Management of minor head injuries by non-specialists

Editor,—The management of patients with a minor head injury (MHI)—that is, a Glasgow coma scale score of 3–15—once the decision has been made to admit them, is relatively simple and straightforward. The value of having a neurosurgical specialist input could be looked upon as a luxury. In Nottingham, a co-located accident and emergency (A&E) department with a regional neurosurgical unit is often the case that the A&E beds for observation become full and the local arrangements to the regional neurosurgical unit must admit patients under their care. This use of this resource for this condition has been questioned and a retrospective review of patients with a MHI admitted to this hospital was undertaken to determine the actual involvement of neurosurgery in the management of these cases in a typical teaching hospital.

For the calendar year of 1996, 618 adults (>16 years of age) were admitted with a diagnosis of MHI for observation, of whom 89 (14.4%) were referred to the regional surgical unit (M:F = 63:26; 70.8%:29.2%). Thirty-seven (42%) had other injuries, some of which would require admission in any case, for example maxillofacial or spinal fracture in eight (9%), their MHI being truly minor.

The A&E referral was made because of no A&E beds in 47 (53%), was not stated at all on the admission card in 22 (25%), was for “social reasons” in four (4%), and in two (2%) was because they had been under a neurosurgical surgeon previously for unrelated or unrelated conditions. Only two of 24 (8%) patients who had a computed tomography during their admission had anything abnormal detected, neither of whom needed any intervention beyond simple observation.

The same survey carried out in the same hospital in 1999 revealed, using a randomly sampled group of 90 patients with MHI, that eight (9%) were referred to the regional neurosurgical unit, none of whom needed any active intervention.

Visual assessment of blood loss by accident and emergency staff

Editor,—Birkinshaw et al have recently demonstrated that in reconstructed scenarios using manikins, 80% of estimates of blood loss by paramedics and technicians were underestimated, and for a blood loss of 3 litres the mean underestimate was 60%.1 It is also important that staff in the accident and emergency (A&E) department can assess blood loss that is continuing within the department and also assess loss in clothing as it is removed, as it is in Advanced Trauma Life Support courses.2

We undertook a study whereby a measured volume (450 ml) of expired human whole blood was spilled over some clothing on a non-absorbent surface. After five minutes this scene was photographed. The photograph was shown to the staff of the A&E department and they were asked to estimate the volume of blood shown in the photograph.

Forty A&E nurses and five senior house officers (SHOs) were surveyed. Their estimates of blood loss are shown in Table 1.

This demonstrates that staff in A&E show a wide variation in the accuracy of their estimations of blood loss and would not be reliable for clinical decision making. In contrast to the pre-hospital study, A&E staff appear to overestimate blood loss. None of the staff had ever been shown pictures of measured blood loss as part of their training. There is a need to train A&E staff in the assessment of external blood loss.

Table 1 A&E staff’s estimate of volume of a measured 450 ml blood loss

<table>
<thead>
<tr>
<th>Nurse</th>
<th>No surveyed</th>
<th>Mean</th>
<th>Maximum</th>
<th>Minimum</th>
<th>1st quartile</th>
<th>3rd quartile</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>577.6</td>
<td>3000</td>
<td>50</td>
<td>200</td>
<td>681</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>633.9</td>
<td>2500</td>
<td>30</td>
<td>250</td>
<td>575</td>
<td></td>
</tr>
</tbody>
</table>
Transtracheal jet ventilation and the completely obstructed airway: incorporating an active expiratory phase.

G Kessell

doi: 10.1136/emj.16.5.390-b

Updated information and services can be found at:
http://emj.bmj.com/content/16/5/390.3.citation

**Email alerting service**

Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

**Notes**

To request permissions go to:
http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to:
http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/