STRAC
Southwest Texas Regional Advisory Council

INTERFACILITY TRANSPORT RESOURCE GUIDE

1 *Before you call, have it all!*

- ☑ Pt Name
- ☑ Pt DOB
- ☑ Pt Location
- ☑ Priority
- ☑ Destination
- ☑ Handling Needs* or Special Equipment*

2 *Call a Contracted Transport Provider*

(List here)

***Examples of Special Equipment and/or Handling Needs the Ambulance Provider Should Be Made Aware of Includes:**

❑ **Is this an 'Alert' Patient?**
- **Heart Alert (STEMI)?**
- **Stroke Alert?**
- **Trauma Alert?**
- **Sepsis Alert?**
- **Or Other Acute Time-dependent Pathology?**

❑ **What are the equipment needs of the patient?**
- **Oxygen**
- **Cardiac Monitor**
- **IV Medication Pump(s); if yes, what IV drips is the patient on?**
- **Is the patient receiving whole blood or blood products?**
- **Ventilator**
- **CPAP / BiPAP**
- **Bariatric Stretcher**
- **Other / Miscellaneous Equipment**

❑ **Are there any isolation precautions?**

3 *Request Transport by Priority*

Select Priority 1, 2, or 3, For Patient Who:
- Is Bed Confined
- Is or May Be Medically Unstable
- Requires Monitoring
- Has Advanced Airway
- Has Psych/BH Diagnosis
- Specialized Handling
- Has Mobility Issues
- Requires Ambulance Per Physician

Priority 1 — Time Critical Transfer

EMERGENT RESPONSE

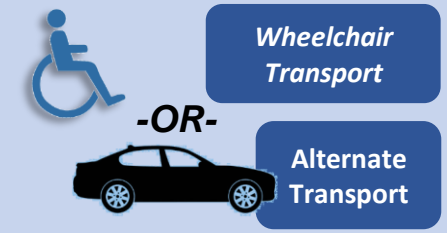
Priority 2 — ER & ICU Transfers

URGENT RESPONSE

Priority 3 — In-Patient Transfers

NON-URGENT RESPONSE

Scheduled or "Will Call" Non-Medical Transport For Patient Who:
- Is Medically Cleared
- Is Not Bed Confined
- Requires No Monitoring
- Has No Psych/BH Dx
- No ISO Precautions



Scheduled or "Will Call"
Non-medical transport for wheelchair or ambulatory patients

Patients must be able to:
- ❑ Follow commands
- ❑ Sit unassisted
- ❑ Stand and pivot

MEDICAL NECESSITY DOCUMENTED BY THE PHYSICIAN MAY SERVE AS OVERRIDE. SENDING PRACTITIONERS HOLD ULTIMATE RESPONSIBILITY TO ASSURE ADEQUACY OF PATIENT CARE AND SAFETY DURING INTERFACILITY TRANSFERS. THIS LIABILITY DOES NOT END UNTIL THE PATIENT REACHES THE ACCEPTING FACILITY.

MEMORANDUM OF UNDERSTANDING
between
AIR MEDICAL PROVIDERS, EMS PROVIDERS and HEALTHCARE FACILITIES
for
AIR MEDICAL SUPPORT OF CRITICAL CARE GROUND TRANSPORT

1. PARTIES

The Parties to this Memorandum of Understanding are the **Air Medical Providers** listed below, participating **Healthcare Facilities** within the STRAC region and licensed **EMS Providers** who have signed this Memorandum.

Air Medical Provider Program Name	Corporation / Part 135 Certificate Holder
Air Evac Lifeteam	Air Evac Lifeteam
San Antonio AirLIFE	Air Methods Corporation
Methodist AirCare	Air Evac Lifeteam
PHI Air Medical-CHOSA All Kidz	PHI Air Medical, LLC

2. EXECUTIVE SUMMARY

The STRAC Air Medical Providers Advisory Group (AMPAG) in collaboration with the Regional Emergency Department Operations Committee and Prehospital Committee has identified the need to provide medical support for ground EMS Providers in the event that air assets are not available to conduct inter-facility critical care transports for prolonged periods due to weather or other unforeseen circumstances.

3. ROLES AND RESPONSIBILITIES

a. All parties (transferring hospital, transferring physician, ground ambulance provider and air medical provider) must be in agreement the Ground Critical Care Transport can be conducted in a safe and efficient clinical environment.

   i) All parties understand that responsibility is shared.
   ii) All parties have equal right of refusal.
   iii) All parties are deemed to be in agreement once the inter-facility transfer mission has been accepted.

b. This document supports the Air Medical Provider with respect to crew safety, legal, and financial responsibility.

c. Requests for Air Medical Provider support of Critical Care Transport by ground should only be initiated when the transferring hospital's contracted ambulance provider (private or municipal) is not able to support Critical Care Transport by ground due to:

i) Ambulance Provider protocol or clinical capability
ii) Ambulance Provider availability

d. Air Medical Provider support of Ground Critical Care Transport should be considered when all Air Medical Providers in the region are not able to accept a request for inter-facility transfer based on a prolonged weather event or other mitigating factors preventing response.

e. Air Medical Provider support of Ground Critical Care Transport should not be considered when:

i) The patient meets criteria for air transportation and there are no mitigating factors to transport by air, such as weather or maintenance issues.
ii) The Air Medical Provider is able to accept mission.
iii) If the weather event prohibiting transport by air is forecasted to improve within the amount of time it would take to complete the transport by ground.

f. The Air Medical Provider shall have a process in place for rapid decision-making regarding requests for Ground Critical Care Transport Support.

g. The transferring hospital will be responsible for making the arrangements for ground transfer through their contracted ambulance provider and establishing the link to the Air Medical Provider, thereby recognizing the authority for clinical care of the patient to the Air Medical Provider. Liability associated with medical procedures will be maintained with the Agency providing primary care to the patient.

i) If the contracted ambulance provider is not available, the hospital is responsible for finding an alternate ground ambulance provider.
ii) The air medical crew have the right of refusal if the ambulance provider is not deemed adequate to support the transport based on:
    - Mechanical condition of the ambulance or availability of supplies.
    - Ambulance staffing: ambulance should consist of normal staffing configuration to meet DSHS requirement for transport.
iii) At no time shall the air medical crew be responsible for the operation of the ambulance.

h. The transferring hospital will be the payer of last resort for the transport.

i) The Air Medical Provider will not be held responsible for payment for the ambulance transport and/or use of disposable supplies.
ii) The Air Medical Provider will not bill for services rendered or the utilization of supplies.

i. The air medical crew will conduct patient care under the authority of the Air Medical Provider's Medical Director. Special equipment such as IV Pumps and medications will be provided by the Air Medical Provider if not already provided in the ambulance or by the requesting facility.
j. All administrative support for the air medical crew will be provided by the Air Medical Provider.

k. If any participating party to the transfer has a concern, the request shall be reviewed by the Systems PI Committee. This is on an as-needed basis.

l. The ground provider will be responsible for returning the Air Medical crew to its point of origin, whether it be the transferring facility or their base of operation once the transport has been completed. Arrangements will be made and agreed upon prior to commencing the transport.

7. TERM

a. This Memorandum of Understanding is in effect on the date on which it is signed and remains in effect for a period of three (3) years.

b. All parties reserve the right to terminate this MOU at any time, with or without cause, with thirty (30) days written notification to the Southwest Texas Regional Advisory Council.

8. MODIFICATION

a. This Memorandum of Understanding constitutes the complete agreement between the Parties relating to the matters specified herein, and supersedes all prior representations or agreements, whether written or oral, with respects to such matters.

b. This Memorandum of Understanding may only be modified through a written amendment signed by the Parties and thus no oral modifications hereof shall be permitted. The Parties agree to take such action as is necessary to amend this Agreement periodically as may be required by federal or State law.

IN WITNESS WHEREOF and acknowledging acceptance of the foregoing, the Participating Agency affixes their signatures hereto:

Southwest Texas Regional Advisory Council	
By: _____ David Jung, Prehospital Committee Chair _____ Date	By: _____ Eric Epley, Executive Director _____ Date
EMS Organization: _____	
By: _____ EMS Agency Head _____ Date	By: _____ EMS Medical Director _____ Date
Hospital or Healthcare System: _____	
By: _____ CEO Name _____ Date	

APPENDIX A:
Ground Transport Algorithm

>> Case submitted for Systems PI Committee Review by transferring hospital; submission form with instructions: www.strac.org/trauma

Appendix B
Ambulance Checklist

Confirm function and operations of the following ambulance systems

- ☐ Inverter
- ☐ Oxygen
  - ☐ Obtain onboard oxygen tank size and PSI
  - ☐ Ensure oxygen connections are compatible with air medical crew equipment
  - ☐ Complete PACO; ensure appropriate reserves
  - ☐ If required obtain additional oxygen tanks
- ☐ Confirm working suction and redundant system
  - ☐ Bring portable suction (operational requirement)
- ☐ Interior lighting
- ☐ Proper restraint system for patient (3 cross straps and shoulder straps, and ability to secure stretcher in ambulance
- ☐ Environmental controls as appropriate (heat / air conditioning)
- ☐ Stretcher operations and limitations
- ☐ Overall road and vehicle condition (wheels, external lights, siren, etc.; for issues with these items consult with leadership)
- ☐ Fire extinguisher in ambulance (and NOT expired)

Confirm air medical equipment (moved to ambulance per agency policy)

- ☐ Vent / AC power cord, charger, spare batteries
- ☐ Medication bag
  - ☐ IV fluids, blood, and blood products
- ☐ Scene bag / Jump bag
- ☐ Monitor / AC power cord, charger, spare batteries
- ☐ Suction / power

Comments:

Southwest Texas Regional Advisory Council

STRAC
System Notification

Priority: **Normal**

Date: **Friday, February 1, 2013**

To: For immediate release to all Hospital ERs, Stroke, Cardiac and Trauma coordinators, EMS agency Supervisor and Field Personnel

From: Eric Epley, Executive Director (*210-233-5815-MEDCOM* or eric@strac.org)

Issue:

Hospital Executive Leadership Protocol (HELP Group)

The STRAC Executive Committee has been discussing several sentinel events in our regional trauma/emergency healthcare system over the past 3 months. Unfortunately negative scenarios can and will occur occasionally and they usually fall outside the parameters of normal operating procedure. An example would be the inability to get a patient in a rural ER with a time-dependent pathology transferred to a tertiary facility in San Antonio in a timely manner. All hospitals are under pressure right now due to Influenza-like Illness (ILI), and critical care beds are at a premium. The first contact with a San Antonio facility may deny the inter-facility transfer and assume the patient will be accepted at another hospital in San Antonio. However, the first facility is unaware what the next hospital in San Antonio might say. The lack of situational awareness after denial of a transfer request can result in the referring facility feeling forced to transfer the patient hundreds of miles to other metropolitan areas of the state. The STRAC Executive Committee has determined that this is an opportunity for improvement.

