

CLINICAL PRACTICE GUIDELINE:

Intracranial Pressure (ICP) Monitoring Placement

DATE OF ORIGIN: 12/2022

REVISED/UPDATED: 11/03/2025

PHYSICIAN CLINICAL JUDGEMENT SUPERSEDES THIS GUIDELINE

PURPOSE: The purpose of this guideline is to provide guidance in determining if placement of intracranial pressure monitoring devices is appropriate in the trauma patient with severe traumatic brain injury (TBI).

PROCEDURE:

1. ICP placement/monitoring appropriate for salvageable patients with **both** of the following:
 - a. Severe TBI (GCS \leq 8 after resuscitation)
 - b. Abnormal CT scan (reveals hematomas, contusions, swelling, herniation, or compressed basal cisterns)
2. ICP placement/monitoring indicated for severe TBI patients with a normal head CT if \geq 2 of the following are present upon admission:
 - a. $>$ 40 years old
 - b. Unilateral or bilateral motor posturing
 - c. SBP $<$ 90mmHg

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References

1. American College of Surgeons. (2025). *Best Practice Guidelines: The Management of Traumatic Brain Injury*. www.facs.org/media/mkej5u3b/tbi_guidelines.pdf.
2. Hawryluk GWJ, Rubiano AM, Totten AM, O'Reilly C, Ullman JS, Bratton SL, Chesnut R, Harris OA, Kisson N, Shutter L, Tasker RC, Vavilala MS, Wilberger J, Wright DW, Lumba-Brown A, Ghajar J. (2020). Guidelines for the Management of Severe Traumatic Brain Injury: 2020 Update of the Decompressive Craniectomy Recommendations. *Neurosurgery*, 87(3):427-434. doi: 10.1093/neuros/nyaa278.