Conclusion: The prevalence of IPV reported by ED patients was higher among LGBTQ than heterosexuals and females than males. This study has several limitations that include sampling from a single hospital, thereby limiting generalizability, and including only patients without visitors, which could undercount IPV. This study is among the first to estimate the prevalence of IPV by sexual orientation and shows that orientation should be considered when screening.

55 Temporal Profile of Microtubule Associated Protein (MAP-2): A Novel Indicator of Brain Injury Severity After Trauma
Linda Papa1, Steven A. Robicsek2, Gretchen M. Brophy3, Kevin KW. Wang4, H. Julia Hannay5, Shelley Heaton6, Ilona Schmalfuss7, Andrea Gabrielli8, Ronald L. Hayes9, and Claudia S. Roberston1
1Orlando Regional Medical Center, 2University of Florida, 3Virginia Commonwealth University, 4University of Texas, 5University of Pennsylvania, 6Banyan Biomarkers, 7Baylor College of Medicine

Objective: To assess microtubule associated protein (MAP2) as a potential biomarker for traumatic brain injury (TBI) in adult patients with severe TBI by comparing levels in uninjured controls and examining the relationship between MAP2 levels over ten days and acute and long-term measures of injury severity.

Methods: This prospective study, conducted at two Level 1 Trauma Centers, enrolled adults with severe TBI defined by Glasgow Coma Scale (GCS) score \( \leq 8 \) requiring a ventilator. Ventricular cerebrospinal fluid (CSF) was sampled from each patient at 6, 12, 24, 48, 72, 96, 120, 144, 168, 192, 216 and 240 hours following TBI and analyzed via ELISA for MAP2 (ng/ml). Control subjects required CSF drainage for other medical conditions such as routine anasthesia. Injury severity was assessed by the GCS score, Marshall Classification on CT, Rotterdam score and the Glasgow Outcome Scale (GOS) Score 6 months post-injury. Biomarker performance was assessed using Mann Whitney U, AUC with 95% CIs.

Results: There were 151 patients enrolled, 130 TBI patients and 21 control patients. Mean age was 38 (SD 15) and 81% male. MAP2 was detectable in CSF within 6 hours of injury and was significantly elevated compared to controls (\( p < 0.001 \)) at each time-point. MAP2 was highest within 72 hours of injury and decreased gradually over 10 days. The AUC for deciphering TBI versus controls at the earliest time-point CSF was obtained was 0.96 (95%CI 0.93-0.99) (\( p < 0.001 \)). The AUC for the maximal level within 24 hours was 0.99 (95%CI 0.97-1.00). Levels were significantly higher in non-survivors and those with a post-resuscitation GCS score of 3-5. The highest concentrations of MAP2 were in those who died within 48 hours. Levels were highest among patients with diffuse injury compared to those with mass lesions. Among the diffuse injury group, those with Diffuse Injury III-IV had much higher initial (\( p=0.028 \)) and maximal (\( p=0.002 \)) MAP2 levels than those with Diffuse Injury III. The initial and maximal concentrations of MAP2 in each of the GOS score categories measured at 6 months, decreased in a graduated fashion as the severity of the outcome decreases with p-values of 0.092 and 0.037, respectively.

Conclusions: These data suggest that early levels of MAP2 have the potential to determine injury severity in TBI patients. Further studies are needed to validate these findings in a larger sample.

56 External Validation of the UC Davis Clinical Decision Instrument to Identify Adults in a Community Setting With Mild Traumatic Intracranial Hemorrhage at Low Risk for Requiring Intensive Care Unit Admission
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Background: Patients with mild traumatic intracranial hemorrhage (tICH)—defined as Glasgow Coma Scale (GCS) score \( \geq 13 \)—are often admitted to the intensive care unit (ICU) but may not require critical care interventions. A clinical decision instrument (CDI) was derived at an academic, Level 1 trauma center that identifies patients at low risk for critical care interventions based on the absence of the following criteria: age \( \geq 80 \) years, non-isolated head injury, and swelling or shift on cranial CT.

Objective: To assess microtubule associated protein (MAP-2) as a potential biomarker for traumatic brain injury (TBI) in adult patients with severe TBI by comparing levels in uninjured controls and examining the relationship between MAP2 levels over ten days and acute and long-term measures of injury severity.

Methods: This prospective study, conducted at two Level 1 Trauma Centers, enrolled adults with severe TBI defined by Glasgow Coma Scale (GCS) score \( \leq 8 \) requiring a ventilator. Ventricular cerebrospinal fluid (CSF) was sampled from each patient at 6, 12, 24, 48, 72, 96, 120, 144, 168, 192, 216 and 240 hours following TBI and analyzed via ELISA for MAP2 (ng/ml). Control subjects required CSF drainage for other medical conditions such as routine anasthesia. Injury severity was assessed by the GCS score, Marshall Classification on CT, Rotterdam score and the Glasgow Outcome Scale (GOS) Score 6 months post-injury. Biomarker performance was assessed using Mann Whitney U, AUC with 95% CIs.

Results: There were 151 patients enrolled, 130 TBI patients and 21 control patients. Mean age was 38 (SD 15) and 81% male. MAP2 was detectable in CSF within 6 hours of injury and was significantly elevated compared to controls (\( p < 0.001 \)) at each time-point. MAP2 was highest within 72 hours of injury and decreased gradually over 10 days. The AUC for deciphering TBI versus controls at the earliest time-point CSF was obtained was 0.96 (95%CI 0.93-0.99) (\( p < 0.001 \)). The AUC for the maximal level within 24 hours was 0.99 (95%CI 0.97-1.00). Levels were significantly higher in non-survivors and those with a post-resuscitation GCS score of 3-5. The highest concentrations of MAP2 were in those who died within 48 hours. Levels were highest among patients with diffuse injury compared to those with mass lesions. Among the diffuse injury group, those with Diffuse Injury III-IV had much higher initial (\( p=0.028 \)) and maximal (\( p=0.002 \)) MAP2 levels than those with Diffuse Injury III. The initial and maximal concentrations of MAP2 in each of the GOS score categories measured at 6 months, decreased in a graduated fashion as the severity of the outcome decreases with p-values of 0.092 and 0.037, respectively.

Conclusions: These data suggest that early levels of MAP2 have the potential to determine injury severity in TBI patients. Further studies are needed to validate these findings in a larger sample.

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Conclusions: These data suggest that early levels of MAP2 have the potential to determine injury severity in TBI patients. Further studies are needed to validate these findings in a larger sample.

57 Scapular Fractures in the Pan-scan Era
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Background: Scapular fractures have been traditionally taught to be associated with significant injuries and major morbidity. Increased CT usage in blunt trauma evaluation, however, may diagnose minor, clinically irrelevant scapular fractures, possibly rendering previous teachings obsolete.

Objectives: To determine the 1) percentage of scapular fractures seen on chest CT only (SOCTO) versus on both chest x-ray (CXR) and CT, 2) admission rates, mortality, length of stay, and injury severity score associated with scapular fractures, and 3) injuries commonly associated with scapular fractures.