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Applicability Erlanger Health -
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Trauma Neurosurgical Consult Required Response Times and Encumbered Contingency Plan

1. Policy Statement:

To develop and provide a systematic and safe approach to the care of the adult trauma patient who requires neurosurgical consultation or neurosurgical intervention and to ensure neuro-trauma care is continuously available for all TBI and spinal cord injured patients.

2. Who Should Read This Policy?

Neurosurgical Attending, Trauma Attending

3. Purpose:

To develop and provide a systematic and safe approach to the care of the adult trauma patient who requires neurosurgical consultation or neurosurgical intervention and to ensure neuro- trauma care is continuously available for all TBI and spinal cord injured patients.

4. Definitions:

N/A

5. The Policy:

Response Policy/ Procedure: Neurosurgery evaluation must occur within 30 minutes of request for the following:

- Any trauma issue in which a neurosurgeon is immediately requested by the trauma service

- Acute, operative epidural or subdural hematoma > 1cm thickness with 5mm or greater midline shift
- Survivable penetrating injury to the brain with exposed brain tissue
- Emergent operative spinal cord injury and/or spinal fracture with progressive deficits (i.e. spinal injury with deficits, central cord syndrome, the presence of an epidural hematoma **with** significant stenosis and/or neurologic deficit)
- Severe TBI (GCS less than 9) with head CT evidence of intracranial trauma
- Moderate TBI (GCS 9-12) with head CT evidence of potential intracranial mass lesion
- Neurologic deficit as a result of potential spinal cord injury
- Trauma surgeon discretion

The immediate neurosurgery consult will be placed by the trauma services physician directly to the neurosurgeon attending on call. Operative intervention will be determined by the neurosurgeon after review of the radiographic images.

Non-urgent consults made by the trauma service will be seen by the neurosurgical subspecialty within 24 hours of consult placement.

Encumbered Contingency Policy/ Procedure:

When the on-call neurosurgeon is encumbered and a patient requires urgent neurosurgical intervention:

A. Neurosurgery Call Schedule:

A published neurosurgeon call schedule is distributed monthly to facilitate easy identification of neurosurgeon availability.

B. Neuro-trauma Contingency Plan:

The Neuro-trauma Contingency Plan will be implemented when the neurosurgeon on call becomes encumbered and is not available to see the neuro-trauma patient in a timely manner.

- I. The back-up neurosurgeon(s) will be called.
- II. If the back-up neurosurgeon is encumbered an attempt will be made to contact the remaining neurosurgeons from the call panel to provide the urgent neurosurgical intervention. This process will not exceed more than 30 minutes.
- III. If unable to obtain appropriate neurosurgeon response the trauma attending will initiate transfer of the patient to the nearest level 1 trauma center with which there is a transfer agreement in place for such events (Vanderbilt). The trauma team will directly contact the accepting facility to assist with an expeditious transfer.

C. Credentialing Requirements of the Trauma Surgeon to Provide Initial Evaluation and Stabilization of the Neuro-trauma Patient:

- I. The Trauma Medical Director ensures the trauma surgeon meets the credentialing criteria to perform initial evaluation and stabilization of the TBI and spinal cord injured patient.
- II. Credentialing Criteria include:
 - i. Current ATLS certification

- ii. Review of Guidelines for Initial Management of TBI from the Brain Injury Foundation
- iii. Review of the institution's Guidelines on Trauma Spine Assessment and Cord Injury
- iv. Actively Participates in Trauma Call

D. Monitoring of the Efficiency of the Neuro-trauma Contingency Plan:

The Performance Improvement Patient Safety program reviews instances when the Neurosurgeon did not respond to the Trauma Service with a surgical (or non-surgical) plan within 30 minutes of a critical response consult.

References:

1. Lee JC, Rittenhouse K, Bupp K, et.al. An analysis of Brain Trauma Foundation traumatic brain injury guideline compliance and patient outcome. *Injury, Int J Care Injured*. 2015; 46:854-8.
2. Bratton SL, Chestnut RM, Ghajar J, McConnell Hammond FF, Harris OA, Hartl R, et al. Guidelines for the management of severe traumatic brain injury. 3rd Edition. *J Neurotrauma* 2007; 24:S1-S106.
3. Cooper DJ, Rosenfeld JV, Murray L, et.al. Decompressive craniectomy in diffuse traumatic brain injury. *N Engl J Med* 2011; 364(16):1493-502.
4. Jiang J, Xu W, Li W, et.al. Efficacy of standard trauma craniectomy for refractory intracranial hypertension with severe traumatic brain injury: a multicenter, prospective, randomized, controlled study. *J Neurotrauma* 2005; 22(6):623-8.

Approval Signatures

Step Description	Approver	Date
VP Approval	Jessica Holladay: VP & ACNO Surg & Trauma Svcs	08/2025
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