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COMMENT FROM THE EDITOR-IN-CHIEF

It is a great pleasure for me to thank the guest editors of this special issue, Nada Andelic, Juan Carlos Arango Lasprilla and Cecilie Roe for their timely proposal as well as for contacting suitable research groups to report their work and for making this special issue on traumatic brain injury possible. They have also been instrumental as referees along with one senior member of our Editorial Board and many TBI experts world wide. As usual, I have personally taken all decisions on acceptance of the contributions to this issue.

Malmö, August 6 , 2013
Bengt H. Sjölund
Professor, Editor-in-Chief

FOREWORD

THE COMPLEXITY OF TRAUMATIC BRAIN INJURY

Traumatic brain injury (TBI), defined as brain injury caused by external trauma, affects as many as 12% of adults worldwide (1). Recent years have seen an increasing focus on the burden of TBI on global healthcare resources. In the Scandinavian countries, effort has been directed into the development of guidelines for initial management of TBI and trauma triage (2–5). However, TBI frequently causes long-term physical, cognitive, behavioural and emotional impairments, along with difficulties with activities of daily living, community integration, employment, social life and family functioning, and partner relationships. Although TBI prevention, emergency treatment and acute care are important, effective delivery of longer-term services, including rehabilitation, vocational, educational and community support, is equally necessary and far more complex. Some level of rehabilitation is required for the majority of patients with TBI, and studies from different countries are required to provide "an accurate reflection of population needs, allowing better understanding of regional, national and international differences and needs in the area of brain injury rehabilitation" (6).

The Scandinavian countries are welfare states with fairly homogenous socio-demography and healthcare systems, with a long tradition of organization and resource allocation for comprehensive rehabilitation after TBI. The systematic processes for data collection in these areas mean that Scandinavian TBI populations can be studied in representative cohorts, making studies of international interest (7). Furthermore, in order to understand the extent of disability following TBI and to identify high-risk groups in Scandinavian countries, it is necessary to identify an accurate documentation of TBI management, outcomes and needs for healthcare services. Such knowledge may be helpful when developing injury prevention strategies as well improving acute care, rehabilitation, and long-term service delivery.

This Special Issue of JRM presents current TBI rehabilitation research trends in Sweden, Norway, Denmark and Finland. Rehabilitation research should be built on and integrate trends in acute TBI care. The review of the development of neurocritical care in university hospitals during a period of 50 years (Nordström et al) and management of mild traumatic brain injury (MTBI) in emergency departments (Carlsson & af Geijerstam) illustrates today's basis for TBI rehabilitation. Furthermore, an important advance in TBI research is the understanding of the pathophysiology behind brain injury development and recovery. As such, aspects of our new understanding of brain pathology after MTBI, using magnetic resonance (MR) imaging, are addressed by Lannsjö et al., and the developmental aspect of recovery in children with MTBI by Dahl & Emanuelson. The focus of subsequent two articles is on the recovery trajectories of severe TBI, assessing the impact of age and incidence, outcomes and implications for optimizing care pathways of disorders of consciousness after severe TBI (Roe et al. and Godbolt et al.).

In line with the long-term disability often resulting from TBI, the majority of articles in this issue address the symptoms and outcomes after mild-to-severe TBI in the first several years post-injury, as well as in the long-term, identifying factors that predict functional status, disability, health, health-related

quality of life and life satisfaction (Styrke et al,. Åhman et al., Larsson et al., Esbjörnsson et al., Sommer et al., Soberg et al., Stenberg et al., Forslund et al., Sigurdardottir et al. and Åhlander et al.). Taken together, these articles suggest that individuals with TBI experience a large number of problems and a great deal of variance in outcomes that may, in part, depend upon interactions between socio-demographic and injury-related characteristics, cognitive abilities and psychological adjustment.

The perspective of relatives is also of major importance in rehabilitation after severe and/or impairing injuries. Family support and caregiving influence recovery of individuals with TBI and, in addition, relatives and caregivers of individuals with TBI may experience changes in their own health. Two articles by Norup et al. discuss rehabilitation efforts directed at the TBI relatives and evaluate an acute neuropsychological intervention for family members of patients with severe brain injury.

Last, but not least, the current issue contains an article assessing the psychometric properties of a new measure for quality of life after TBI, the QOLIBRI, in the Finnish TBI population (Siponkoski et al.). The QOLIBRI adds important information to the standard clinical procedure, as it brings out the patient's subjective experience and values in a structured, comprehensive and practical manner.

It is our goal that the articles in this issue will contribute to an increasing recognition of recovery, outcomes, and needs of individuals with TBI. Due to its complexity, the rehabilitation of patients with TBI should involve a continuum of care, from the acute, inpatient stage to reintegration in the community. Only through an integrated and systematic effort will we be able to achieve optimal results in reducing symptoms, improving functional capacity and enhancing quality of life for individuals affected by TBI.

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