0092 BRAIN AND SPINAL CORD INJURY IN AUSTRALIA – ECONOMIC COST AND BURDEN OF DISEASE

A Collie*, C Keating, L Pezzullo, B Gabbe, J Cooper, D Brown, J Olver, F McCartin, P Trethewey *Correspondence: Institute for Safety, Compensation and Recovery Research, Monash University, Level 6, 499 St Kilda Rd Melbourne, Victoria 3004, Australia*

10.1136/ip.2010.029215.92

Background Despite rapidly increasing knowledge of the biological, physical, emotional and social impact of traumatic

brain injury (TBI) and spinal cord injury (SCI), understanding of the economic impact of these injuries is limited.

Aims Determine the economic impact and burden of disease (BoD) of TBI and SCI in Australia. Compare the economic impact and BoD of TBI and SCI with other conditions. Model the potential impact of TBI and SCI clinical and rehabilitation strategies on the economic cost and BoD.

Methods An incidence-based costing approach was employed, measuring the number of new cases of TBI and SCI in the base period (calendar year 2008) and the costs associated with treatment, other financial and non-financial costs over the person's lifetime.

Results Total costs of TBI and SCI were estimated to be $8.6 billion and $2.0 billion, respectively, and accounted for 30 458 and 5090 disability-adjusted life years (DALYs) respectively. The financial cost per case per year of severe TBI was higher than all comparator conditions except muscular dystrophy. Costs for quadriplegia were higher than all comparator conditions.

The first CEA demonstrated that use of saline fluid resuscitation in TBI was less costly and avoided more DALYs than albumin. The second CEA demonstrated that continuous positive airway pressure for sleep disorders in quadriplegia was cost effective according to WHO criterion.

Conclusions The financial costs and BoD associated with neurotrauma are substantial. Two clinical interventions developed in Australia with demonstrable health benefits are also cost-effective.