A heat map is a type of data visualization that displays aggregated information using color to represent intensity. It is also our goal to section the chest wall to match injury mechanism with distribution patterns of injuries.

We will use analysis software associated with the CIID database to examine injury patterns, mechanism of injury, Injury Severity Score (ISS), Blunt Pulmonary Contusion 18 score (BPC 18), long bone fracture, spine fractures, pelvis fractures, and other operations as well as outcomes for all CIID entries..

Evaluation of fracture patterns may have significant implications in care pathways and help in the development of treatment strategies. Our objective is to evaluate the mechanism of injury in rib fracture patients and to investigate if there is a distinct rib fracture pattern of injury based on mechanism of injury.

Research pertaining to rib fracture management has grown exponentially over the last several years.

There is very little research examining the mechanism of injury and rib fracture injury patterns.

Fracture patterns based on mechanism, age, gender, and other possible correlations may help allocate resources and improve prevention strategies.

We will use data contained within the Chest Injury International Database (CIID) to analyze fracture patterns and correlations between multiple data points.

Data will be analyzed, and heat map technology will be used to cluster injuries.

Our hypothesis is that specific mechanisms of injury have distinct rib fracture patterns associated with them.

The data bank will be searched for the entire time frame it has been operational. As of today, the CIID database contains data from approximately 10 international and United States hospitals with greater than 1,500 cases.