The Executive Committee hospital representatives want to ensure that no patients are transferred outside of San Antonio (except patients that specifically request the transfer).

STRAC has created a process called ***HELP***. ***The Hospital Executive Leadership Protocol***. The HELP group can be activated by MEDCOM (800-247-6428, #2) if/when a patient has become stranded in a transferring hospital. The HELP process will put senior leaders from Baptist, Christus, Methodist, SAMMC and UH in a conference bridge so that an appropriate resolution to the problem can be found. **STRAC encourages transferring facilities to utilize their normal referral/transfer processes to the fullest extent.** However, if the San Antonio area hospitals are uniformly denying the patient in transfer, the referring facility can simply call MEDCOM and the HELP group will be notified and will take measures to resolve the issue to ensure the patient isn't flown or ground-transported outside of San Antonio.

Questions or concerns should be directed to Eric Epley, Executive Director, STRAC 210-233-5832 or email at eric.epley@strac.org.

STEMI Management Guidelines for Inter-facility Transfer

Heart Alert Criteria

1. Patients with signs & symptoms of an Acute Coronary Syndrome (ACS)*

---------- ***AND*** ----------

2. ST segment Elevation of 1mm or more in 2 contiguous leads

If your patient does not meet Criteria 1 AND 2, a consult should be done with the receiving ED physician prior to declaring a Heart Alert.

*ACS Symptoms include but are not limited to chest pain/tightness; radiation to back, abdomen, arm(s), neck, jaw or any combination; dyspnea; diaphoresis; nausea/vomiting; fatigue; weakness; palpitations; indigestion; syncope; pulmonary edema.

Fibrinolytic Guidelines

- Confirmed STEMI on 12 lead? → **NO:** patient not in STEMI guideline at this time.
  - ↓ **YES:** Activate "Heart Alert" as early as possible.
- Begin fibrinolytic contraindications checklist immediately
  a. Onset of symptoms <12 hours: administer full dose thrombolytic* and transfer urgently to PCI Center
  b. Onset of symptoms >12 hours: consider thrombolytic and consult with receiving facility

**Fibrin-specific agents preferred: Tenecteplase (TNKase) or Alteplase (tPA)*

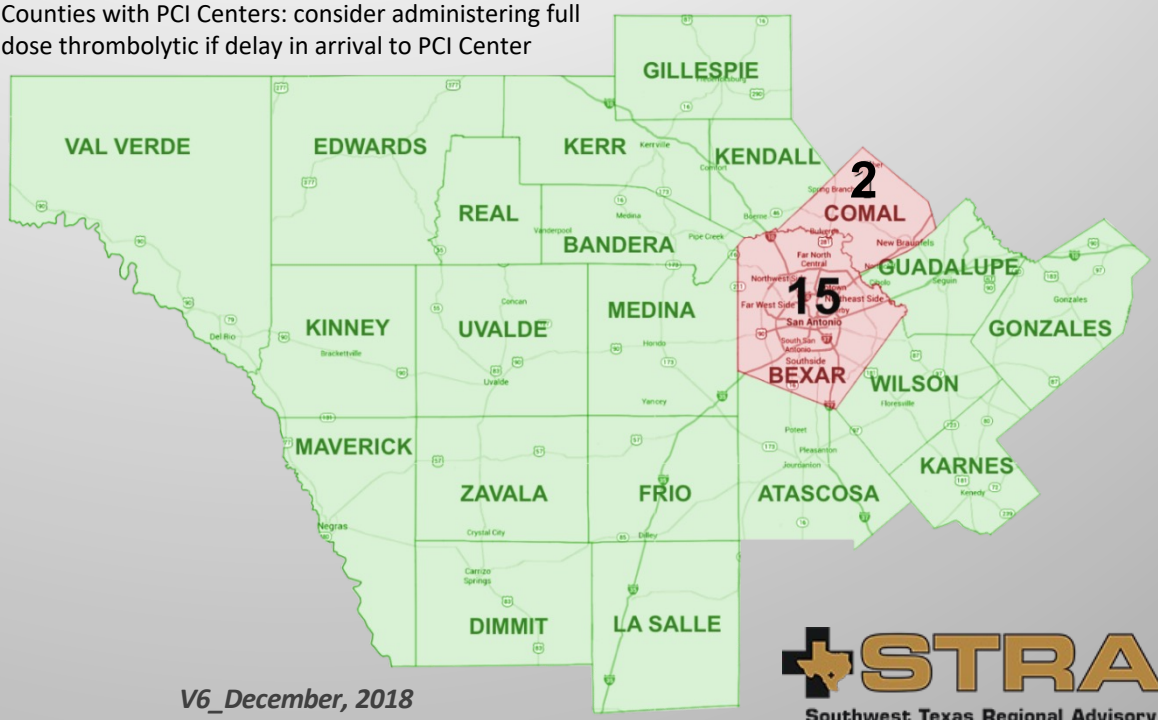
Green County Goal: Door to Fibrinolytic in <30 minutes and urgent transfer to PCI Center

- Counties that do not have a PCI Center: administer full dose thrombolytic

Red County Goal: Door to PCI in <120 minutes

- Counties with PCI Centers: consider administering full dose thrombolytic if delay in arrival to PCI Center

Bexar County PCI Centers
Baptist Medical Center
Christus Santa Rosa Westover Hills
Methodist Hospital
Methodist Stone Oak Hospital
Methodist Texsan Hospital
Metropolitan Methodist Hospital
Mission Trail Baptist
Nort Central Baptist Hospital
Northeast Baptist Hospital
Northeast Methodist Hospital
San Antonio Military Medical Center
St. Luke's Baptist Hospital
University Hospital
Outside Bexar Co PCI Centers
Christus Santa Rosa New Braunfels
Baptist Resolute Hospital (NB)
Peterson Regional (Kerrville)



V6_December, 2018

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REGIONAL NEUROLOGIC ASSESSMENT TOOL FOR INTERFACILITY TRANSFER POST THROMBOLYTICS

v_May, 2021, Final

DATE: _____/_____/_____

TRANSFER HOSPITAL: _____

DESTINATION HOSPITAL: _____

EMS AGENCY: _____ EMS RUN #: _____

(FILL OUT *OR* AFFIX PATIENT STICKER HERE)

PATIENT NAME: _____

AGE: _____ DOB: _____/_____/_____ SEX: _____

MEDICAL RECORD #: _____

ACCOUNT #: _____

LKWT: ___/___/___ ____:____

NOTE: *A 4-point increase from baseline in Total Score should trigger further neurological assessment & notification of MD.* ***STOP*** *infusion immediately, and notify MD if the patient displays any of the following symptoms: headache, severe chest pain, profuse bleeding, flank pain, edema of mouth/ lips/ tongue, or seizures.*

Angioedema: *Look for signs of unilateral or bilateral tongue enlargement q-15min X 2hrs.*

Baseline NIHSS Prior to admin: _____

(weight in kg)

TPA Total Dose: _____ (mg) TPA Waste: _____ (mg/mL)

TPA Bolus: _____ (mg) Bolus Administration Date/Time: ____/____/____ _____:_____

Infusion Administration : ____/____/____ Date _____:_____Time _____Rate (ml/hr)

TNKase: _____ (mg) Administration Date/Time: _____/_____/_____ _____:_____

Verifying RN #1: _____ (either TPA or TNKase)

Verifying RN #2: _____ (either TPA or TNKase)

		TIME	HEART RATE	HEART RHYTHM	BLOOD PRESSURE SBP<180 and DBP< 105	ABBREVIATED NIHSS* MOTOR SCORE RIGHT ARM	LEFT ARM	LOC Questions	LOC Commands	BEST GAZE	EXTINCTION/ INATTENTION	BEST LANGUAGE	TOTAL SCORE	ANY ADDITIONAL SYMPTOMS PRESENT (VISION, DIZZINESS, N/V, HEADACHE, ETC)	ANGIO-EDEMA Y/N	INITIALS
Pre LYTIC					/											
LYTIC Administration	15min				/											
	15min				/											
	15min				/											
	15min				/											
NS Flush		**TPA Infusion Completed:Date/Time** ____/____/____ ____:____				**TPA 50mL NS (Flush at same rate of TPA infusion) Date/Time Started:** ____/____/____ ____:____										
POST LYTIC Q-15min - 1HR	15min				/											
	15min				/											
	15min				/											
	15min				/											
Full NIH		___/___/___ **Date** ____:____**Time** _____ **Full Score**														
Q-30min X 6 HOURS	30min				/											
	30min				/											
	30min				/											
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	30min				/											

Motor Score

0 No drift, arms hold 90 degrees (sitting) or 45 degrees (supine) for full 10 seconds; or leg holds 30 degrees for full 5 seconds.

1 Drift, arm holds 90 degrees (sitting) or 45 degrees (supine), but drifts down before full 10 seconds; or leg holds 30 degrees but drifts down before 5 full seconds, but does not hit bed or other support.

