

### Incidence of Penetrating Trauma in an Urban Level 1–Trauma Center. A Retrospective Clinical Survey of the Years 2016–2021.

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**Introduction:** Penetrating trauma is a highly visible issue in history, social media, and politics. Crime statistics showed increasing numbers of violations of the law banning assault weapons in Germany. Although these injuries have historically been rare in Germany, we have noticed increasing numbers in our hospital. Studies focusing on these injuries of penetrating trauma are lacking, hence a distinct therapy algorithm is missing.

**Method:** All penetrating injuries proximal to the wrist and ankle in the years 2016–2021 were analyzed in a retrospective survey. Isolated injuries of hand and foot were excluded. Data were gathered from the clinical information system and the protocol of the emergency medical services. For further analysis we identified three distinct groups: Patients who acquired the injury by an accident (ACCIDENT), self-inflicted (SELF-HARM) or by crime (ASSAULT). The groups were compared using Microsoft Excel® and Sigma plot® (Jandel, San Rafael, CA).

**Results:** A total of 961 cases were identified. The analysis showed an increasing number of cases with penetrating injuries from 2016 until 2019. Furthermore, major differences between the groups were revealed. The assault victims (ASSAULT n=117) were mostly male (91%) and non-German (52%). They were more likely to be accompanied by the police (13%), to be intoxicated, to require hospital admission (also to critical care) and to require surgery as compared to the cases of the ACCIDENT (n=484) and SELF-HARM (n=360) group. The SELF-HARM group cases were predominantly female, younger and had psychiatric comorbidities.

**Conclusion:** The cause of penetrating trauma injury is important and can provide information crucial to the management of the patient. The emergency treatment of assault victims is challenging due to the particular circumstances of these cases. Optimal preparation and anticipation of the accident and emergency staff are necessary to deal with these patients. In summary, assault victims had more serious injuries than the other groups.

*Prehosp. Disaster Med.* 2023;38(Suppl. S1):s208

doi:10.1017/S1049023X23005319

### Severe Trauma in Germany and Israel– Are We Speaking the Same Language? A Trauma Registry Comparison

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**Introduction:** Trauma registries are a crucial component of trauma systems, as they could be utilized to perform a benchmarking of quality of care and enable research in a critical but important area of health care. The aim of this study is to compare the performance of two national trauma systems: Germany (TraumaRegister DGU®, TR-DGU) and Israel (Israeli National Trauma Registry, INTR) in a retrospective analysis.

**Method:** Patients from both registries treated during 2015–2019 with an Injury Severity Score (ISS) ≥ 16 points were included. Patient demographics, pre-hospital care, hospital treatment, and outcome were compared.

**Results:** Data were available from 12,585 Israeli patients and 55,660 German patients. Age and sex distribution were comparable, and road traffic accidents were the most prevalent cause of injuries. The ISS of German patients was higher (ISS 24 versus 20), more patients were treated in an intensive care unit (92% versus 32%), and mortality was higher (19.4% versus 9.5%) as well.

**Conclusion:** Despite similar inclusion criteria (ISS ≥ 16), remarkable differences between the two national datasets were observed. Most likely, this was caused by different recruitment strategies of both registries like trauma team activation and the need for intensive care in TR- DGU. More detailed analyses are needed to uncover similarities and differences between both trauma systems.

*Prehosp. Disaster Med.* 2023;38(Suppl. S1):s208

doi:10.1017/S1049023X23005320

### Who Were the Most Vulnerable to the COVID-19 Pandemic? A Nationwide Panel Survey on Infection, Exercise Habits, and Weight in Japan

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**Introduction:** Behaviors to avoid infection are key to minimizing casualties of the COVID-19 pandemic. Even so, infection-avoidance behavior may also cause distant health impacts like immobility and obesity. This research aims at identifying behavioral patterns associated with SARS-CoV-2 infection, exercise habits, and being overweight in the Japanese population.

**Method:** Nationwide online questionnaires were conducted five times from October 2020 to October 2021. Individuals who answered with consistency to have been diagnosed with