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### **Use of Trauma registry to improve quality of politraumatized patients care**

**Background:** Polytrauma is a public health and one of the main causes of morbidity and mortality in young adults. The Spanish national trauma registry has been developed to improve the quality of care in these patients.

**Aim:** Analyze the attention to the polytraumatized patient in our center to improve the quality of care.

**Methods:** Retrospective analysis of polytraumatized patients treated at the Virgen del Rocío Hospital (Seville) from August 2017 to December 2018, comparing the results with national registry.

**Results:** A total of 80 polytraumas were registered in our center. The majority were males (70%) with a median age of 41 years. The mean ISS was 20, with an average NISS of 20.5 and the most frequent injury mechanism was by stab wound (21.18%) followed by car collision (18.82%). Total mortality was 6.25%. ECOFAST was performed in 45% (36 patients), positive in 15% and TAC was performed in 92.5% (74 cases). 42 patients (52.5%) needed urgent surgery: open abdominal surgery in 30 (71.43%) and damage control surgery in 9 (21.43%). Arteriography and embolization were performed in 7 patients (8.75%). 55% of patients need ICU with a median stay of 5.5 days. Median hospital stay was 9.5 days.

We compare our center results with 710 records in national database: shorter stay in the ICU (55% vs 79.15%), shorter hospital stay (13 days vs 9.5 median days) and lower overall mortality (6.25% vs. 11.55%). There are also differences in the rate of ECOFAST (45% vs 76%) and surgical technique: open surgeries (71.43% vs 41.43%) and damage control surgeries (21.43% vs 11.76%).

**Discussion:** Comparing with national registry we observed lower ICU admission, shorter hospital staying and lower mortality. These data should be interpreted with caution because differences in the severity of patients (NISS 20.5 vs 25). We found a lower rate of ECOFAST, greater number of open surgeries and damage control, which may be related to injury mechanism (stab wound vs traffic accident). Finally, records have limitations such as minor polytraumas patients who are not treated at specialized centers and are not register.