2 Some effort against gravity; arm cannot get to or maintain (if cued) 90 degrees (sitting) or 45 degrees (supine); or leg cannot get to or maintain 30 degrees, drifts down to bed, but has some effort against gravity.

3 No effort against gravity, limb falls.

4 No movement.

5 Amputation; joint fusion

LEVEL OF CONSCIOUSNESS

0 Alert

1 Not alert, arouses with minor stimulation

2 Not alert, arouses with strong, repeated stimulation

3 Responds with reflexes or is unresponsive

DYSARTHRIA

0 Normal

1 Mild to moderate; slurs but can be understood

2 Severe; so slurred it is unintelligible

3 Intubated or other physical barrier

BEST LANGUAGE

0 No aphasia

1 Mild to moderate; some loss but makes conversation with materials

2 Severe aphasia; information exchanged is limited

3 Mute; no usable speech or auditory comprehension

BAR CODE

Initials	Employee ID#	Signature	Initials	Employee ID#	Signature

STRAC
Southwest Texas Regional Advisory Council

REGIONAL NEUROLOGIC ASSESSMENT TOOL FOR INTERFACILITY TRANSFER POST THROMBOLYTIC

v_May, 2021, Final

DATE: _____/_____/_____

TRANSFER HOSPITAL: _____

DESTINATION HOSPITAL: _____

EMS AGENCY: _____ EMS RUN #: _____

(FILL OUT *OR* AFFIX PATIENT STICKER HERE)

PATIENT NAME: _____

AGE: _____ DOB: _____/_____/_____ SEX: _____

MEDICAL RECORD #: _____

ACCOUNT #: _____

NOTE: *A 4-point increase from baseline in Total Score should trigger further neurological assessment & notification of MD.* ***STOP*** *infusion immediately, and notify MD if the patient displays any of the following symptoms: headache, severe chest pain, profuse bleeding, flank pain, edema of mouth/ lips/ tongue, or seizures.*

Angioedema: *Look for signs of unilateral or bilateral tongue enlargement q-15min X 2hrs.*

	DATE ___/___/___	TIME	HEART RATE	HEART RHYTHM	BLOOD PRESSURE SBP<180 and DBP< 105	ABBREVIATED NIHSS*								ANY ADDITIONAL SYMPTOMS PRESENT (VISION, DIZZINESS, N/V, HEADACHE, ETC)	ANGIO-EDEMA Y / N	INITIALS
						MOTOR SCORE				BEST GAZE	EXTINCTION/ INATTENTION	BEST LANGUAGE	TOTAL SCORE			
						RIGHT ARM	LEFT ARM	LOC Questions	LOC Commands							
Q 1-HOUR X 16 HOURS	1 hour				/											
	1 hour				/											
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	1 hour				/											

Motor Score

- **0** No drift, arms hold 90 degrees (sitting) or 45 degrees (supine) for full 10 seconds; or leg holds 30 degrees for full 5 seconds.
- **1** Drift, arm holds 90 degrees (sitting) or 45 degrees (supine), but drifts down before full 10 seconds; or leg holds 30 degrees but drifts down before 5 full seconds, but does not hit bed or other support.
- **2** Some effort against gravity; arm cannot get to or maintain (if cued) 90 degrees (sitting) or 45 degrees (supine); or leg cannot get to or maintain 30 degrees, drifts down to bed, but has some effort against gravity.
- **3** No effort against gravity, limb falls.
- **4** No movement.
- **5** Amputation; joint fusion

LEVEL OF CONSCIOUSNESS

- **0** Alert
- **1** Not alert, arouses with minor stimulation
- **2** Not alert, arouses with strong, repeated stimulation
- **3** Responds with reflexes or is unresponsive

DYSARTHRIA

- **0** Normal
- **1** Mild to moderate; slurs but can be understood
- **2** Severe; so slurred it is unintelligible
- **3** Intubated or other physical barrier

BEST LANGUAGE

- **0** No aphasia
- **1** Mild to moderate; some loss but makes conversation with materials
- **2** Severe aphasia; information exchanged is limited
- **3** Mute; no usable speech or auditory comprehension

Comments:

BAR CODE

Initials	Employee ID#	Signature	Initials	Employee ID#	Signature

REGIONAL GUIDELINES FOR TRANSFER OF ACUTE STROKE PATIENTS

STRAC Southwest Texas Regional Advisory Council

Version_2022_0201

The Regional Guidelines for Transfer of Acute Stroke Patients have been developed by members of the STRAC Regional Stroke Systems Committee which includes Neurologists from Comprehensive and Primary Stroke Centers in the STRAC Region, as well as Stroke Certified Registered Nurses and EMS Representatives. These guidelines may serve to improve the management of quality and safety of acute stroke patients who are transferred.

	ISCHEMIC STROKE		HEMORRHAGIC STROKE
	With Thrombolytic either TPA or TNKase	***Without* Thrombolytic**	**ICH / SAH**
If BP above limits: 1) ***Sending hospital*** initiates antihypertensive medications, 2) ***EMS*** transport monitors and treats BP during transport.	**TRANSFERRING FACILITY** **(SEND AT TIME OF TRANSFER)** ED documentation to include assessments & treatments provided: Last known well time NIHSS prior to Thrombolytic administration Vital signs prior to & every 15 minutes after Lytic administration Thrombolytic (Alteplace or Tenecteplase): Total dose Time of bolus and initiation of infusion Time completed Time of 50cc Normal Saline infusion initiated	**TRANSFERRING FACILITY** **(SEND AT TIME OF TRANSFER)** ED documentation to include assessments & treatments provided: Last known well time NIHSS Vital signs	**TRANSFERRING FACILITY** **(SEND AT TIME OF TRANSFER)** ED documentationto include assessments & treatments provided: Last known well time NIHSS Vital signs Start Reversal of Oral Anticoagulants
	EMS TRANSPORT **(PROVIDED AT TIME OF TRANSFER)** EMS documentation to include assessments & treatments provided: Vital signs: prior to departure **Verify: SBP<180 and DBP<105**	**EMS CRITICAL CARE TRANSPORT** **(PROVIDED AT TIME OF TRANSFER)** EMS documentation to include assesments & treatments provided: Vital signs: prior to departure **Verify: SBP<220 and DBP<110**	**EMS CRITICAL CARE TRANSPORT** **(PROVIDED AT TIME OF TRANSFER)** EMS documentation to include assesments assessments & treatments provided: Vital signs: prior to departure **Verify: SBP<140 and DBP<90**
	Verify Thrombolytic: Total dose Time of bolus and initiation of infusion Time of completion (if complete prior to transport) If Thrombolytic to continue in transport: Verify estimated time of completion *If dose completed enroute, administer 50cc Normal Saline infusion at same rate of IV Alteplase* Document time of Thrombolytic completion and time Normal Saline infusion initiated Vital signs and Neuro assessments every 15 minutes Discontinue Thrombolytic AND follow agency specific medical control guidelines for further instructions: For any acute worsening of neurological condition OR if patient develops new headache, acute hypertension, nausea or vomiting	Vital signs and Neuro assessments every 15 minutes	Vital signs and Neuro assessments every 15 minutes
IF SBP and or DBP above parameters	**IF NO ANTIHYPERTENSIVE MEDICATION STARTED** at sending facility and BP **above *parameters* on two readings 10 minutes apart:** ☐ **Labetolol [Normodyne]** 20mg IV push over 1 minute; may repeat every 20 minutes X 2 doses (maximum dose 300mg). DO NOT give if pulse is less than 65. If Labetolol [Normodyne] ineffective or unavailable initiate: **Nicardipine [Cardene]** IV infusion at 2mg/hr; increase by 2.5mg/hr every 15 (vs 5) minutes (maximum dose 15mg/hr) until goal SBP and/or DBP achieved. If pulse less than 60, turn off drip and follow agency medical control guidelines for further instructions. **IF ANTIHYPERTENSIVE MEDICATION STARTED** at sending facility then adjust as follows: ☐ **If Labetolol [Normodyne] IV infusion:** increase by 2mg/min every 10 minutes (maximum dose 8mg/min) until goal SBP and/or DBP achieved. If pulse is less than 60 turn off drip and follow agency specific medical control guidelines for further instructions. ☐ **If Nicardipine [Cardene] IV infusion:** increase by 2.5mg/hour every 5 minutes (maximum dose 15mg/hour until goal SBP and/or DBP achieved. If pulse is less than 60 turn off drip and follow agency specific medical control guidelines for further instructions. **Ordering Physician signature:** _____ **Ordering Physician contact number:** _____		
	RECEIVING HOSPITAL RN: **(TO RECEIVE AT TIME OF TRANSFER)** Documentation from ***Referring Facilty;*** & Documentation from ***EMS*** to include assessments and treatments provided: Last known well time NIHSS prior to Thromobolytic administration Vital signs prior to and every 15 minutes after Thrombolytic administration Thrombolytic: Total dose Time of bolus and initiation of infusion Time completed Time of 50cc Normal Saline infusion initiated	**RECEIVING HOSPITAL RN:** **(TO RECEIVE AT TIME OF TRANSFER)** Documentation from ***Referring Facility*** & Documentation from ***EMS*** to include assessments & and treatments provided: Last known well time NIHSS Vital Signs	**RECEIVING HOSPITAL RN:** **(TO RECEIVE AT TIME OF TRANSFER)** Documentation from ***Referring Facility*** & Documentation from ***EMS*** to include assessments & and treatments provided: Last known well time NIHSS Vital Signs

