

Barnes Jewish Hospital/Washington University  
Trauma Service  
Blunt Cerebrovascular Injury (BCVI) Guideline

**Indications for Screening:**

1. Neurologic abnormality that is not otherwise explained by known injury pattern either at the time of admission or that develops during the hospitalization.
2. Asymptomatic patients at significant risk for BCVI as defined below:
  - Petrous bone fracture
  - Diffuse axonal injury
  - Lefort II or III facial fractures on either side
  - Skull base fracture thru carotid canal
  - Cervical spine fractures as listed below (excluding transverse process fractures):
    - All C1 through C3 fractures excluding spinous process and Type I or II dens fractures)
    - All other cervical spine fractures of the body and foramen transversarium
    - All facet fractures
    - Displacement or misalignment of the spine noted at time of cervical imaging

**Treatment:**

1. Consult:
  - Neurosurgery if vertebral injury or carotid with intracranial injury
  - Vascular surgery if isolated carotid injury
2. Intimal irregularity, dissection, or intramural hematoma without occlusion (Grade 1 or 2):
  - ASA (If no contraindications), Consider full heparinization based on significant injury pattern and/or patient risk factors for anticoagulation
3. Pseudo aneurysm, occlusion, or transection (Grade 3, 4 or 5):
  - Intervention is likely required depending on patient condition.
    - For cranial vault or vertebral artery injuries, consult neurointerventional radiology

Note: Individualized, clinical judgment supersedes all written guidelines.

\*\*\* Controlled Document \*\*\*

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