maintains currency and patency of IV solutions, as ordered
    h. Assists with procedures
    i. Communicates interventions/findings with team leader and recorder
    j. Sets up hemodynamic monitoring equipment

5. Respiratory Care Practitioner

    a. Goes directly to the head of the bed when patient arrives
    b. Establishes and maintains airway, suctioning, and provides supplemental oxygen (100% unless ordered differently by physician)
    c. Assists with intubation
    d. Maintains and monitors pulse oximeter

e. Monitors end tidal CO_2
f. Obtains arterial blood gases, as directed by Trauma Leader
g. Assists with cardiac compressions, as needed
h. Accompanies patient to procedures outside the Emergency Department to maintain airway and provide supplemental oxygen when patient is intubated and/or requires BVM assisted ventilations or is on a ventilator
i. Communicates interventions/findings with Team Leader and recorder
j. Sets up ventilator as needed

6. Pharmacy

   a. Responds, based upon availability
   b. Stands near sink and Trauma Nurse III
   c. Draws up medications and calculates dosages

E. Support Staff Roles and Responsibilities

1. Remains in the ED, near Trauma Resuscitation Room, until further instructed or released by the Nursing Supervisor. Will only enter room upon permission and will exit upon completion of specific duties.

   a. Radiology Technologist

      i. Ensures portable machine is available outside the room but not blocking the entrance to the room
      ii. Ensures adequate films and grids are available for STAT portable chest and pelvis, as well as C-spine, abdomen and two extremities, if needed
      iii. Films as ordered by physician
      iv. Brings lead aprons to room for Trauma Team members

   b. CT Technologist

      i. Performs CT Scans as ordered by physician
      ii. Notifies Radiologist on-call of Trauma evaluation

   c. Phlebotomist/Medical Technologist

      i. Draws blood, as requested
      ii. Assists RN or physician with drawing blood and filling/labeling tubes
      iii. Carries blood samples to Laboratory

iv. Performs lab tests, as ordered
v. Places blood bank band

d. Nursing Supervisor

i. Becomes Command Center for ED outside of Trauma Resuscitation Room
ii. Facilitates timely patient throughput of ED admitted patients, including assisting in the initiation and coordination of transferring the trauma patient to designated location
iii. Checks with Trauma Nurse I to verify if additional help is needed
iv. Reports to ED Nurse to see what assistance is needed to care for other ED patients
v. Assists with care and comfort of family/significant other
vi. Facilitates traffic flow in and out of the room
vii. Makes determination of staffing needs and assignments in order to assure optimal patient care

e. ED Clerk/Operator

i. Pages overhead "Code Trauma" three (3) times when requested
ii. Documents activation time
iii. Calls additional team members as instructed by Trauma Team and documents time
iv. Monitors lobby and alerts Trauma Team of family arrival or patients needing assistance
v. Places orders, as directed
vi. Gives Trauma Nurse II call times for documentation

f. ED Tech

i. Aides in ED patient rounds, closing doors, and answering call lights
ii. Maintains vital signs on all ED patients and updates Nursing Supervisor of any concerns or status changes
iii. Ready to help, as requested

F. Additional Resources

1. Additional resources with limited availability due to on call status may be requested by the Team Leader during the care of the trauma patient. The roles are as follows:

a. OR Nurse

i. Sets up surgical instruments and field
ii. Communicates with Operating Room
iii. Communicates to Trauma Surgeon or Trauma Nurse I when the OR is ready
iv. Calls in appropriate Surgical Services staff

v. Verifies with Trauma Leader if OR can be released

b. Trauma Surgeon (Current ATLS)

i. Serves as Team Leader when requested/agreed upon by the ED physician
ii. Performs initial assessment and primary survey upon arrival
iii. Establishes airway and intubates as indicated while maintaining C-spine immobilization
iv. Directs all team activities
v. Defines priorities of care
vi. Performs invasive resuscitation surgical procedures
vii. Notifies Radiologist on-call
viii. Notifies appropriate subspecialists
ix. Responsible for overall care rendered to the trauma patient throughout his/her hospital stay
x. Continually communicates findings/interventions/orders to Nurse Scribe and Trauma Team members

c. Trauma Program Director/Coordinator/Facilitator

i. Monitors ongoing function of team
ii. Relieves Trauma portion of Nursing Supervisor duties
iii. Serves as an extension of the Trauma Surgeon as per his/her direction
iv. Conducts post activation evaluation, if present during activation

d. Anesthesiology

i. Establishes venous access and/or invasive monitoring
ii. Performs or assists with procedures
iii. Performs pre-anesthesia evaluation
iv. Coordinates possible OR activity (OR staff, OR room and OR scheduling)

e. Franklin County EMS (as county status permits)

i. Assists with transferring patient to ED cot and assist with lifting
ii. Assists with removing clothing
iii. Gives collaborative nursing support, not to include invasive procedures

f. ED Director

i. Relieves ED portion of Nursing Supervisor duties
ii. Manages the ED until the nurses involved in Code Trauma have completed their tasks