STRAC Regional (TSA-P) Trauma Alert Criteria

Southwest Texas Regional Advisory Council

www.strac.org/prehospital

Final_v1_December, 2019

Pedi ≤17	Adult ≥18, <65	Geri ≥65

If *any* Red Criteria met, transport to Level 1 Trauma Center

Pedi ≤17	Adult ≥18, <65	Geri ≥65
R1 Patient not awake and appropriate	**R1** GCS ≤13 due to trauma	**R1** GCS ≤13 or change in baseline due to trauma
R2 Active airway assistance required (ie. more than supplemental O2), or respiratory distress	**R2** Active airway assistance required (ie. more than supplemental O2)	**R2** Active airway assistance required (ie. more than supplemental O2)
R3 Weak carotid/femoral pulse or absent distal pulses	**R3** No radial pulse AND heart rate ≥120	**R3** No radial pulse
R4 BP <70 plus 2X Age (BP <90 age >10)	**R4** BP <90 systolic	**R4** BP <110 systolic
R5 Pelvic instability or Chest wall instability or crepitus	**R5** Pelvic instability or Chest wall instability or crepitus	**R5** Pelvic instability or Chest wall instability or crepitus
R6 Acute paralysis, loss of sensation, or suspected spinal cord injury	**R6** Acute paralysis, loss of sensation, or suspected spinal cord injury	**R6** Acute paralysis, loss of sensation, or suspected spinal cord injury
R7 Amputation proximal to wrist or ankle	**R7** Amputation proximal to wrist or ankle	**R7** Amputation proximal to wrist or ankle
R8 ≥5% BSA partial/full thickness burns	**R8** ≥10% BSA partial/full thickness burns	**R8** ≥5% BSA partial/full thickness burns
R9 Penetrating injury to head (or depressed skull fracture), neck, torso, extremities proximal to elbow or knee, excluding superficial wounds	**R9** Penetrating injury to head (or depressed skull fracture), neck, torso, extremities proximal to elbow or knee, excluding superficial wounds	**R9** Penetrating injury to head (or depressed skull fracture), neck, torso, extremities proximal to elbow or knee, excluding superficial wounds
R10 Crushed, degloved, mangled, or pulseless injured extremity	**R10** Crushed, degloved, mangled, or pulseless injured extremity	**R10** Crushed, degloved, mangled, or pulseless injured extremity
R11 Two or more proximal long bone fracture sites	**R11** Two or more proximal long bone fracture sites	**R11** Two or more proximal long bone fracture sites

Pedi ≤17	Adult ≥18, <65	Geri ≥65

If one Blue Criteria met, transport to L3 or L4 Trauma Center;
***OR*, if two or more Blue Criteria met, transport to L1 or L3 Trauma Center.**

B1 Reliable history of any LOC and/or amnesia	**B1** Reliable loss of consciousness >5 min.	**B1** Reliable loss of consciousness >5 min.
B2	**B2** Sustained respiratory rate ≥30 or ≤10	**B2** Sustained respiratory rate ≥30 or ≤10
B3	**B3** Sustained heart rate ≥120 (w/radial pulse) and BP ≥90 systolic	**B3** Sustained heart rate ≥100
B4	**B4** Best motor response = 5	**B4** Best motor response = 5
B5 Pregnancy >20 weeks	**B5** Pregnancy >20 weeks	**B5**
B6 Single closed long bone fracture site	**B6** Fracture to humerus or femur due to motor vehicle crash	**B6** Fracture to humerus or femur due to motor vehicle crash
B7 Falls >2X child's height or >10 feet	**B7** Fall from ≥20 feet	**B7** Fall from ≥3 feet
B8	**B8**	**B8** **Age ≥65**
B9 Ejection from vehicle (excludes open vehicles)	**B9** Ejection from vehicle (excludes open vehicles)	**B9** Ejection from vehicle (excludes open vehicles)
B10 Driver w/deformed steering wheel	**B10** Driver w/deformed steering wheel	**B10** Driver w/deformed steering wheel
B11 Death in the same vehicle	**B11** Death in same vehicle	**B11** Death in same vehicle
B12 Pedestrian or bicyclist struck; or motorcyclist thrown, run over, or w/significant impact	**B12** Pedestrian or bicyclist struck; or motorcyclist thrown, run over, or w/significant impact	**B12** Pedestrian or bicyclist struck; or motorcyclist thrown, run over, or w/significant impact
B13	**B13** Patient on anticoagulant w/suspected TBI*	**B13** Patient on anticoagulant w/suspected TBI* (includes daily ASA use)
B14 Weight <10Kg (<22lbs) or RED or PURPLE Broselow Tape Zone	**B14**	**B14**
B15 Suspicion of non-accidental trauma	**B15**	**B15** Significant injuries to two or more body-systems

Paramedic intuition may serve as Red/Blue Criteria override.

***Signs/Symptoms of TBI include:**

- ❑ *Witnessed or reported LOC*
- ❑ *Dizziness, vertigo, or 'lightheadedness'*
- ❑ *Nausea or vomiting*
- ❑ *Changes in vision, photophobia or double vision*
- ❑ *Ataxia or new problems walking, standing, or maintaining balance*
- ❑ *Change in mental status, level of functioning or speech quality*

STRAC
Southwest Texas Regional Advisory Council

Red/Blue Trauma Criteria
PEDI (≤17 years of age)

Admin Use Only
MEDCOM Case #
Time MEDCOM Notified

MEDCOM should be activated by calling 210-233-5815 within 30min of arrival to ED when Trauma Alert (1-R or 2-B criteria)

Date:

Patient Name:

or Place Patient Sticker Here

Time of Injury:

Time of ED Admit:

Time MEDCOM Notified:

Circle all Red/Blue Criteria that apply **(or check box patient does not meet Red/Blue Criteria)**

FAX Red/Blue Criteria & Face Sheet to: (210) 233-5822 or (800) 418-4262

RED CRITERIA		BLUE CRITERIA	
R1	Patient not awake and appropriate	**B1**	Reliable history of any LOC and/or amnesia
R2	ACTIVE airway assistance required (i.e., more than supplemental O2), or respiratory distress	**B5**	Pregnancy > 20 weeks
R3	Weak carotid/femoral pulse or absent distal pulses	**B6**	Single closed long bone fracture site
R4	BP < 70 plus 2X Age (BP < 90 age > 10)	**B7**	Falls > 2X the child's height or > 10 feet
R5	Pelvic instability or chest wall instability or crepitus	**B9**	Ejection from vehicle (excludes open vehicles)
R6	Acute paralysis, loss of sensation, or suspected spinal cord injury	**B10**	Driver with deformed steering wheel
R7	Amputation proximal to the wrist or ankle	**B11**	Death in same vehicle
R8	≥ 5% BSA partial/full thickness burns	**B12**	Pedestrian or bicyclist struck; or motorcyclist thrown, run over, or with significant impact
R9	Penetrating injury to head (or depressed skull fracture), neck, torso, extremities proximal to elbow or knee (excluding superficial wounds)	**B14**	Weight < 10kg (< 22lbs) or RED or PURPLE Broselow Tape Zone
R10	Crushed, degloved, mangled, or pulseless extremity	**B15**	Suspicion of non-accidental trauma
R11	Two or more proximal long bone fracture sites		

☐ ***Patient does not meet Red or Blue Criteria, services not available at transferring facility.***

Services Needed: ENT OMF Ophthalmology Other:_____

The following information should be discussed during Physician to Physician report:

M 1. Age/Sex
2. **Mechanism** of injury

I 3. **Injuries** (list head to toe); or **Inspections** (include pertinent medical history like use of anticoagulants)

S 4. Vital **Signs**

T 5. **Treatment**

Facility Information for Memorandum of Transfer

UNIVERSITY HOSPITAL
4502 Medical Drive
San Antonio, TX 78229
University Hospital **Patient Report: (210) 743-5652**

SAN ANTONIO MILITARY MEDICAL CENTER
3551 Roger Brooke Drive
Fort Sam Houston, TX 78234 (San Antonio)
SAMMC **Patient Report: (210) 916-0808**

Rev 11/21, 11/12/2021

STRAC
Southwest Texas Regional Advisory Council

Red/Blue Trauma Criteria
ADULT (≥18 to <65 years of age)

Admin Use Only
MEDCOM Case #
Time MEDCOM Notified

MEDCOM should be activated by calling 210-233-5815 within 30min of arrival to ED when Trauma Alert (1-R or 2-B criteria)

Date: _____

Patient Name: _____

or Place Patient Sticker Here

Time of Injury: _____

Time of ED Admit: _____

Time MEDCOM Notified: _____

Circle all Red/Blue Criteria that apply **(or check box patient does not meet Red/Blue Criteria)**

FAX Red/Blue Criteria & Face Sheet to: (210) 233-5822 or (800) 418-4262

RED CRITERIA		BLUE CRITERIA	
R1	GCS ≤ 13 due to trauma	**B1**	Reliable loss of consciousness > 5 minutes
R2	ACTIVE airway assistance required (i.e. more than supplemental O2 without airway adjunct)	**B2**	Sustained respiratory rate ≥ 30 or ≤ 10
R3	No radial pulse AND heart rate ≥ 120	**B3**	Sustained heart rate ≥ 120 with radial pulse and BP ≥ 90 systolic
R4	BP < 90 systolic	**B4**	Best motor response = 5
R5	Pelvic instability or chest wall instability or crepitus	**B5**	Pregnancy > 20 weeks
R6	Acute paralysis, loss of sensation, or suspected spinal cord injury	**B6**	Fracture to humerus or femur due to motor vehicle crash
R7	Amputation proximal to wrist or ankle	**B7**	Fall from ≥ 20 feet
R8	≥ 10% BSA partial/full thickness burns	**B9**	Ejection from vehicle (excludes open vehicles)
R9	Penetrating injury to head (or depressed skull fracture), neck, torso, extremities proximal to elbow or knee (excluding superficial wounds)	**B10**	Driver with deformed steering wheel
R10	Crushed, degloved, mangled or pulseless injured extremity	**B11**	Death in same vehicle
R11	Two or more proximal long bone fractures sites	**B12**	Pedestrian or bicyclist struck; or motorcyclist thrown, run over, or with significant impact
		B13	Patient on anticoagulant with a suspected TBI

☐ ***Patient does not meet Red or Blue Criteria, services not available at transferring facility.***

