



## 6<sup>th</sup> WSES Congress 2019

### **Title:**

Stability Examination and Treatment Of the Pelvis (STOP) in the pre-hospital phase

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### **Topic:**

Trauma and damage control

### **START COUNT**

#### **Background:**

Instable pelvic fractures are associated with significant hemorrhage and shock. Instability of the pelvic ring should be tested with the manual compression test (MCT) and instable pelvic ring fractures should prompt mechanical stabilization. However, the accuracy of the prehospital MCT in patients, that sustained a high energetic trauma, is still unknown.

#### **Aim:**

This study aims to establish the diagnostic accuracy of the prehospital clinical examination of the pelvic ring by a HEMS physician, guiding for therapeutic intervention by pelvic binder.

#### **Methods:**

This prospective blind observational study included all patients after a high impact blunt trauma treated by an experienced Helicopter Emergency Medical Service (HEMS) physician. Nominal arranged questionnaires were filled in by the HEMS physician prior to the radiological examination of the patient.

#### **Results:**

56 patients were included, of which 11 sustained a pelvic ring fracture. 13 patients were treated with pelvic compression devices, of which only five patients had a pelvic ring fracture. Prehospital performed clinical examination by the HEMS physicians had an overall sensitivity of 0.45 (95% CI 0.16-0.75) and a specificity of 0.93 (95% CI 0.29-0.96). The positive predicting value (PPV) is 0.63 (95% CI 0.29 – 0.96) and the negative predicting value (NPV) is 0.88 (95% CI 0.78 – 0.97).



**Discussion:**

Pelvic ring instability cannot accurately be diagnosed in the prehospital setting, based on the MCT. The use of the pelvic binder should standard in high impact blunt trauma patients, independently of the MCT or trauma mechanism.

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**Position presenting author:** underlined

**Word count of abstract body:** maximal 350 words