G. Evaluation

1. Each Trauma Team member responding to a “Code Trauma” may participate in evaluating team performance
2. Concerns/issues will be reviewed by the Trauma Department Committee

3. The Trauma Department Committee will monitor, evaluate and improve the Trauma Activation Plan

Approved:

Chief Executive Officer	Date
Chief Nursing Officer	Date
Chief of Medical Staff	Date
Chairman of the Board of Trustees	Date
Trauma Medical Director	Date

Reviewed by:

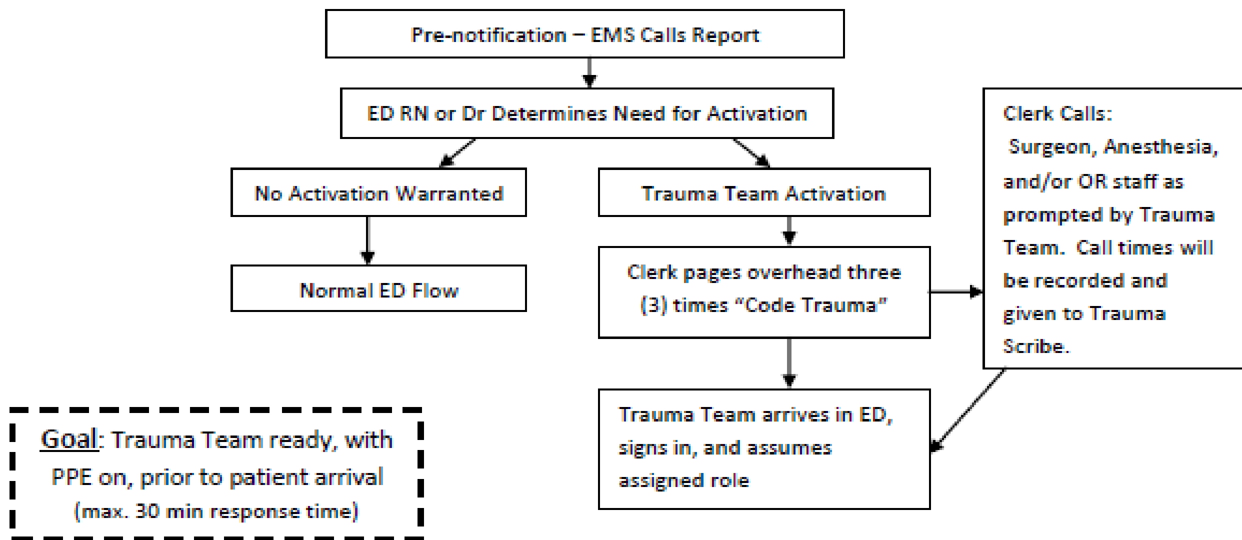
Dorothy Rice, Quality/Risk Management Director; Tammie Newberry, Trauma Coordinator; Angie Welch, Emergency Director/Trauma Facilitator; Stacy Steiner, Chief Nursing Officer; Emergency Services Committee; Surgical Services Committee; Trauma Services Committee; Trauma Interdisciplinary Committee; Medical Executive Committee; Board of Trustees

References:

Resources for Optimal Care of the Injured Patient 2014

Trauma Nursing Core Course (TNCC) Standards of Practice

Trauma Activation Process



Trauma Team Roles

Direct Care Team (Reports to Trauma Room)

PPE required (gloves, shield mask, gown, & booties)

ED Physician: Runs Code Trauma, hands off to surgeon when mutually agreed is appropriate
Trauma Nurse 1: Focuses on Patient Assessment & Care
Trauma Nurse 2: Focuses on documentation and directs flow, keeps designated trauma phone, order entry
Trauma Nurse 3 (ICU): assists TN 1 with procedures, equipment and medications (fluids, blood, etc)
Respiratory Therapy: Manages Airway, assist Anesthesia
Pharmacy: Draws up medications and calculates dosages
Trauma Surgeon: On an as needed basis

Support Staff Team (Reports Outside Trauma Room)

Do not enter room until needed

Nursing Supervisor: ED Command Center, directs Support Staff
Lab: Manages blood for tests and transfusions
CT/X-ray: be ready with portable machine
Inpatient Nurse: (2W/OB) answer call lights, assist monitoring of ED patients, responds only when requested
ER Tech: Monitors vitals of ED patients, aides where needed
ER Clerk: Overhead pages "Code Trauma", stays at desk, assists with order entry, monitors lobby
ER Nurse 3: Manages ED patients, Triage, assists where needed, will be Trauma Nurse 3 if ICU unavailable