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# Research Week 2024

## S100B as a Protein Marker for Intracranial Hemorrhages

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### Keywords

S100 Calcium Binding Protein beta Subunit; Humans; Intracranial Hemorrhages; Tomography, X-Ray Computed; Enzyme-Linked Immunosorbent Assay; Brain Injuries, Traumatic; Data Collection; Hemorrhage; Hospitals

#### **Abstract**

This study aims to evaluate the effectiveness of S100B as a protein marker for patients that are clinically diagnosed with an Intracranial Hemorrhage (ICH). This study enrolled patients that present to the hospital as a trauma activation consistent with a traumatic brain injury (either a blunt or penetrating traumatic mechanism) who are 15 or older, GCS of 12 or lower, and received the placebo arm of the TXA drug. The S100B level of patients will be measured through an Enzyme-Linked Immunosorbent Assay (ELISA). After the data collection, a statistical test will be conducted to determine the level of significance for an elevation of the S100B for the group of patients that was diagnosed with an ICH and that was not diagnosed with an ICH. Since the S100B protein levels are still being collected for this study, analysis has not been conducted to determine if there is a correlation between the S100B protein and ICH. It is hypothesized that the S100B protein level will be higher for patients that were diagnosed with an ICH compared to patients that are not diagnosed with an ICH. The results of this study will guide standard protocols for treating incoming traumas with a suspected cranial hemorrhage and areas that lack the access to a CT scanner.