**Purpose**

Primary Children’s Hospital is an ACS Pediatric level one trauma center located in the Intermountain West. The purpose of this poster is to share our institutions’ best practice algorithm for the evaluation of Pediatric Blunt Cerebrovascular Injury.

**Background**

The incidence of BCVI accounts for 1% of injuries. Screening increases the incidence from 2.7% of blunt trauma patient with ISS>16. EAST recommends patients with neurologic deficit, not explained by injury and those with arterial epistaxis be screened. Determination of which asymptomatic patients to screen is unclear. Data supports those with GCS <8, petrous bone fracture, diffuse axonal injury, cervical spine fracture (C1-3 or fracture through the foramen transversarium), LeFort II or III facial fractures, cervical spine fracture with subluxation or rotation. Prospective screening of all patients at risk for injury, increased identification of incidence of BCVI to 34%. EAST recommends pediatric patient follow the same screening criteria as adults. A recent review by Drs. Fenton and Bollo (2017) suggest the use of the “Utah Score” to identify high risk patients.

A retrospective cohort analysis was used to develop a predictive tool for BCVI in pediatric trauma; the Utah Score. The Utah Score stratifies risk for BCVI into “high” or “low” risk based on clinical and radiologic findings. Individuals with a “low” risk can be observed while those with “high” risk undergo CTA screening. The Utah Score has subsequently been validated using a retrospective with a positive predictive value of 18% and negative predictive value of 97% in a multi-center population of 645 pediatric trauma patients. Use of this tool will help us limit unnecessary screening of asymptomatic patients at low risk for BCVI.

**Treatment recommendations parallel those in the EAST best practice guideline using an adapted Denver Grading Scale. Duration of treatment is unknown, though 3 months is recommended with follow up imaging to monitor persistence or progression.**

**Recommendations**

In an effort to use current literature to screen the ‘right’ patients and minimize radiation exposure our institution has chosen to implement a best practice algorithm.

**REFERENCES**


