Trauma patient denominator inclusion criteria:

- Age greater than or equal to 16 years
- Injury (defined by ICD-10 diagnosis codes of S00-S99, T07, T14, T20-T28, T30-T32, and T79.A1-T79.A9, excluding isolated injuries of S00, S10, S20, S30, S40, S50, S60, S70, S80, S09) as a result of blunt or penetrating mechanism (defined by standardized ICD-10 External Cause Code reference – see Appendix 2), and excluding second or third degree burns >20% total body surface area.
- At least one injury of Abbreviated Injury Score (AIS 2005/08 Update) severity greater or equal to 3 in an AIS body region other than “external”
- Hospital admission OR death in the emergency department
- No documented advance directive to withhold life sustaining intervention
- Signs of life on ED arrival as defined by any one of GCS motor score > 1, First ED systolic blood pressure > 0, OR First ED heart rate > 0

Geriatric hip fractures exclusions are patients who meet the following criteria:

- Age greater than or equal to 65
- Injury mechanism of fall (defined by standardized ICD-10 External Cause Code reference – see Appendix 2)
- At least one of the following AIS 2005/08 Update codes: 853111.3, 853112.3, 853151.3, 853152.3, 853161.3, 853162.3, 853171.3, 853172.3
- No other injuries except those in the AIS body region “external” (lacerations, abrasions, bruising)