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Original Article

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Inception of an Australian Spine Trauma Registry: The Minimum Dataset

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Abstract

Background The establishment of a spine trauma registry collecting both spine column and spinal cord data should improve the evidential basis for clinical decisions. This is a report on the pilot of a spine trauma registry including development of a minimum dataset.

Methods A minimum dataset consisting of 56 data items was created using the modified Delphi technique. A pilot study was performed on 104 consecutive spine trauma patients recruited by the Victorian Orthopaedic Trauma Outcomes Registry (VOTOR). Data analysis and collection methodology were reviewed to determine its feasibility.

Results Minimum dataset collection aided by a dataset dictionary was uncomplicated (average of 5 minutes per patient). Data analysis revealed three significant findings: (1) a peak in the 40 to 60 years age group; (2) premorbid functional independence in the majority of patients; and (3) significant proportion being on antiplatelet or anticoagulation medications. Of the 141 traumatic spine fractures, the thoracolumbar segment was the most frequent site of injury. Most were neurologically intact (89%). Our study group had satisfactory 6-month patient-reported outcomes.

Conclusion The minimum dataset had high completion rates, was practical and feasible to collect. This pilot study is the basis for the development of a spine trauma registry at the Level 1 trauma center.

Keywords

registry - spine trauma - minimum dataset - Victorian Orthopaedic Trauma Outcomes Registry

成立之初的澳洲脊柱創傷登記冊：最小數據集

背景 成立脊椎創傷登記冊收集包括脊柱和脊髓數據以提高臨床決策的證據基礎。這個報告是關於這試驗性的脊椎創傷登記，包括發展最小資料庫。

方法最小資料庫包括 56 個使用德爾菲研究法修改後的設計項目。連續 104 名以維多利亞女王骨科創傷結果登記冊（VOTOR）招募的脊柱創傷患者進行試驗性研究。數據分析和收集方法進行了審查，以確定其可行性。

結果在資料庫字典的幫助下，收集最小資料庫是簡單的（平均每名患者 5 分鐘）。數據分析顯示三個重大發現：（1）在 40 至 60 歲年齡組別有一個高峰;（2）發病前大部份患者都是功能獨立的; 及（3）抗血小板或抗凝藥物的顯著比例。 在 141 創傷性脊柱骨折中，胸腰段是最常見的損傷部位。大多數人的神經功能未受損傷（89％）。我們的研究組別有令人滿意的 6 個月病人報告結果。

結論 最小資料庫擁有高完成率，實際和可行收集的。這項試驗研究是在一級創傷中心發展脊椎創傷登記冊的基礎。