Analysis of the Management of Head Injuries at the Victoria Infirmary, Glasgow with Respect to the SIGN Guidelines

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Abstract

This is a retrospective analysis of 84 patients who presented to the Victoria Infirmary, Glasgow with the initial complaint of head injury between the calendar months of August 2005 and August 2006.

84 patients were analysed. 96.4% had a GCS documented on arrival, 92% were admitted for observation, the mean age was 52.8 years, 71.4% were male and alcohol was consumed in 73%. 83.3% had a comprehensive assessment documented, 88.1% were appropriately investigated, 95.2% followed guidelines regarding the necessity to be admitted or discharged, 96.4% followed guidelines regarding the need for a neurosurgical assessment or transfer, 83.3% had appropriate instructions with regard to further management following transfer to the ward documented, 20.2% of those discharged following assessment were documented as having been given instructions, 70.2% had their progress in hospital properly documented, 5.95% had untoward incidents during their stay, 5.95% suffered complications as a result of their head injury and 22.6% of patients re-presented within the year with a further head injury.

Introduction

The Scottish Intercollegiate Guidelines Network (SIGN) has produced a set of guidelines entitled “Early Management of Patients with a Head Injury”. These guidelines recommend good clinical practise for those working in the Accident & Emergency department, and specifically the indications for a Computerised Tomography (CT) scan. This article aims to analyse the acute assessment and management of patients presenting to the A&E department and their correlation with the SIGN guidelines.

SIGN published guidelines for the early management of children and adults presenting with head injury in 2000. With over 150,000 patients being admitted to hospitals in the UK per year with head injuries, the proposed indicators for CT scanning in the SIGN guidelines have a number of practise and resource implications. It is important to adequately assess those presenting to A&E and identify early those requiring CT scans. It is also important from a resource point of view to identify those less at risk of complications and, if indicated to discharge them prior to admission to the ward in order that hospital beds are not inappropriately filled.

Method

A retrospective analysis was undertaken at the Victoria Infirmary, Glasgow which aimed to answer 8 main questions:

1. Has a comprehensive assessment been documented
2. Have guidelines been followed with regard to investigations
3. Have guidelines been followed with regard to whether the patient should be admitted or discharged
4. Have guidelines with regard to referral for a neurosurgical consultation or transfer been followed
5. Have clear and appropriate instructions been given with regard to the management of the patient following transfer to the ward
6. Have clear and appropriate instructions been given to patients being discharged following assessment
7. Has progress in hospital been appropriately documented
8. Is there evidence of untoward incidents in patient management

Information was collected on 84 patients who presented with the initial complaint of head injury between the calendar months of August 2005 and August 2006. These patients were selected at random and the information was taken from the case notes.

In addition to the criteria outlined by SIGN, data was taken with respect to age, sex, hospital number, date of attendance, complications and readmissions.

Results
84 patients were analysed. 96.4% had a GCS documented on arrival, 92% were admitted for observation, the mean age was 52.8 years, 71.4% were male and alcohol was consumed in 73%. 83.3% had a comprehensive assessment documented, 88.1% were appropriately investigated, 95.2% followed guidelines regarding the necessity to be admitted or discharged, 96.4% followed guidelines regarding the need for a neurosurgical assessment or transfer, 83.3% had appropriate instructions with regard to further management following transfer to the ward documented, 20.2% of those discharged following assessment were documented as having been given instructions, 70.2% had their progress in hospital properly documented, 5.95% had untoward incidents during their stay. 5.95% suffered complications as a result of their head injury and 22.6% of patients re-presented within the year with a further head injury.

Discussion

Overall the assessment of patients and correlation of investigations indicated with guidelines set out by SIGN was very good. Documentation is paramount in the modern hospital environment and this was the main area highlighted for improvement. This is especially important with regard to the management instructions written in the notes by the medical staff for the nurses following transfer of the patient from A&E to the ward and in the head injury advice leaflet which should be given to patients discharged from hospital.

In the Victoria Infirmary, patients presenting with head injury are managed in the Orthopaedic wards. Many feel these patients are best observed in a designated area close to A&E where there is ready access to imaging. As shown earlier only 3.7% of patients were properly observed according to the SIGN guidelines. There are many reasons for this. Out of normal working hours, the number of nursing staff is reduced and obviously when patients are transferred from A&E to the ward or are going for imaging observations are not carried out – this can skew the results when looking at the charts in the case records.

The number of patients presenting whilst intoxicated was surprisingly high and this obviously makes assessment of the patient in the acute setting more difficult.

More recently A&E have adopted specially designed forms for patients with head injuries which outline the assessment required and the salient points in the history which should be noted. These follow the SIGN guidelines and these are also on display in the department which facilitates the more junior staff.

The complications suffered by the 5 patients included one facial nerve palsy, one subarachnoid haemorrhage, two subdural haematomas and one contusion.

References

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