

# Improving the Management of Brain Injuries in Malaysian Hospitals

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The 2010 data on accidental brain injuries indicated that there were 6872 deaths out of 28,269 injuries that year. Most were males, in the age brackets of 16 years to 30 years. 4,035 died immediately at the accident site and the rest were managed in both Government and private hospitals<sup>1</sup>. Despite motor vehicle accidents ranked as the third commonest cause of hospitalizations in Malaysian hospitals in 2008<sup>2</sup> and the ninth commonest cause of death in the country from 2006 till 2008<sup>3,4</sup>, according to Ministry of Health of Malaysia (MOH) and the World Health Organization (WHO), the number of publications about traumatic brain injury, especially its prevention and management are lacking. However, publications reported in the Medical Journal of Malaysia from West Malaysia<sup>5-8</sup> and one from East Malaysia<sup>9</sup> indicate that these patients are being managed within the norms of international standards. The outcome of these patients varies from hospital to hospital and the type of patients being admitted.

Of special interest, the number of non accidental injuries appears to be on the rise and medical practitioners have to be sharp to pick up differences between “falls” and “abuses” in children with the help of detailed physical examination as well as radiological<sup>8</sup> imaging. In the series of Hafiz and Saffari 2011, one should note the tell tale “important” signs for abused children: retinal hemorrhages as well as seizures that was significantly more common in the non-accidental TBI group (93.5%)<sup>8</sup>.

Another matter of importance is the number of dedicated intensive care beds in both parts of Malaysia needs to increase to meet the demands of the number of RTA patients with TBI. A recent study has indicated the advantages of intensive care compared to the general ward in terms of decreasing poor outcome for example death<sup>6,9</sup>. Tertiary centers in Malaysia with the state of the art equipment for the management of traumatic brain injury may decrease mortality and be cost effective as well in the long run<sup>5,6</sup>. Not all hospitals have dedicated Intensive Care Units for neurological ailments. The study by Sim *et al* 2011 showed that occasionally ward based management has produced benefits to the patients despite

working in difficult circumstances. The problems faced in the general wards include having to share oxymeters for ventilated patients, inability to do invasive monitoring, a nurse-patients ratio of 1:6 and inability to provide treatments based on intracranial pressure (ICP) and cerebral perfusion pressure (CPP) protocol. These are deficiencies that need to be overcome<sup>9</sup>. Increasing the number of neurosurgeons and neurocritical specialist in Malaysia to manage a wide range of neurosurgical conditions will in the long run improve the number of patients with poor outcomes. This will lead Malaysia to an era where multidisciplinary care is mandatory for the rehabilitation of these patients so that they will not be a burden to society.

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