

SOUTHWEST OHIO REGIONAL TRAUMA SYSTEM

ADULT AND PEDIATRIC

**TRIAGE and TRANSPORTATION
GUIDELINES**

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**SOUTHWEST OHIO REGIONAL TRAUMA SYSTEM
ADULT and PEDIATRIC
TRIAGE and TRANSPORTATION GUIDELINES**

I. INTRODUCTION:

- A. The goal of any trauma patient assessment and transportation guideline is to facilitate “whatever gets the patient to the most appropriate level of care in the most expeditious manner”. *There is strong evidence that shows that reducing the time interval from the moment of injury to delivery/arrival at a definitive care site will reduce morbidity and mortality.*
- B. These guidelines were developed to assist the emergency responder to determine what constitutes a trauma patient and where to transport the trauma patient.
- C. In the pre-hospital care environment, time, distance, patient condition, and level of care are important variables when making decisions for transporting the trauma patient. These variables are frequently hard to assess in the field and are ever changing. **THESE GUIDELINES ARE MEANT TO SUPPLEMENT, BUT NOT REPLACE THE JUDGEMENT OF THE ON-SCENE EMT.**
- D. *The Southern Ohio Regional Trauma System (SORTS) encourages all Fire and EMS Agencies and their personnel to review the Trauma Triage and Transportation Guidelines on an annual basis.*

II. CONCEPTS:

- A. Rapid field evaluation, treatment, and transport are vital to the overall outcome of the trauma patient. After the trauma patient’s extrication, the on-scene time should be limited to **TEN MINUTES** or less, except when there are extenuating circumstances.
- B. Trauma Patients, as identified in this document, should be transported to “**THE NEAREST APPROPRIATE TRAUMA CENTER.** Adult trauma centers must be verified by ACS/or provisionally designated. Pediatric Trauma Centers must be verified/provisionally designated as a Level II Center.
- C. Use of on-line, active medical control for medical direction in the field, particularly for difficult cases, is encouraged in compliance with regional standing orders.
- D. **PRE-ARRIVAL NOTIFICATION OF THE RECEIVING FACILITY IS ESSENTIAL!**

III. TRAUMA CENTER \ FACILITY CAPABILITIES: *The Southwest Ohio Regional Trauma System (SORTS) is an inclusive model that integrates the resources of all*

facilities throughout the region in providing care to the severely injured trauma patient.

- A. Level I and II Trauma Centers can care for the same trauma patients.
- B. ***Level III Trauma Centers offer services, based on individual hospital resources, that provide for initial assessment, resuscitation, stabilization, and treatment for the trauma patient.***
- As required under State law, the Level III Trauma Center will have established Transfer Agreements with the Level I and II Trauma Centers in the region.
 - In the areas of the region where the Level III Trauma Center is the only verified trauma facility, (within 30 minutes ground transport time), this hospital may act as the primary receiving facility for the critically injured patient.
 - In areas where the trauma patient is in close proximity to a Level III trauma center and a Level I or II trauma center is still within the 30 minute transport guidelines established in this document, the EMS Provider should exercise professional judgment as to whether the patient would benefit more from an immediate evaluation, stabilization and treatment at the proximate Level III trauma center or from direct transport by EMS Provider to the Level I or II trauma center.
 - **It is the responsibility of the Level III Trauma Centers to educate the pre-hospital care providers about the Trauma Center's capabilities.**
- C. In areas of the region where there are no verified Trauma Centers (within 30 minutes ground transport time) the acute care hospital may act as the primary receiving facility for critically injured trauma patients. EMS provider may arrange for air medical transport from the scene.
- D. If a pediatric patient meets the trauma triage guidelines, then they are taken to a pediatric trauma center. If transportation time is >30 minutes to a trauma center, then transport to nearest acute care hospital for stabilization and transfer. EMS provider may arrange for air medical transport from the scene.
- E. **All pregnant trauma patients should be transported to the NEAREST ADULT Trauma Center, unless transport time > 30 minutes.**
- F. Ohio Region 2 Fire Departments/EMS Agencies bordering Indiana have limited local trauma centers. Trauma patients are transferred from Indiana to Ohio Region 2 Trauma Centers.

IV. AIR MEDICAL TRANSPORTATION

PRE-ARRIVAL NOTIFICATION OF THE RECEIVING FACILITY IS ESSENTIAL.

