

## The role of nurse and paramedic in the management of patients with polytrauma in Hospital Emergency Department

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The work of nurse and paramedic in the emergency department (ED) is to rescue patients in a state of sudden emergency health threat. Management of patients with multi-organ injuries is not only diagnostic and therapeutic problems but also care one.

**Objectives:** The role of nurse and paramedic in the management of patients with polytrauma.

**Material and Methods:** The study was conducted in the ED of the 10 Military Hospitals in Bydgoszcz in the years of 2010 to 2012. 154 medical records were evaluated retrospectively. Duration of staying in the ED, effects of alcohol, mechanism of injury, injury severity score using the Revised Trauma Score (RTS) were evaluated.

**Results:** Paramedic made a pre-triage segregation. 116 (75%) of patients received color red (emergency aid), 5-9 RTS points while 38 persons (25%), 9-12 RTS points received yellow (urgent help) mark. The length of staying in the ED ranged from 1.5 to 5 hours (median 3.25). There were 96 men (62%) and 58 females (38%), aged from 18 to 71 years (median 53.5). 57 of patients (37%) were under the influence of alcohol or drugs. Traffic accident was the main cause of injury (58%), falling from a height (25%) was second one and others causes (17%). 93 patients (60%) were hospitalized, of which 63 patients (41%) found their way to the operating suite. The rescuer should perform the following tasks: ABC (making an airway access, assessment of breathing rate and blood circulation). She/he performed 25 intubations (16%). The nurse gave anti-tetanus anatoxin to 42 patients (27%), debrided a wound in 98 people (64%) and made 100 ECGs. They participated together in 8 (5%) cardio-respiratory resuscitations, pneumothorax decompression in 10 patients (6%). They assisted in 54 (33%) of dislocation repositionings and applying casts in 72 (47%) cases. Establishment of peripheral insertions and blood sampling for the study were performed in all patients. 61 people (40%) were discharged home with instructions to continue outpatient treatment after diagnosis and initial treatment in the ED. There were no deaths.

**Conclusions:** Preliminary assessment of the health status allows the use of the "golden hour" rule. The distribution of roles assures the holistic patient care. Common taking actions reduce the length of staying in the ED, minimize complications and prevent deaths.

**Keywords:** Multiple trauma, hospital emergency department, and multi-organ injuries

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