A&E beds in beyond simple observation.

Fracture minor.

Of minor head cases any case, for observation become looked simple. 470 Letters, Notice, Correction. 390

We therefore disappointing to see these negative BETs labelled as unhelpful, potentially misleading, or as a cause for misunderstanding. Rather they offer an opportunity for re-examining our ideas about the treatment of these conditions, and allow us to decide whether well designed studies that really answer the questions posed are needed.

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 13–15—once the decision has been made to admit them, is relatively simple and straightforward. The value of having neurological specialist input could be looked upon as a luxury. In Nottingham there is a co-located accident and emergency (A&E) department with a regional neurological unit. It is often the case that the A&E beds for observation become full and the local arrangements for the regional neurological unit may admit the patient under their care. The case 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 neurological unit (M:F = 63:26; 70.8%:29.2%). Thirty seven (42%) had other injuries, some of which would determine the actual involvement of neurosurgery in the management of these cases in a typical teaching hospital. The same survey carried out in the same hospital in 1992 revealed, using a randomly acquired sample of 90 patients with MHI, that eight (9%) were referred to the regional neurological unit, none of whom needed any active intervention.

One of the authors (NB) carried out a similar review of patients admitted under general surgeons with MHI for the year 1991 in a different large general hospital with a co-located A&E department (at that time a trial trauma centre) and subregional neurosurgical unit. Of 53 patients admitted with MHI only four (7.5%) required a neurosurgical opinion and none required active intervention.

These three temporally separate studies in two different, but similar, hospitals found a total of 761 patients admitted with MHI, none of whom required neurosurgery. It is our contention that no patients with MHI need be admitted under the care of neurosurgeons in this country and that patients who need specialist neurological input can be identified by neurological observations in a non-specialist setting and referred for advice or action accordingly.

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We undertook a study whereby a measured volume (450 ml) of expired human whole blood was spit over some clothing on a non-absorbent surface. After five minutes this scene was photographed. The photograph was shown to 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 18 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 estimates of blood loss and it is not 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.

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<th>Nurse</th>
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Visual assessment of blood loss by accident and emergency staff

EDITOR.—Birkinhshaw et al have recently demonstrated that in reconstructed scenarios using manikins, 80% of estimates of blood loss by paramedics and technicians were underestimates, 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 is stressed in Advanced Trauma Life Support courses.1

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