- A. Prolonged delays at the scene waiting for air medical transport should be avoided. If air medical transportation is unavailable (e.g. weather conditions), patient should be transported by ground.
- B. Air transport, if dispatched to the scene, should be diverted to the acute care hospital if the patient appeared appropriate for air transport but the decision was made to transport to the nearest facility (non-trauma center) in the interim.
- C. Air Medical Programs share the responsibility to educate EMS units and facilities on appropriate triage. They should also institute an active utilization and quality review program that provides feedback to EMS units.
- D. Traumatic cardiac arrest due to blunt trauma is not appropriate for air transport.
- E. In the rural environment, direct transfer of trauma patients by air medical transport may be appropriate and should be encouraged.

V. USE OF GUIDELINES:

A. Determine if the patient qualifies as a trauma patient

B. Determine where and how the trauma patient is to be transported.

C. EXCEPTIONS:

1. *It is medically necessary to transport the victim to another hospital for initial assessment and stabilization before transfer to an adult or pediatric trauma center;*
2. *It is unsafe or medically inappropriate to transport the victim directly to an adult or pediatric trauma center due to adverse weather or ground conditions or excessive transport time;*
3. *Transporting the victim to an adult or pediatric trauma center would cause a shortage of local emergency medical services resources.*
4. *No appropriate trauma center is able to receive and provide trauma care to the victim without undue delay;*
5. *Before transport of a patient begins, the patient requests to be taken to a particular hospital that is not a trauma center or, if the patient is less than 18 years of age or is not able to communicate, such a request is made by an adult member of the patient's family or legal representative of the patient.*

VI. HOSPITAL/INTER-HOSPITAL TRANSFER OF TRAUMA PATIENTS:

A. Written protocols and agreements between facilities for transport/transfer of trauma patients are required.

- B. EMS and local facilities should have active discussions regarding each other's capabilities.

7/16/01

PRE-HOSPITAL FIELD ADULT TRAUMA TRIAGE GUIDELINES

Utilize for persons 16 and above

Patients to be taken to **nearest** hospital:

- Unstable airway
- Blunt trauma arrest, no pulse or respirations
- **All pregnant trauma patients should be transported to the NEAREST ADULT Trauma Center, unless transport time > 30 minutes.**

ANATOMY OF INJURY

1. All penetrating trauma to head, neck, torso, and extremities proximal to elbow and knee
2. Abdominal injury with tenderness, distention, or seat belt sign
3. Chest injury: Flail chest and/or tension pneumothorax
4. Two or more proximal long bone fractures
5. Evidence of pelvic fracture (exception: isolated hip fracture)
6. Spinal cord injury with signs and symptoms of paralysis
7. Burns greater than 10% Total BSA or other significant burns involving the face, feet, hands, genitalia, or airway
8. Amputation proximal to wrist and/or ankle
9. Evidence of serious injury of 2 or more body systems
10. Crush injury to head, neck, torso, or extremities proximal to knee or elbow

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**YES = To Trauma Center
Alert Trauma Team**

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NO = Assess Physiologic

PHYSIOLOGIC

1. GCS \leq 13, loss of consciousness at anytime greater than 5 minutes, deterioration in level of consciousness at the scene or during transport, or fails to localize pain
2. Respirations less than 10 or greater than 29 or intubation/relief tension pneumothorax
3. Pulse greater than 120 in combination with evidence of hemorrhagic shock
4. Systolic blood pressure less than 90 or absent radial pulse with carotid pulse present

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**YES = To Trauma Center
Alert Trauma Team**

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**NO = Evaluate mechanism of injury
if high energy impact**

PRE-HOSPITAL FIELD ADULT TRAUMA TRIAGE GUIDELINES

MECHANISM OF INJURY

1. Ejection from motor vehicle
2. Death in same passenger compartment
3. Extrication time > 20 minutes
4. Falls > 20 feet
5. Unrestrained rollover
6. High Speed auto crash
 - Initial speed > 40 mph
 - Major auto deformity > 20 inches
 - Intrusion into passenger compartment > 12 inches
7. Auto-pedestrian or auto-bicycle injury with significant (> 5 mph) impact
8. Pedestrian thrown or run over
9. Open motor vehicle crash >20 mph or with separation of rider from vehicle

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**YES = Contact medical control
in compliance with Regional
Standing Orders.**

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NO = check Special Situations

