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Incidence trends of traumatic spinal cord injury and traumatic brain injury in Spain, 2000–2009

Katherine Pérez[a,b,c,*], Ana M. Novoa[a,b,c], Elena Santamariña-Rubio[a,b,c], Yislenz Narvaez[a], Vita Arrufat[d], Carme Borrell[a,b,c], Elena Cabeza[e], Eva Cirera[f], Josep Ferrando[g,c], Anna García-Altés[h,b,c], Juan Carlos Gonzalez-Luque[i], Vicenta Lizarbe[j], Carlos Martin-Cantera[k], María Seguí-Gómez[l], Josep M. Suelves[m], on behalf of the Working Group for the Study of Injuries of the Spanish Society of Epidemiology

[a] *Agència de Salut Pública de Barcelona, Pl Lesseps 1, 08023 Barcelona, Spain*
[b] *CIBER Epidemiología y Salud Pública (CIBERESP), Instituto de Salud Carlos III - Melchor Fernández Almagro 3-5, 28029 Madrid, Spain*
[c] *Institute of Biomedical Research (IIB Sant Pau), Pavelló de Sant Frederic, 1a planta Sant Antoni Maria i Claret 167, 08025 Barcelona, Spain*
[d] *Conselleria de Sanitat (Generalitat Valenciana), Negociat Programes Promoció de la Salut, Centre de Salut Pública área 02, Castelló Avgda, del Mar 12, 12003 Castelló, Spain*
[e] *Conselleria de Salut i Consum (Illes Balears), Spain*
[f] *Facultat de Ciències de la Salut i el Benestar, Universitat de Vic, Sagrada Família 7, 08500 Vic, Spain*
[g] *IES Alexandre Satorras, Av. Velòdrom 37, 08304, Mataró, Barcelona, Spain*
[h] *Agència d'Informació, Avaluació i Qualitat en Salut, Spain*
[i] *Dirección General de Tráfico (Ministerio de Interior), Observatorio Nacional de Seguridad Vial, Dirección General de Tráfico, C/Josefa Valcárcel 44, 28071 Madrid, Spain*
[j] *Ministerio de Sanidad, Política Social e Igualdad, Paseo del Prado 18-20, 28014 Madrid, Spain*
[k] *Unitat Suport a la Recerca Barcelona, IDIAP Jordi Gol, Sant Elies 42, 08006 Barcelona, Spain*
[l] *European Center for Injury Prevention (Universidad de Navarra), Irunlarrea 1 (ed. Castaños S-200), 31080 Pamplona, Navarra, Spain*
[m] *Departament de Salut (Generalitat de Catalunya), Roc Boronat 81-95, 08005 Barcelona, Spain*

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ABSTRACT

Aims: The aim of the present study was to estimate the incidence of hospital discharges for traumatic spinal cord injury (TSCI) and traumatic brain injury (TBI) in Spain by injury circumstances (traffic crashes and others), injury severity, gender and age group and to describe its trends over the period 2000–2009.
Methods: It is a study of trends that includes hospital discharges with a primary diagnosis of TSCI or TBI. Crude and age-standardised rates were calculated per million inhabitants. Changes in rates between 2000 and 2009 were assessed through calculation of the relative risk adjusted for age, using Poisson regression.
Results: Between 2000 and 2009 in Spain, 10,274 patients were admitted for traumatic TSCI, and 206,503 for TBI. The annual incidence rate for TSCI was 23.5 per million, that for TBI was 472.6 per million. The overall incidence rate for TSCI fell significantly between 2000 and 2009 by 24.2% (traffic-related 40.9%, other 12.9%), as did that for TBI (23.8% overall, 60.2% traffic-related, with no change for other circumstances). Among people aged 65 years and over, no change was observed for TSCI, incidence of TBI fell significantly when due to traffic crashes, but there was a dramatic increase of 87% in men and 89.3% in women when due to other circumstances.
Conclusions: Over the last decade the incidence of these types of injury has fallen significantly when the injury resulted from traffic crashes, and to a lesser extent when from other circumstances. However TBI incidence among people aged 65 and over injured in non-traffic-related circumstances has risen dramatically.

1. Background

Traumatic injuries have a considerable impact on the population's health in terms of mortality, morbidity and disability. Worldwide they represent a leading cause of death and disability for all age groups except that of people aged 60 years and over (Peden et al., 2002). Traffic injuries and self-inflicted injuries are the leading causes of injury-related deaths worldwide (Peden et al.,

Abbreviations: TSCI, traumatic spinal cord injury; TBI, traumatic brain injury.

* Corresponding author at: Agència de Salut Pública de Barcelona, Pl Lesseps 1, 08023 Barcelona, Spain. Tel.: +34 93 202 77 88; fax: +34 368 69 43.
E-mail address: cperez@aspb.cat (K. Pérez).

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