Services Needed: ENT OMF Ophthalmology Other:_____

The following information should be discussed during Physician to Physician report:

M 1. Age/Sex
2. **Mechanism** of injury

I 3. **Injuries** (list head to toe); or **Inspections** (include pertinent medical history like use of anticoagulants)

S 4. Vital **Signs**

T 5. **Treatment**

Facility Information for Memorandum of Transfer

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Rev 11/21, 11/12/2021

STRAC
Southwest Texas Regional Advisory Council

Red/Blue Trauma Criteria
GERI (≥ 65 years of age)

Admin Use Only
MEDCOM Case #
Time MEDCOM Notified

MEDCOM should be activated by calling 210-233-5815 within 30min of arrival to ED when Trauma Alert (1-R or 2-B criteria)

Date: _____

Patient Name: _____ **Time of Injury:** _____

or Place Patient Sticker Here

Time of ED Admit: _____

Time MEDCOM Notified: _____

Circle all Red/Blue Criteria that apply **(or check box patient does not meet Red/Blue Criteria)**

FAX Red/Blue Criteria & Face Sheet to: (210) 233-5822 or (800) 418-4262

RED CRITERIA		BLUE CRITERIA	
R1	GCS ≤13 or change in baseline due to trauma	**B1**	Reliable loss of consciousness >5 minutes
R2	ACTIVE airway assistance required (i.e. more than supplemental O2 without airway adjunct)	**B2**	Sustained respiratory rate ≥30 or ≤10
R3	No radial pulse	**B3**	Sustained heart rate ≥100
R4	BP <110 systolic	**B4**	Best motor response = 5
R5	Pelvic instability or chest wall instability or crepitus	**B6**	Fracture to humerus or femur due to motor vehicle crash
R6	Acute paralysis, loss of sensation, or suspected spinal cord injury	**B7**	Fall from ≥3 feet
R7	Amputation proximal to wrist or ankle	**B8**	Age ≥65
R8	≥5% BSA partial full/thickness burns	**B9**	Ejection from vehicle (excludes open vehicles)
R9	Penetrating injury to head (or depressed skull fracture), neck, torso, extremities proximal to elbow or knee (excluding superficial wounds)	**B10**	Driver with deformed steering wheel
R10	Crushed, degloved, mangled or pulseless injured extremity	**B11**	Death in same vehicle
R11	Two or more proximal long bone fractures sites	**B12**	Pedestrian or bicyclist struck; or motorcyclist thrown, run over, or with significant impact
		B13	Patient on anticoagulant with a suspected TBI*(includes daily ASA use)
		B15	Significant injuries to two or more body-systems

☐ ***Patient does not meet Red or Blue Criteria, services not available at transferring facility.***

Services Needed: ENT OMF Ophthalmology Other:_____

The following information should be discussed during Physician to Physician report:

M 1. Age/Sex
2. **Mechanism** of injury
I 3. **Injuries** (list head to toe); or **Inspections** (include pertinent medical history like use of anticoagulants)
S 4. Vital **Signs**
T 5. **Treatment**

Facility Information for Memorandum of Transfer

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Rev 11/21, 11/12/2021

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MEDCOM Transfer Process to the USA Institute for Surgical Research (USAISR) Burn Unit for patients with life/limb threatening dermatological conditions (Stevens-Johnson Syndrome (SJS), Toxic Epidermal Necrolysis Syndrome (TENS), etc.).

v_October 2019, Final

Requests to MEDCOM for inter-facility transfer of patients with suspected/confirmed SJS and/or TENS will follow the process outlined in this document. The goal of the process is to secure transfer of this patient population to a facility best capable of providing optimal care. While the volume of these patients is relatively low (appropriately 36/year), they can be among the most challenging to transfer.

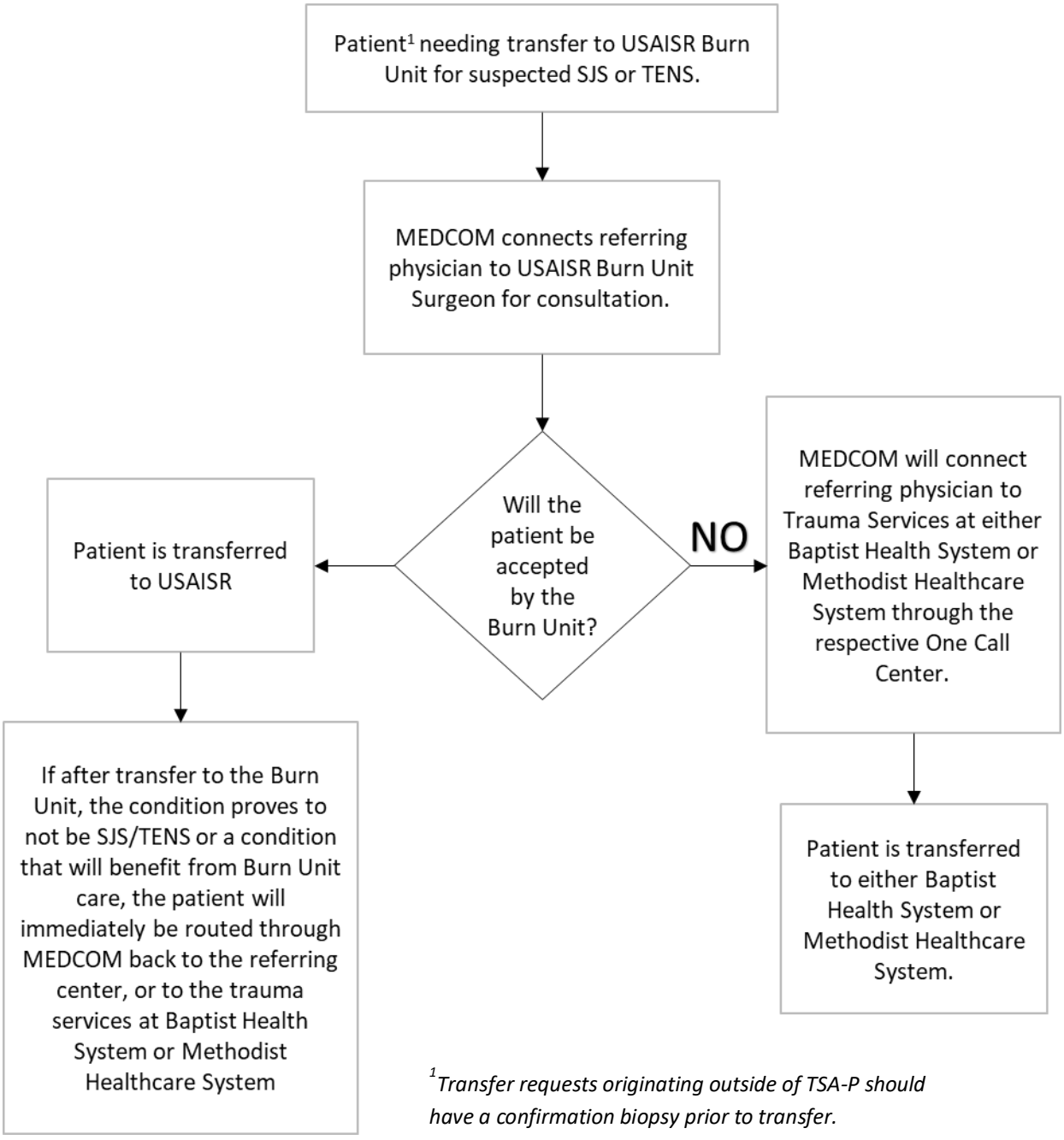
The USAISR would like to care for patients with confirmed (Biopsy proven) SJS/TENS. It is recognized that transferring facilities may not have this capability readily available. In order to facilitate the care of these patients and the USAISR Burn Surgeon does not identify clinical features consistent with SJS/TENS, Methodist and North Central Baptist Trauma Services will assist in the confirmation and facilitate transfer as required. The MEDCOM Advisory Group (MAG), with participation from UH and SAMMC Trauma Medical Directors, the ISR Burn Unit Medical Director, and other committee members have developed this protocol to provide guidance and standardization for transfers of patients with SJS and/or TENS.

These are the functional steps for the success of this protocol:

1. USAISR Burn Unit will receive the initial consultation request and evaluate each transfer request on its own merits with the transferring physician. Patients originating outside of TSA-P should have a confirmation biopsy prior to transfer.
2. If in the opinion of the Burn Unit surgeon: the patient has biopsy confirmed or clinical symptoms consistent with SJS/TENS where biopsy is not possible, the patient will be routed to the Burn Unit at SAMMC. If after transfer to the Burn Unit, the condition proves to not be SJS/TENS or a condition that will benefit from Burn Unit care, the patient will immediately be routed through MEDCOM back to the referring center, or to the trauma services at Baptist Health System or Methodist Healthcare System.
    a. USAISR should contact MEDCOM to initiate transfer to L3
    b. MEDCOM should determine the initial facility (that originally transferred to USAISR); if MHS then initiate transfer to Methodist Hospital; all others initiate transfer to North Central Baptist.
3. The patient does not have signs and symptoms consistent with SJS/TENS or a condition that will benefit from Burn Unit Care, Methodist and North Central Baptist Trauma Services agree to accept patient in transfer through MEDCOM. If at any point, the patient's condition transforms to one of tissue loss, the patient will be routed through MEDCOM for the Burn Unit transfer process above.

For 24-hour help contact MEDCOM at (210) 233-5815. Questions or concerns regarding this process can be directed to Eric Epley, Executive Director, STRAC, at eric.epley@strac.org or (210) 602-4322.

