

(normal therapeutic range 15–40 mg/l, serious toxicity 100 mg/l).¹ He was treated with multiple oral doses of activated charcoal. His signs and symptoms settled after 72 hours and he was discharged.

Doctors should be aware that access to a wide variety of "prescription only" drugs is now easy and unrestricted. If this continues we can expect to see many more overdoses, both intentional and accidental, involving unusual drugs and in a population not previously associated with drug overdose.

Furthermore, the internet has now broken down the protective role of both the pharmacist and the doctor in controlling access to prescription only medication. We propose that access to internet sites marketing prescription only drugs be limited in the same way that internet service providers block access to pornographic sites.

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1 Doyon S. Anticonvulsants. In: Goldfrank JR, Flomenbaum NE, Lewin NA, *et al*, eds. *Goldfrank's toxicological emergencies*. 6th Ed. Connecticut: Appleton and Lange, 1998: 689–98.

Excessive morphine requirements after pre-hospital nalbuphine analgesia

EDITOR.—We read with interest the paper by Houlihan *et al* in which they presented 10 cases where patients required excessive morphine to control their painful symptoms after the administration of pre-hospital nalbuphine analgesia.¹

We agree with the statements made in the paper regarding the pharmacokinetics and dynamics of nalbuphine in relation to its effects on the μ and κ receptor subtypes. Theoretically it is logical that this agent would have implications on subsequent dosing using μ agonist opioid analgesics, and anecdotally colleagues have reported difficulties in controlling painful symptoms in patients who have received parenteral nalbuphine administered in the pre-hospital setting.

With this in mind two years ago we undertook a pilot study of 50 patients who had received parenteral nalbuphine analgesia in the pre-hospital setting. Following a list of inclusion and exclusion criteria patients were recruited and assessed on arrival in the accident and emergency (A&E) department

and asked to report a verbal pain score. If they required further analgesia the patients received equipotent doses of either morphine or diamorphine. Subsequent pain scoring was done at 30 minutes and any further analgesia required was documented.

A control group of 50 patients was recruited of similar age and case mix who had not received parenteral nalbuphine. The results when analysed were tested using the Mann-Whitney U test. There was no significant difference between the pain scores on arrival in the department between the control and nalbuphine group and furthermore the decline in pain scores after the adjuvant morphine or diamorphine in the department was significantly greater in the group who had not received nalbuphine.

Accepting that this study at the time was largely observational and that flaws existed in the methodology we did, however, feel there was a question that warranted putting under the scrutiny of a randomised controlled trial. The drug tramadol, a weak pure μ agonist analgesic (which also has analgesic properties mediated via serotonergic and noradrenergic pathways in the central nervous system) seemed a logical drug with which to compare nalbuphine. The side effect profiles of the two drugs are similar and like nalbuphine tramadol does not have a controlled drug status. We set up and obtained ethical approval to carry out a double blind randomised controlled study looking at the analgesic properties of the two drugs when administered in the pre-hospital setting and aimed to compare the ease with which painful symptoms could be controlled subsequently in the A&E department.

After obtaining ethical approval and organising the blinding and randomisation aspects of the study we have faced significant barriers in attempting to implement the study in the pre-hospital setting. Despite correspondence with the local Paramedic Steering Committee, the Joint Colleges Ambulance Liaison Committee and the head of Wiltshire Ambulance Service, we have yet been unable to take this trial any further forward as the ambulance service feel unable to administer tramadol as it is a drug that is not included on their list of agents which they are legally allowed to administer.

We would be grateful to hear from any physicians who have faced similar problems in setting up pre-hospital randomised controlled trials involving new drugs. We would be indebted to anyone who could furnish us with the name and address for correspondence of the individual or body who could facilitate this aspect of the trial such that it could start as soon as possible. Having read the paper by

Houlihan *et al* it is clear that we are not the only two clinicians who feel that this issue should be drawn to a scientific conclusion.

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1 Houlihan KPG, Mitchell RG, Flapan AD, *et al*. Excessive morphine requirements after pre-hospital nalbuphine analgesia. *J Accid Emerg Med* 1999;16:29–31.

NOTICE

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18–19 November 1999, Offley Place, Herts

This is an opportunity to to improve teaching and presentation skills and understand basic educational theory in a supportive setting.

Further details: Miss Cilla Reid, Accident and Emergency Department, Lister Hospital, Coreys Mill Lane, Stevenage, Herts SG1 4AB (tel: 01438 314333 bleep 1048, fax: 01438 781234) or Jan Caspell, coordinator (tel: 01438 781175, direct line).

Correction

We regret that an error occurred in the emergency casebook by M J Clancy published in July (Persistent "haematoma". *J Accid Emerg Med* 1999;16:303). Mr Clancy's two coauthors were inadvertently omitted from the published version. The authors should have read: M J Clancy (Emergency Department), M Sampson (Department of Radiology), S Lambert (Department of Trauma and Orthopaedics), all at Southampton General Hospital.