

EP 2.3 A registry-based pilot study of traumatic brain injury in two middle-income countries

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BIOGRAPHY

Young researcher, Ph.D. (c), Assistant Professor. Research interest: health promotion, injury prevention, TBI. Since 2017, involved in scientific research within 2 international projects funded by NIH-iCREATE (Increasing Capacity in Research in Eastern Europe) and INITIatE (International Collaboration to increase Traumatic Brain Injury Surveillance in Europe). For the last 5 years, co-author in 11 articles, 18 abstracts, and 24 oral communications at national and international events.

INTRODUCTION

TBI is a major cause of death and disability worldwide. Each year, in Europe, around 2.5 million people suffer a TBI, and 1 million require appropriate medical care. Injury prevention for the Republic of Moldova and Georgia, two middle-income countries, is one of the priority areas for public health surveillance; however, there are few data reported concerning TBI.

OBJECTIVES

This study aimed to identify the frequency and characteristics of TBI among patients treated in the largest trauma hospitals in both capital cities, Chisinau and Tbilisi.

METHODS

A prospective study was conducted among TBI patients within 4 large hospitals (2 in each country) offering care for injured patients. Data were collected between March 1 – August 31, 2019, using a TBI Registry modeled after WHO and US trauma system registries. The Registry contained information from existing patient medical records and additional information from medical providers that is not routinely included in medical documentation. Red-Cap was used for electronic data collection and SPSS software for data analysis. Ethics Committee approval was obtained from all institutions.

RESULTS

In total, 910 TBI patients were hospitalized: 542 cases in Georgia and 368 in the Republic of Moldova. Patients' ages ranged from 1 month to 94 years; the average age was 32.1 for MD and 17.7 for GE. In both countries, prevail males (69.3% MD, 63% GE). The ambulance was the principal source of hospital arrival (97% MD, 60% GE), mostly patients arrived with stable vital signs. Most of TBI cases (90%) in both countries happened in urban areas, and within home environment (32% GE, 28% MD). Most of TBI hospitalizations (95% GE, 88.9% MD) were unintentional injuries, and 9.8% MD and 2% GE - work-related injuries. The main causes of TBI were falls (58% GE, 53.5% MD) mainly among males. Follows, road traffic crashes in MD (30.7%) mainly in transport areas and struck by or against an object in GE (22%) with most cases in 15–24 age group. Almost half of the injured in road traffic were passengers in a vehicle (45% GE, 36.3% MD), pedestrians (43.4% MD, 30% GE), cyclists (15% GE, 11.5%MD), and motorcyclists (11% GE, 7.1% MD).

CONCLUSION

This study offers valuable TBI information in both countries to develop appropriate preventive measures. Results provide argumentations of an injury registry for comparable data among countries and highlight areas of research.