MEDCOM Transfer Process for SJS/TENS (suspected or confirmed)



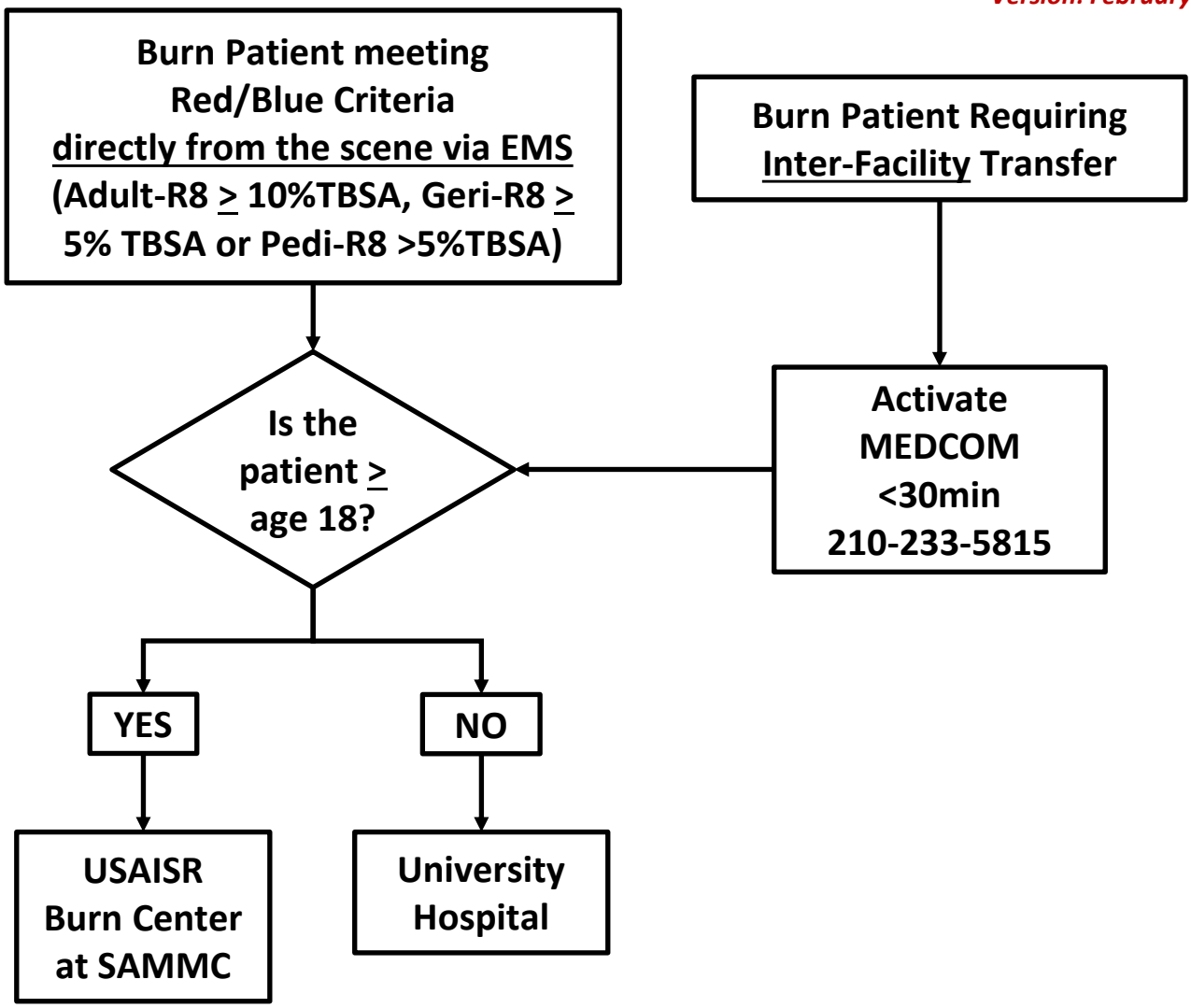
[1] *Transfer requests originating outside of TSA-P should have a confirmation biopsy prior to transfer.*

Southwest Texas Regional Advisory Council (STRAC)
7500 Hwy 90 West, Suite 200, San Antonio, TX 78227
210.233.5850 *www.strac.org*
April, 2013; June, 2015; October, 2016; Revised October, 2017; Revised October, 2019_Final

STRAC
Southwest Texas Regional Advisory Council

Regional Burn Transfer and EMS Scene Transport Algorithm

Version: February 2022



If Local Burn or Trauma Centers are unable to accept the patient, MEDCOM (210) 233-5815 will assist coordination and/or provide information for other State Burn Resources.

Adult Only:	Adult & Pediatric:
UTMB, Galveston (800) 962-3648	Parkland, Dallas (214) 590-6690
Hermann Hospital, Houston (713) 704-2500	UMC, Lubbock (800) 345-9011

For a PDF downloadable copy of the Regional Burn Transfer and EMS Scene Transport Algorithm, and Red/Blue Trauma Alert Criteria, visit: www.strac.org/trauma or https://usaisr.amedd.army.mil/index.cfm/burn_center/community for Community Resources and General Information

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Southwest Texas Regional Advisory Council

MEDCOM 24/7 (210) 233-5815

NECROTIZING SOFT TISSUE INFECTION (NSTI)

MEDCOM, with support from University Hospital, the US Army Institute of Surgical Research (USAISR), and Methodist Hospital, can facilitate rapid inter-facility transfers of Necrotizing Soft Tissue Infection (NSTI) similar to critical trauma transfers. NSTI can be a rapidly progressive, life-threatening infection, particularly in the immunocompromised population including diabetic patients. Early recognition and management of NSTI is essential to optimal patient outcomes and should be considered a surgical emergency.

MEDCOM will facilitate consult and transfer to one of the three participating facilities. NSTI is a clinical diagnosis based on patient risk factors and physical examination (fever, shock physiology, severe pain out of proportion, rapidly progressing erythema, hemorrhagic bullae, skin necrosis, and foul-smelling drainage).

Criteria for NSTI consultation are **ANY** of the following:

1) Radiologic evidence supporting diagnosis of necrotizing soft tissue infection.
2) High degree of clinical suspicion for necrotizing soft tissue infection.
3) LRINEC Score > 5 (see below). ***(Delayed access to the necessary lab values for the LRINEC score should not delay contacting MEDCOM)***

- **A diagnosis of NSTI is a surgical emergency and REQUIRES emergent surgical debridement prior to transport whenever possible. Delaying debridement for many hours to facilitate transfer may be life threatening.**

- Prior to transport:
    1) Obtain blood and wound cultures.
    2) Initiate broad spectrum antibiotic coverage.
    3) Initiate resuscitation for shock.
    4) Surgical debridement if possible.

Laboratory Risk Indicators for Necrotizing Soft Tissue Infections (LRINEC)

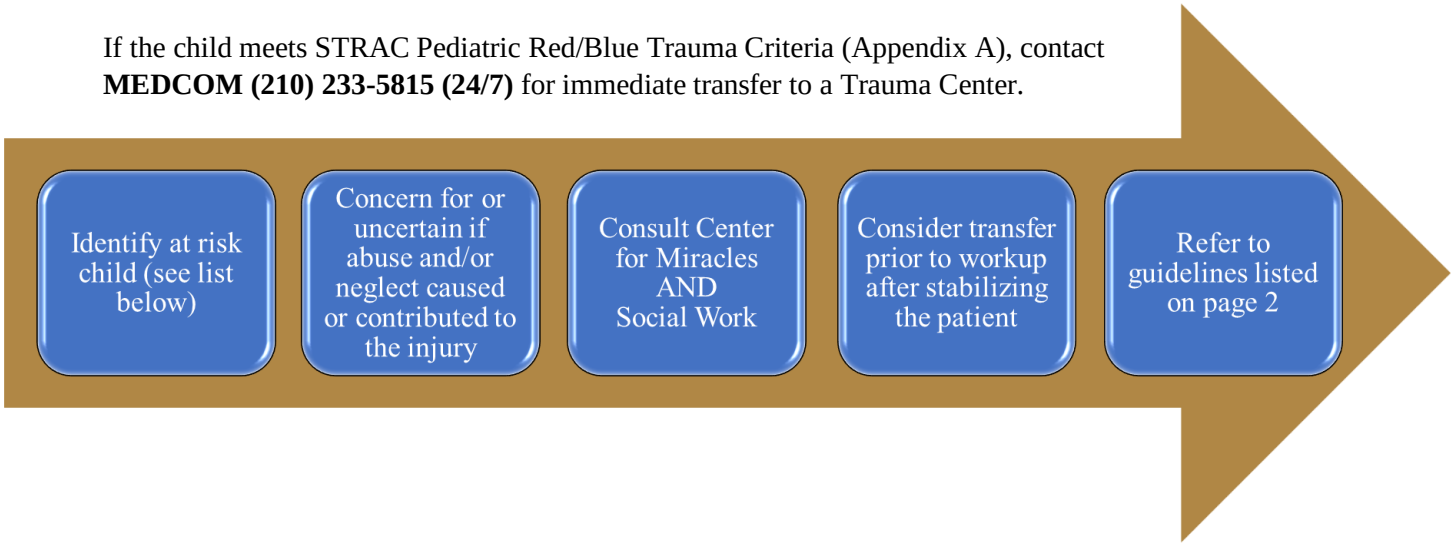
Lab	Values	LRINEC Score Pts
C-reactive Protein (mg/L)	< 15 (150 mg/L)	0
	≥ 15 (150 mg/L)	4
WBC (x10,000/µL)	< 15	0
	15-25	1
	> 25	2
Hemoglobin (g/dL)	> 13.5	0
	11-13.5	1
	< 11	2
Sodium (mEq/L)	≥ 135	0
	< 135	2
Creatinine (mg/dL)	≤ 1.6	0
	>1.6	2
Glucose (mg/dL)	≤ 180	0
	> 180	1

Risk Category	LRINEC Score Pts	Probability of NSTI %
Low	≤ 5	< 50%
Intermediate	6-7	50-75%
High	≥ 8	> 75%

STRAC Regional Pediatric Committee
Child Maltreatment Guidelines
V5, March 2021

Purpose: Identify children who have sustained non-accidental trauma and/or whose injuries were caused by neglect.