SPECIAL SITUATIONS

1. Age >55
2. Preexisting cardiac and/or respiratory disease
3. Insulin dependent diabetes, cirrhosis, morbid obesity, seizure
4. Patient with bleeding disorder or on anticoagulants
5. Immunosuppressed patients (renal dialysis, transplant, cancer, HIV)
6. All pregnant trauma patients should go to nearest adult trauma center, if within 30 minutes transport time

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**YES = When in doubt Contact Local Medical
Control**

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**NO = Reevaluate with Medical
Control**

August 28, 2002
Updated 7-7-04
PKB/pbt

**Region II EMS Trauma Triage Protocols: Approved by the State EMS Board – August 18, 2004
These protocols supercede OAC 4765-14-01, 4765-14-02, 4765-14-05**

PRE HOSPITAL FIELD PEDIATRIC TRAUMA TRIAGE GUIDELINES

Utilized for persons under 16 years of age

Patients to be taken to the **nearest** hospital:

- Unstable airway
- Blunt trauma arrest, no pulse or respirations
- **All pregnant trauma patients should be transported to the NEAREST ADULT Trauma Center, unless transport time > 30 minutes.**

Pediatric Trauma Center - Utilize Broslow Tape and Pedi Wheel for determining normal vital signs

ANATOMY OF INJURY

1. Penetrating trauma to head, neck, torso, and extremities proximal to elbow and knee
2. Abdominal and/or chest injury with tenderness, distention, or seatbelt sign
3. Chest injury: Flail chest and/or tension pneumothorax
4. Two or more proximal long bone fractures
5. Evidence of pelvic fracture including hip
6. Signs or symptoms of a spinal cord injury
7. Burns greater than 5% Total BSA or other significant burns involving the face, feet, hands, genitalia, or airway
8. Amputation proximal to wrist and/or ankle
9. Evidence of serious injury of (two) 2 or more body systems
10. Crush injury to head, neck, torso, or extremities proximal to knee or elbow

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**YES = To Pediatric Trauma Center
Or Adult & Pediatric Trauma Center
Alert Trauma Team**

↓

NO = Assess Physiologic

PHYSIOLOGIC

1. $GCS \leq 13$, Loss of consciousness at anytime greater than 5 minutes, deterioration in level of consciousness at the scene or during transport, failure to localize pain
2. Evidence of poor perfusion (i.e.; weak distal pulse, pallor, cyanosis, delayed capillary refill, tachycardia)
3. Evidence of respiratory distress or failure (i.e.; stridor, grunting, retractions, cyanosis, nasal flaring, hoarseness or difficulty speaking)

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**YES = To Pediatric Trauma Center
Or Adult & Pediatric Trauma Center
Alert Trauma Team**

↓

**NO = Evaluate mechanism
injury if high energy impact**

PRE-HOSPITAL FIELD PEDIATRIC TRAUMA TRIAGE GUIDELINES

MECHANISM OF INJURY

1. Ejection or unrestrained occupant of a motor vehicle
2. Death in same passenger compartment
3. Extrication time >20 minutes
4. Falls 3 times child's height
5. Unrestrained rollover
6. High Speed auto crash
 - Initial speed > 40 mph
 - Major auto deformity > 20 inches
 - Intrusion into passenger compartment > 12 inches.
7. Auto-pedestrian/auto-bicycle injury with significant (> 5 mph) impact.
8. Pedestrian thrown or run over
9. Open motor vehicle crash >20 mph or with separation of rider from vehicle

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**YES = Contact Medical Control,
in compliance with Regional
Standing Orders**

↓

NO = Check Special Situations

SPECIAL SITUATIONS

1. Congenital disorders*
2. Cardiac or chronic respiratory condition
3. Insulin dependent diabetes, liver disease, morbid obesity
4. Patient with bleeding disorder or patient on anticoagulants
5. Immunosuppressed patients (renal dialysis, transplant, cancer, HIV)
6. All pregnant trauma patients should go to nearest adult trauma center, if within 30 minutes transport time.

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**YES = When in doubt Contact Local Medical
Control**

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**NO = Reevaluate with Medical
Control**

*Region 2 physicians realize that congenital disorders is a broad statement, but feels strongly that squads should contact online medical control when any questions arise. Examples Include, but are not limited to: developmental delay, craniofacial disorders, hydrocephalic, Downs syndrome, tracheomalacia, etc.