

Dr Paul SMITH and Ms Jelena GISSANE

Paul Smith¹, Jelena Gissane² and Gavel Kulisiewicz². ¹The Canberra Hospital & John James Memorial Hospital, ²The Canberra Hospital

Improving Health Outcomes For Patients With Fractured Neck Of Femur By Protocol Development And Education.

Abstract

Over 250 patients older than 50 yrs with fractures of the neck of femur are treated annually at The Canberra Hospital (TCH), consuming significant hospital and patient resources. When compared to other hospitals in the South Eastern Area Health Benchmarking Consortium, The Canberra Hospital has had an average length of stay significantly longer than the benchmark. Issues contributing to delay in early management in the care of these patients include waiting queue for surgery, perioperative assessment and management of fluid and electrolyte status.

Aims: To improve patient outcomes by reducing delays to surgery and promoting more efficient perioperative assessment and management of fluid and electrolyte status.

Methods: A prospective study of all patients over 50 admitted with diagnosis of fractured neck of femur was carried out at TCH for a 12 month period. Baseline data was collected for a period of six months. We measured clinical factors including time to theatre; preoperative fluid resuscitation; length of stay; and morbidity. A protocol was then introduced according to agreed best practice dealing with the issues identified in baseline data. Education of staff followed in the major treating areas, Emergency Department and Orthopaedics ward. Following this a further six months data were collected to assess the effectiveness of the intervention.

Results: Over the preceding 12 month period to this study length of stay following fractured neck of femur at TCH was 15.39 days compared to the benchmark of 12.94 days.

In the initial 6/12 period 116 patients were admitted to the study. Baseline data demonstrated: average length of stay 12.75 days (from ED to discharge); average time to theatre 35hrs; and variable fluid resuscitation for the first 24hrs averaging 1668.4 mls (range: 0-4000mls). The in-hospital death rate in this patient group was 9.5 %.

In the second six month period, following protocol implementation, improvements were noted as greatest in fluid resuscitation, with smaller improvements in length of stay and time to theatre. Mortality rate was not significantly different.

Conclusion: The management of patients with fractured neck of femur is a complex issue involving multiple teams and steps in the treatment process. Implementation of a program of outcomes assessment and evaluation of management in its first phase has led to improvement in initial management of these patients and reduced length of stay. Clearly further changes are necessary to achieve the goals of timely assessment and early surgical intervention. Reducing the in-hospital death rate remains problematic, with a high proportion of patients with high anaesthetic risk (ASA>3).

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