**Article title:** Prehospital physiological parameters associated with acute thoracic intervention in patients with thoracic trauma: a retrospective single-centre cohort study

**Journal:** European Journal of Trauma and Emergency Surgery

**Authors:** Lukas Reccius, Tomás Da Silva, Christian Knop, Martin Breitkopf

**Affiliations:**

1. Department of Anesthesiology, Klinikum Stuttgart, Stuttgart, Germany
2. Department of Trauma Surgery and Orthopedics, Klinikum Stuttgart, Stuttgart, Germany

**Corresponding author:** Lukas Reccius, Email: lukas.reccius@student.uni-tuebingen.de

| Variable | Adjusted OR | 95% CI | p-value |
|---|---|---|---|
| Age (per year) | 0.990 | 0.974–1.007 | 0.238 |
| $SpO_2$ (per 1 percentage-point increase) | 0.944 | 0.905–0.984 | 0.007 |
| Systolic blood pressure (per mmHg increase) | 1.001 | 0.992–1.011 | 0.813 |
| Respiratory rate (per breath/min increase) | 1.071 | 1.010–1.135 | 0.021 |
| Heart rate (per beat/min increase) | 1.001 | 0.986–1.015 | 0.927 |
| Glasgow Coma Scale (per 1-point increase) | 1.015 | 0.932–1.105 | 0.731 |
| Penetrating trauma | 6.337 | 1.797–22.351 | 0.004 |
| ISS >25 | 1.816 | 0.954–3.456 | 0.069 |

Supplementary Table 1 Exploratory alternative multivariable logistic regression model. The exploratory model included 277 complete cases, of whom 77 underwent thoracic intervention. Odds ratios are adjusted for all variables listed in the table.

| Variable | Adjusted OR | 95% CI | p-value |
|---|---|---|---|
| $SpO_2$ (per 1 percentage-point increase) | 0.952 | 0.916–0.989 | 0.011 |
| Systolic blood pressure (per mmHg increase) | 0.997 | 0.989–1.005 | 0.481 |
| Glasgow Coma Scale (per 1-point increase) | 1.015 | 0.927–1.111 | 0.747 |
| Prehospital intubation | 1.126 | 0.526–2.412 | 0.760 |
| Penetrating trauma | 12.955 | 3.473–48.320 | <0.001 |
| ISS >25 | 1.613 | 0.875–2.976 | 0.126 |
| AIS Thorax ≥4 | 2.489 | 0.860–7.204 | 0.093 |

Supplementary Table 2. Sensitivity analysis of factors associated with thoracic intervention after additional adjustment for AIS Thorax ≥4. The model included 317 complete cases, including 85 patients with thoracic intervention. Odds ratios are adjusted for all variables listed in the table. $SpO_2$, systolic blood pressure, and Glasgow Coma Scale are reported per one-unit increase.