If the child meets STRAC Pediatric Red/Blue Trauma Criteria (Appendix A), contact **MEDCOM (210) 233-5815 (24/7)** for immediate transfer to a Trauma Center.



This list is not all inclusive and providers are encouraged to contact the **Center for Miracles (210) 612-8271** if questions or are unsure if an abuse/neglect evaluation is indicated.

- Any unexplained death <18 years of age
- Any unexplained serious injury to a child ≤3 years of age (nonverbal children)
- Any fatal or near fatal submersion or asphyxiation event
- Any fracture in any child with an inconsistent or unexplained mechanism
- Any bruising in a non-mobile infant or in a child of any age that is patterned, extensive, or located on the ears, neck, or torso including the buttocks and genital region
- Any frenulum tears in a non-ambulatory child
- Any burn in children ≤3 or unexplained burns of any age
- Any unexplained skull fracture or intracranial injury in a child ≤5 years of age
- Any retinal hemorrhage in trauma patients
- Any unexplained solid organ or internal injury
- Any sexually transmitted disease in a pre-pubertal child
- Any child ≤12 years of age with a positive screen for drug/ETOH and/or recent exposure to drugs in the home
- A primary caregiver who appears to be intoxicated or under the influence of a drug and/or ETOH OR with a positive screen for drugs at the time that the child was injured
- Any delay in seeking medical care for a serious injury or condition
- Any child with concern for non-organic failure to thrive
- Any child with an injury that occurred during an incident of family violence
- Any child with concern for caregiver fabricated illness

A training video on this guideline can be found at http://www.brainshark.com/strac/nat

WORK-UP FOR DIAGNOSIS AND TREATMENT OF SUSPECTED CHILD MALTREATMENT: *Recommendations for work-up and/or transfer are not all inclusive and providers are encouraged to contact the* **Center for Miracles (210) 612-8271** *if they have questions or are unsure if an abuse/neglect evaluation is indicated.*

1. **Complete head to toe physical examination to include in and around ears, mouth, genitals, and buttocks.** Photo document any injuries including burns if available per local policy.
2. **File report with Child Protective Services at 1-800-252-5400**. Consider also reporting directly to Law Enforcement for egregious injuries, suspected sexual abuse, or if child or staff safety are at risk.
3. **Coagulation Screen (with nonpatterned or extensive bruising or intracranial hemorrhage)**: CBC, PTT, INR (PT if available).
4. **Abdominal Trauma Screen (with abdominal bruising, abdominal symptoms, or other concerns for intra-abdominal injury):** CMP (including ALT, AST, Amylase, Lipase)
5. **Bone Health Screen (with multiple fractures or abnormal bone appearance):** CMP (including Ca and Alkaline Phosphatase), Phosphorus, 25-OH Vitamin D.
6. **Complete Skeletal Survey** if 24 months of age or less. Consider in older children if egregious injuries, child is nonverbal, or other clinical indications. If patient condition and time permits, study should be performed in Radiology.
7. **CT Scan of Head without Contrast and with 3D Reconstruction** if 6 months of age or less, whether symptomatic or not. CT scan of head without contrast in older children if CNS symptoms, multi-system trauma or other clinical indications.
8. **MRI Brain and C-Spine without Contrast** if CT scan of the head with abnormal intracranial findings. If possible, wait to obtain until 48-72 hours after the initial head CT.
9. **CT Abdomen/Pelvis with IV Contrast** if abdominal trauma suspected, polytrauma, or if ALT or AST are >80 (most sensitive screen for abdominal trauma in the absence of other signs). Should be performed after CT Head (if CT Head is indicated).
10. **CT Chest with IV Contrast** if major chest blunt/penetrating trauma is suspected.
11. **Ophthalmology Consultation** ***(recommended within 24-72 hours)*** if intracranial blood is found on radiographic imaging, **AND THE PATIENT HAS BEEN CLEARED BY NEUROSURGERY FOR PUPILLARY DILATION.** Request photo documentation of positive findings.
12. **Consults to Social Work and Center for Miracles (210) 612-8271.** Consider mental health evaluation for children 5 years of age and older.
13. **If Suspected Sexual Assault (last contact within 120 hours):** contact the Sexual Assault Nurse Examiner (SANE) team. If the last known sexual contact exceeds 120 hours, make a report to CPS and Law Enforcement. Providers may contact the Center for Miracles (210) 612-8271 with any questions.

APPENDIX A
STRAC Regional (TSA-P) Red/Blue Trauma Alert Criteria for Pediatric Patients 17 Years of Age and Under

If any RED CRITERIA met, transport to Level I Trauma Center:

RED CRITERIA

- Patient not awake and appropriate
- Active airway assistance required (ie. more than supplemental O2), or respiratory distress
- Weak carotid/femoral pulse or absent distal pulses
- BP <70 plus 2X Age (BP <90 age >10)
- Pelvic instability or Chest wall instability or crepitus
- Acute paralysis, loss of sensation, or suspected spinal cord injury
- Amputation proximal to wrist or ankle
- ≥5% BSA partial/full thickness burns
- Penetrating injury to head (or depressed skull fracture), neck, torso, extremities proximal to elbow or knee, excluding superficial wounds
- Crushed, degloved, mangled, or pulseless injured extremity
- Two or more proximal long bone fracture sites

If one BLUE CRITERIA met, transport to Level III or Level IV Trauma Center; or if two or more BLUE CRITERIA met, transport to Level I or Level III Trauma Center:

BLUE CRITERIA

- Reliable history of any LOC and/or amnesia
- Pregnancy >20 weeks
- Single closed long bone fracture site
- Falls >2X child's height or >10 feet
- Ejection from vehicle (excludes open vehicles)
- Driver w/deformed steering wheel
- Death in the same vehicle
- Pedestrian or bicyclist struck; or motorcyclist thrown, run over, or w/significant impact
- Weight <10Kg (<22lbs) or RED or PURPLE Broselow Tape Zone
- Suspicion of non-accidental trauma

NOTE: Paramedic intuition may serve as Red/Blue Criteria override.

Signs and Symptoms of Traumatic Brain Injury (TBI) include:

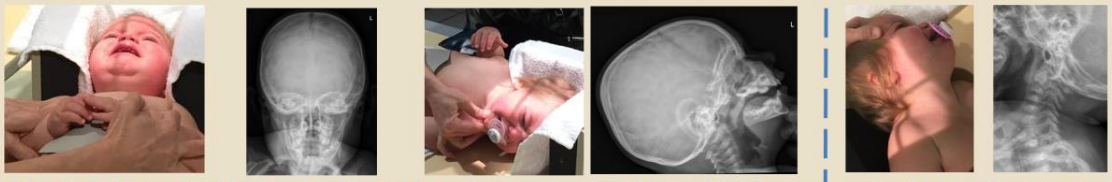
- Witnessed or reported LOC
- Dizziness, vertigo, or 'lightheadedness'
- Nausea or vomiting
- Changes in vision, photophobia, or double vision
- Ataxia or new problems walking, standing, or maintaining balance
- Change in mental status, level of functioning, or speech quality

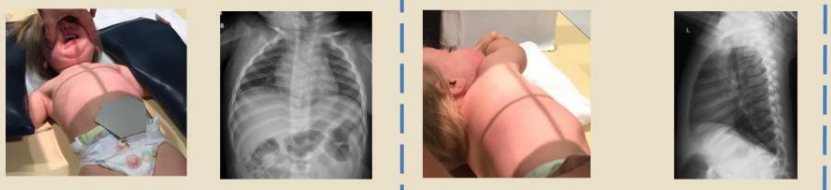
Attachment: Skeletal Surveys for Suspected Child Abuse, adapted from Riley Hospital for Children at Indiana University Health **https://www.rileychildrens.org/**

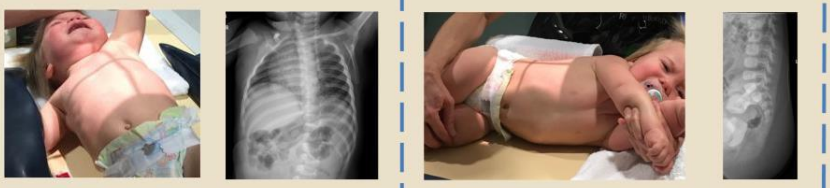
Skeletal Surveys for Suspected Child Abuse

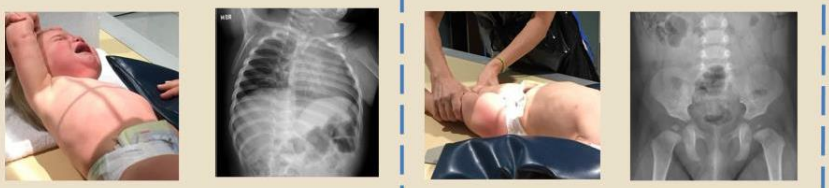
Guidance for Following ACR-SPR Practice

21 Radiographs - the Minimum Required



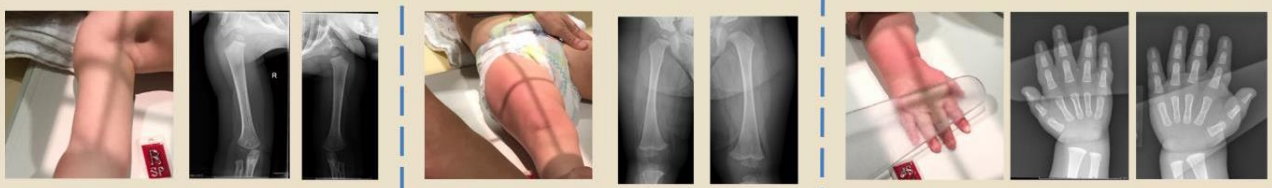


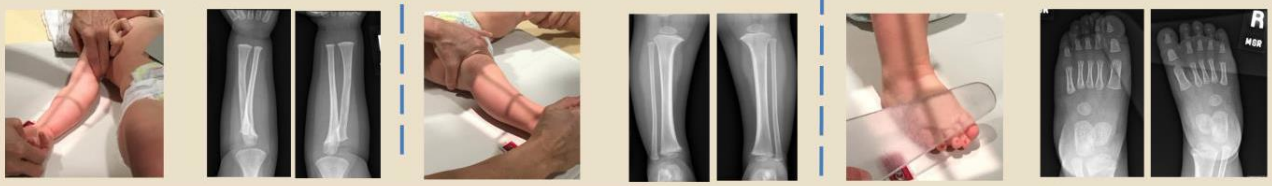




Skeletal survey (number of X-rays)

