

An overview of Spinal Cord Injury admissions to RPH 2010 - 2019

The Royal Perth Hospital Trauma Registry (RPH-TR) has collected and reported on injury data since August 1994. It contributes to a State Trauma Registry database, combining data from all Perth tertiary hospitals and Joondalup Health Campus.

Included on the RPH-TR are all trauma patients presenting to RPH for treatment within seven days of their injury and who were hospitalised for >24hrs, as well as all trauma-related deaths regardless of hospital length of stay.

Injuries are categorised into Minor (Injury Severity Score (ISS) <16); and Major (ISS >15)

Spinal Cord Injury (SCI) is an incomplete or complete cord syndrome as a result of cord contusion or laceration, documented by X-ray, CT scan, MRI or Autopsy. RPH is the adult State Spinal referral centre for Western Australia, and therefore the data collected through the RPH-TR is a true representation of the adult SCI patients who survive their initial trauma event to admission to hospital.

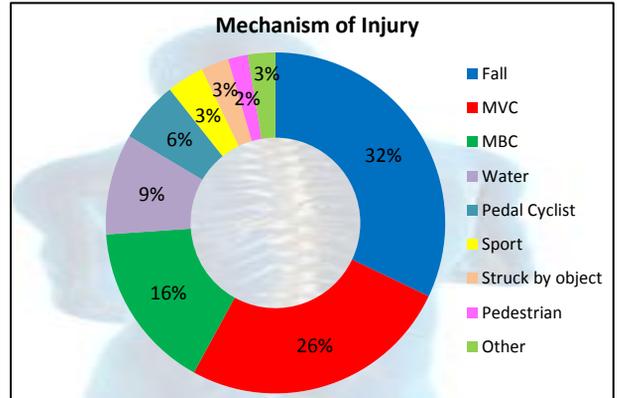
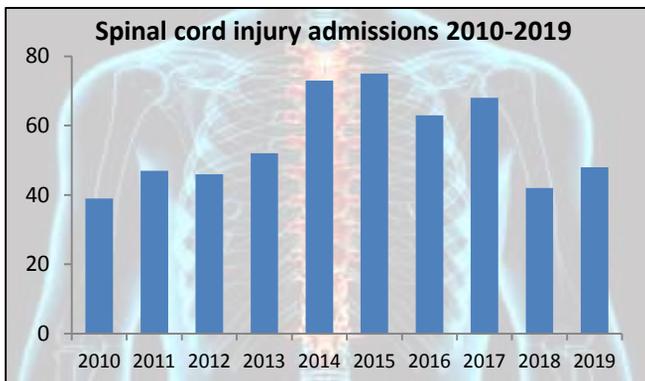
From 2010 to 2019 there was a steady increase in the number of admissions of people who sustained a SCI, reaching a peak of 75 admissions in 2015. This reduced to 48 in 2019.

Of the 533 patients with a SCI that were admitted to RPH from 2010 to 2019:

- 432 (81.1%) were male, 101 (18.9%) were female.
- 147 (27.6%) SCI's involved alcohol and/or other drugs.
- 171 (32.1%) cases were from falls and 19 (3.6%) were from playing sports.

Of the 16 – 30 age range, there were 166 patients with a SCI:

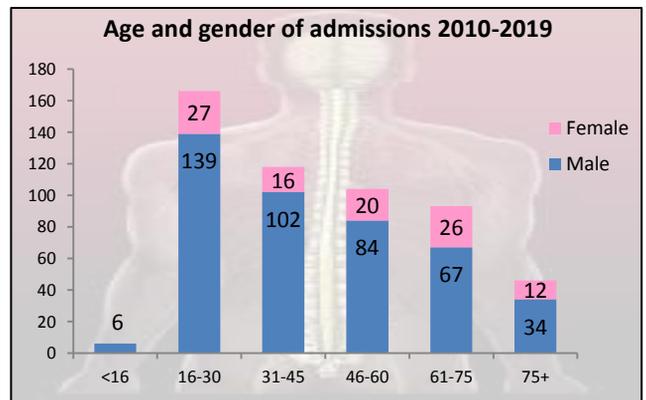
- 47 (28.37%) of these involved alcohol and/or drugs
- 64 (38.6%) of injuries were the result of a Motor Vehicle Crash (MVC)
- 40 (24.1%) were due to Motorbike Crash (MBC)



In 2019, there were 48 SCI's and the most significant cause of trauma was falls, with 25 cases. Of those, 10 involved falling from ladders/roofs or stairs. The next most significant causes were 6 MVC and 5 each from MBC and water-related activities at the beach.

The primary mechanism of injury for patients with a SCI aged over 60 was fall, whilst engaging in activities such as gardening, walking, repairing roofs or cleaning gutters.

Of the 533 patients that were admitted to Royal Perth Hospital, there was an average acute length of stay (LOS) at RPH of 16.9 days. Of these patients: 348 (65.3%) were transferred to Fiona Stanley Hospital, or other step down facility, for rehabilitation 107 (20.1%) were discharged home 45 (8.4%) died from other injuries



This data shows that Spinal Cord Injury can occur at any age, with permanent and devastating effects. Prevention of spinal cord injuries is a challenge. However, by adopting some general safety principles such as avoidance of drugs and alcohol, and use of appropriate safety measures during such high risk activities, may make them less likely.