

Experimental assessment of recovery position placement by non-medical personnel: a performance-variability study

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Objective: This performance-variability study analyzes the variations and degree of consistency in the application of techniques used by trained non-medical personnel to place a person into the recovery position. The study primarily examines performance variability in adjusting cervical spine rotation and flexion as part of preventive measures.

Design, material and methods: An experimental design assessed the ability of the study group to place an unconscious person into the recovery position. A total of 500 participants aged 15 years and older were recruited from health science high schools and universities. Observations focused on body maneuvers such as shoulder and knee grips, spinal rotation, and head tilt. Gyroscopic sensors and an electronic goniometer measured head and cervical spine angles, while an experienced paramedic evaluated the positioning technique.

Results: Correct shoulder and knee grips were used by 445 (89%) and 430 (86%) participants, respectively. Suboptimal grips – e.g., wrist or ankle – were observed in the rest, compromising control and stability. Spinal rotation of the patient was measured and evaluated: 170 (34%) participants showed asymmetry due to poor coordination. Study-specific exploratory ranges based on a subjective assessment of one standardized patient were derived at 20–40° (achieved by 347 participants) for head tilt and 90–110° (achieved by 309 participants) for rotation around the body axis.

Conclusion: Considerable variability was observed in recovery-position placement, particularly in head tilt and body rotation. Further research is needed to define the optimal positioning angles and to assess the extent to which trained individuals are able to achieve them consistently in practice.

Key words: recovery position, positioning, first aid, life-saving maneuvers, lay rescuer.

Experimentální hodnocení uložení do zotavovací polohy nelékařským personálem: studie variability výkonu

Cíl studie: Tato studie variability výkonu analyzuje variace a stupeň konzistence v aplikaci technik používaných sledovanou skupinou k umístění osoby do zotavovací polohy. Studie primárně zkoumá variabilitu výkonu při úpravě rotace a flexe krční páteře jako součást preventivních opatření.

Typ studie, materiál a metoda: Experimentální design hodnotil schopnost sledované skupiny umístit osobu v bezvědomí do zotavovací polohy. Celkem se výzkumu účastnilo 500 studentů zdravotnických oborů splňujících podmínku věku 15 let a více. Pozorování se zaměřila na pohyby těla, jako je uchopení ramen a kolen, rotace páteře a záklon hlavy. Gyroskopické senzory a elektronický goniometr měřily úhly hlavy a krční páteře, zatímco zkušený záchranář hodnotil techniku polohování.

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