Skull (2) Frontal and lateral
Cervical Spine (1) Lateral
Thorax (4) AP, lateral, right and left obliques
Lumbosacral Spine (1) Lateral
Pelvis (1) AP
Humeri (2) AP
Forearms (2) AP
Hands (2) PA
Femurs (2) AP
Lower Legs (2) AP
Feet (2) AP





Points to Remember

1. Proper technique
   > High resolution while optimizing dose
2. Positioning
3. Collimation
4. Image identification
5. Restraining methods
6. Patient shielding

Working together to improve performance of Skeletal Surveys for suspected Non-Accidental Trauma

Adapted from Riley Hospital for Children at Indiana University Health https://www.rileychildrens.org

STRAC
Southwest Texas Regional Advisory Council

Regional Clinical Imaging Guidelines: Pediatric Blunt Trauma

If any Red/Blue Criteria are met, refer to STRAC Pediatric Trauma Red/Blue Criteria for Transfer Guidelines

PEDIATRIC CHEST

For concerns of ABUSE refer to the Regional Child Maltreatment Guidelines

Does the Patient meet RED/BLUE Criteria?

→ **YES** → MEDCOM (210) 233-5815

NO

Meets Screening Criteria:

- GCS <15
- External signs of trauma
- Numbness/weakness
- Chest pain or TTP
- Respiratory distress
- O2 requirement

→ **YES** → **CXR** → **Abnormal**

→ **NO** → **No Chest imaging indicated**

Regional Clinical Imaging Guidelines: Pediatric Blunt Trauma

If any Red/Blue Criteria are met, refer to STRAC Pediatric Trauma Red/Blue Criteria for Transfer Guidelines

PEDIATRIC ABDOMEN AND CHEST

For concerns of ABUSE refer to the Regional Child Maltreatment Guidelines

Does the Patient meet RED/BLUE Criteria?

YES → MEDCOM (210) 233-5815

NO

One or more is present:
- Seatbelt sign
- Other external trauma findings
- Positive FAST
- Unclear etiology for fluid/blood requirements

YES

NO

CT not indicated

***BUT* has Abdominal Tenderness w/o Superficial Injury:**
- Draw Labs
- Control Pain
- Repeat Exam

- **AST > 200 or ALT > 125**
- **Elevated Lipase**
- **Gross Hematuria or UA RBC >50**
- **Unexplained abnormal H&H**

CT Abd/Pelvis w/ IV contrast (if does not delay transfer)

Abnormal →

Regional Clinical Imaging Guidelines: Pediatric Blunt Trauma

Southwest Texas Regional Advisory Council

If any Red/Blue Criteria are met, refer to STRAC Pediatric Trauma Red/Blue Criteria for Transfer Guidelines

PEDIATRIC CERVICAL SPINE

For concerns of ABUSE refer to the Regional Child Maltreatment Guidelines

Does the Patient meet RED/BLUE Criteria?

→ **YES** → MEDCOM (210) 233-5815

NO → **Meets Screening Criteria:**

- GCS 15
- No numbness/ weakness
- No AMS
- No Neuro deficit

→ **NO** → **Maintain C-spine precautions** →

YES

PE Findings:

- Midline TTP
- Pain with active ROM

→ **YES** → **2 View C-Spine Films**

- TTP or Pain only

→ **Abnormal** →

NO → **Clear C-spine**

Normal → **Treat Pain Repeat Examination**

→ **Normal**

→ **Mild C-Spine Tenderness** → Consider discharge in C-collar with follow-up

Regional Clinical Imaging Guidelines: Pediatric Blunt Trauma

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PEDIATRIC HEAD

Age < 2 years

For concerns of ABUSE refer to the Regional Child Maltreatment Guidelines

Does the Patient meet RED/BLUE Criteria?

YES → MEDCOM (210) 233-5815

NO

Does patient have ANY of the following, *BUT* does not meet RED/BLUE Criteria?

- GCS < 15
- Palpable skull fracture injury
- Altered Mental Status (AMS)
- Abnormal neurologic PE findings
- Bulging fontanel
- Seizure activity following

NO → **CT not indicated**

***BUT* presents with:**

- Emesis
- LOC ≥ 5 seconds
- Parent report of behavior change
- Scalp hematoma (excluding frontal)
- High mechanism injury*

Observation vs. CT (shared decision making)

Observation 4 hrs from time of injury; CT if symptoms worsen

Provider experience Parent preference

YES

CT Head w/o contrast → **Abnormal**

*Fall> 3', MVC w/ rollover, ejection, fatality, ped/bicyclist struck w/o helmet, struck by high-impact object

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PEDIATRIC HEAD

Age ≥ 2 years - 17

For concerns of ABUSE refer to the Regional Child Maltreatment Guidelines

Does the Patient meet RED/BLUE Criteria?

YES → MEDCOM (210) 233-5815

NO → **Does patient have ANY of the following, *BUT* does not meet RED/BLUE Criteria?**

- GCS < 15
- Basilar skull fracture signs
- AltFocal neurologic findings
- Altered Mental Status (AMS)

YES → **CT Head w/o Contrast**

- **Abnormal** → 

- **CT Not Indicated**

NO → **BUT presents with:**

- Emesis
- LOC ≥ 5 seconds
- Severe headache
- High mechanism injury**

→ **Observation vs. CT (shared decision making)**

Observe 4 hrs from time of injury; CT if symptoms worsen

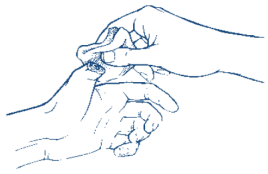
← **Provider experience**
Parent preference

***Fall> 5', MVC w/ rollover, ejection, fatality, ped/bicyclist struck w/o helmet, struck by high-impact object

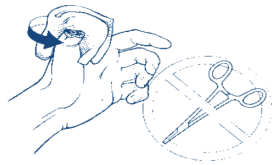
EMERGENCY MANAGEMENT OF APMUTATIONS & SEVERE INJURIES TO THE UPPER EXTREMITIES

1. **REASSURE:** Reassure the patient that there is adequate time for assessment and treatment, but make no promises or statement concerning advisability or possibility of successful replantation or ultimate outcome.
2. **ARRANGE TRANSPORTATION:** If the patient is more than 3 hours by ground from San Antonio, or if the amputation is at the wrist level or above, air transportation may be necessary after consultation with the hand surgeon on call.
3. **TREAT FOR TETANUS:** Treat for tetanus prophylaxis and administer first generation cephalosporin if the patient is not allergic.

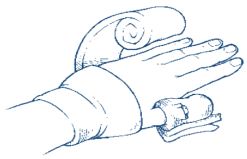
AMPUTATION STUMP



Gently clean the amputation stump with saline soaked sponge.



Apply saline soaked gauze sponge to the stump. **Do not** clamp or tie bleeding vessels.

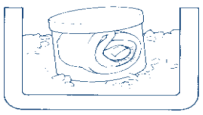


To control bleeding, elevate amputation stump and wrap with a compressive dressing.

AMPUTATION PART

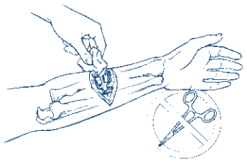
Gently remove loose debris with saline soaked sponge.

Place the amputated part in a saline soaked gauze sponge. With the part wrapped in gauze, place in a sterile container.

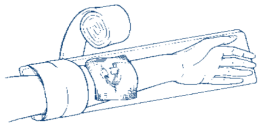


Place the sterile container in ice (not dry ice) for transportation. The amputated part should not be put directly in crushed ice, but only in container.

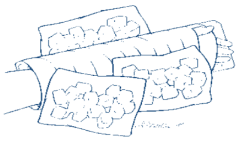
PARTIAL AMPUTATION



Gently clean with saline soaked gauze. Do not clamp or tie bleeding vessels.



Support the injured extremity by splinting and wrapping with a compressive dressing.



If there is no circulation beyond the wound, pack ice around the injured extremity for transport.

ISOLATED HAND INJURY ALGORITHM

STRAC Guidelines for Significant Hand injury transfer and evaluation by a Hand Surgery Specialist.

Is the injury isolated and distal to elbow?

- NO → Local General Orthopedic Surgeon Outpatient evaluation or next-day referral to outpatient hand surgery clinic (as appropriate).
- YES → Has injury resulted in:
  1. No capillary refill? OR
  2. No Doppler signal in digit? OR
  3. Complete, clean-cut amputation proximal to DIP?

  - NO → Local General Orthopedic Surgeon Outpatient evaluation or next-day referral to outpatient hand surgery clinic (as appropriate).
  - YES → Is injury due to crush or avulsion?
    - YES → Consult Hand Surgery Specialist
    - NO → Does or will the patient meet the following criteria?
      1. Thumb OR
      2. Child (<16) OR
      3. Multiple Digits

      - NO → Local General Orthopedic Surgeon Outpatient evaluation or next-day referral to outpatient hand surgery clinic (as appropriate).
      - YES → Consult Hand Surgery Specialist

Protocol is a guideline only and is not a substitute for clinical judgement. **Only the hand surgery specialist will make surgical decisions.** Dress wound with saline soaked cloth or equivalent.

MEDCOM
(210) 233-5815

The Hand Center
(210) 575-2368
(Methodist Patient Placement Center)

STRAC
Southwest Texas Regional Advisory Council

Local Hand Specialist
Name/Phone: