

## LETTERS TO THE EDITOR

### Anaesthetic training in accident and emergency

EDITOR,—I read with interest the comments of Boyle *et al* regarding anaesthetic training for accident and emergency (A&E) specialist registrars. They suggest that there is a definite advantage of spending six months as a “true” anaesthetic SHO as part of the A&E specialist registrar scheme, rather than as a supernumerary extra in theatre. As someone who initially undertook a training in anaesthesia with a view to entering higher training in A&E via this route, I would agree that it offers much more than the opportunity to become confident and competent at advanced airway management in the relatively controlled theatre setting. Training in anaesthesia offers the chance to gain many other skills that are extremely useful to the A&E trainee, particularly in the resuscitation setting, including the assessment and management of critically ill patients, providing ventilatory and circulatory support where necessary, the use of anaesthetic equipment, invasive haemodynamic monitoring techniques and transportation of critically ill patients. The opportunity to become proficient at the various regional anaesthetic techniques and to gain an understanding of pain management is also very relevant to A&E practice.

The possession of the FRCA, which requires at least 2.5 years of training in anaesthesia, is one of the established ways to enter the A&E specialist registrar grade. Surprisingly, in the current membership list of the British Association of A&E Medicine, only 60 (0.05%) members possess the DA (or old primary FRCA), with only 12 (0.01%) possessing the FRCA or equivalent.<sup>2</sup> As our specialty continues to develop and accepts more responsibility for early advanced airway management, ventilatory and circulatory support and rapid sequence inductions, both within the A&E department and in the pre-hospital setting, I feel that we should encourage more of our junior trainees interested in a career in A&E to enter the specialist registrar grade via this route.

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1 Boyle AA, Florance R, Mackenzie R. Anaesthetic training for specialist registrars in accident and emergency. *J Accid Emerg Med* 2000;17:75.

2 British Association of Accident and Emergency Medicine directory 1999/2000. Blackpool: BOE Publishing.

### Rapid sequence intubation

EDITOR,—All emergency medicine specialists should be competent in rapid sequence intubation (RSI). We thank the authors for their commitment to training this essential skill.<sup>1</sup>

The simulator experience with video playback could be an extremely powerful teaching aid for RSI and its potential attendant complications. Currently, only a few accident and

emergency (A&E) departments in the United Kingdom have access to this expensive tool.

RSI is a skill that is used with short notice and requires confidence and competence to perform appropriately. The cognitive and psychomotor skills needed are unlikely to be retained from a single course. RSI should therefore be taught as part of an integrated training programme. This should include prolonged exposure to intubations during an anaesthetic attachment, a short course similar to the National Emergency Airway Management Course from the USA covering core knowledge, and a process of revalidation and quality assurance.

We feel that the use of simulators would not be practicable for the primary training of the large numbers of UK A&E specialists in RSI. The use of simulators could, however, play a vital part in the regular appraisal and revalidation of individual practitioners once they have completed their training programme. This revalidation of skills and the regular audit of results should form the basis for the essential quality assurance, which this programme would need.

In summary, if we follow the airline pilot analogy, training occurs in the classroom and in the air, revalidation is the work of the simulator.

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1 Ellis C, Hughes G. Use of human patient simulation to teach emergency medicine trainees advanced airway skills. *J Accid Emerg Med* 1999;16:395–9.

### High level simulator

EDITOR,—We were delighted to read of the use of a high level simulator in emergency department training.<sup>1</sup>

From January 2000, we in the south west have secured three years of funding for the use of the same METI-HPS simulator for specialist registrar training at the Bristol Simulation Centre ([www.bris.ac.uk/Depts/BMSC/](http://www.bris.ac.uk/Depts/BMSC/)). Like the Wellington group, we face the challenge of creating realistic scenarios of critically ill and injured patients for the purpose of formative assessment. Clear advantages of the high level simulator over traditional advanced life support group scenario teaching include:

- real time, accurate audio and visual monitoring responses to clinical and pharmacological interventions
- the use of videotape assisted hot review
- interactive physiology and pharmacology tuition, particularly in regards to the use of inotropes, anti-arrhythmics, sedatives, opioids and induction agents.

The additional features available on the METI-HPS were perhaps a little understated in the Wellington paper. Voice simulation is standard, and has played a key part in thrombolysis study days run at the Bristol Medical Simulation Centre. The mannequin is also able to simulate needle decompression of a tension pneumothorax (with audible hiss) and successful pericardiocentesis of a cardiac tam-

ponade (with “blood” aspiration). It is able to blink and reproduce unilateral pupillary signs. A child mannequin is available, and a neonatal one is being developed.

On the other hand, at present the simulated wheezing is not convincing in asthma scenarios, and the mannequin cannot simulate grand mal fitting, colour change (pallor or cyanosis) or perspiration.

Like the Wellington study day, the south west simulator programme for trainees is an innovative extension of traditional emergency department training. We see it as an evolving project that will be carefully evaluated from both the trainer and trainee perspective. A further use of this technology already allows online access to live training sessions broadcast from the centre via satellite ([www.multi-med.co.uk](http://www.multi-med.co.uk)) to user terminals installed at nine hospital sites in the UK.

We would welcome correspondence nationally and internationally.

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1 Ellis C, Hughes G. Use of human patient simulation to teach emergency medicine trainees advanced airway skills. *J Accid Emerg Med* 1999;16:395–9.

### Emergency cranial computed tomography

EDITOR,—Harris *et al*<sup>1</sup> apply Rothrock's criteria<sup>2</sup> to a UK population of non-trauma patients. Their abstract concludes “Simple criteria can be usefully applied to patients presenting to an A&E department in this country to target patients most likely to have clinically significant findings on urgent cranial computed tomography”. We believe that the method and findings of the study do not justify the change in practice implied by this conclusion.

Our methodological concerns are threefold. Information gathered retrospectively from notes and request forms casts doubt over the accuracy and completeness of the symptoms and signs (particularly the symptom of nausea). The inclusion criterion is ill defined (patients who are referred for computed tomography). There is no explanation for the inclusion of nausea (it is not one of Rothrock's original criteria).

There are also theoretical objections. To be useful, a clinical filter must be applied to unselected patients and include criteria that have a high inter-observer reliability. There is no logic in applying a clinical filter after the decision to investigate has been made.

Furthermore, both studies acknowledge that they do not tackle the problem of subarachnoid haemorrhage in young patients presenting with isolated headache. Surely this is a major consideration in formulating any criteria for computed tomography (CT)?

We applied Harris' criteria to our prospective series of patients attending A&E with non-traumatic headache (248 patients). Seventy two CT scans would have been performed. The criteria would have missed three (1.2%) patients with an abnormal CT scan.

Judging from the differing rates of CT abnormality in the two studies (35% *v* 6%), CT rates in the UK are well below those in the USA. Given that we accept a detection rate of 1 of 80 for patients with skull fracture and GCS 15, perhaps we should be scanning more patients with non-traumatic headache not fewer.

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- 1 Harris JE, Draper HL, Rhodes AI, *et al*. High yield criteria for emergency cranial computed tomography in adult patients with no history of head injury. *J Accid Emerg Med* 2000;17:15-17.
- 2 Rothrock SG, Buchanan C, Green SC, *et al*. Cranial computed tomography in the emergency evaluation of adult patients without a recent history of head trauma: a prospective analysis. *Acad Emerg Med* 1997;4:654-61.

### The authors reply

We are pleased that our study has prompted discussion about the use of clinical guidelines for emergency head computed tomography (CT) in the non-trauma population. This is a developing area where little evidence exists.

It was interesting to hear that our modified criteria (any of: (1) GCS<14, (2) focal neurology and (3) headache with nausea or vomiting) would have missed three patients with abnormal CT findings. It is unclear whether these were young patients with subarachnoid haemorrhage who, when presenting with isolated headache, we have already acknowledged as a problem population.

Our modified criteria are simple, common-sense suggestions that reflect current practice regarding requesting CT from the accident and emergency department. We acknowledge the retrospective nature of our trial. Having now demonstrated that the criteria could be useful, prospective validation is necessary.

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### The irritable hip

EDITOR.—As Mattick *et al*<sup>1</sup> explain, the irritable hip is a common presentation that requires the exclusion of serious pathology. The protocol described allows appropriate outpatient management of many children. The text describes how no one single investigation or examination finding is predictive of septic arthritis. We were however disappointed to see a “blanket” approach to investigations with all children undergoing blood tests.

History and examination are more useful than any investigation. If a child has been unwell, whether feverish or not, septic arthritis should be considered and appropriate investigation and treatment instituted.

Furthermore, in a well child with an isolated painful hip, structural problems need to be excluded with imaging but we have not found blood tests helpful. These are the factors that we use in the individual evaluation of a child with a painful hip in our emergency department.

We appreciate that the comprehensive approach by Mattick *et al* is aimed at detecting serious disorders but do not agree that blood tests are necessary for every limping child.

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- 1 Mattick A, Turner A, Ferguson J, *et al*. Seven year follow up of children presenting to the accident and emergency department with irritable hip. *J Accid Emerg Med* 1999;16:345-7.

### The authors reply

We welcome the interest shown by Bridges *et al* in our paper.<sup>1</sup> They state that a history and clinical examination are sufficient to select those children, presenting with atraumatic limp, who require further inpatient investigations. They suggest that the routine screening of blood is unnecessary for such children who are discharged, and imply that we are subjecting children to needless venepuncture. However, no objective evidence is offered to substantiate their statement.

In addition, Bridges *et al* misquote our paper. Our paper states “no one clinical finding or investigation can be used in managing the limping child who attends the A&E department”. Our protocol was not aimed at identifying “septic arthritis”, but identifying children who may be safely discharged home. Our paper demonstrates that this protocol does not appear to miss significant pathology in those children who are discharged. While we accept that our protocol has the potential to be refined, making it more sensitive and specific, we are unaware of any robust published evidence demonstrating history and clinical examination alone as being reliable at excluding significant pathology in children presenting with hip pathology.

However, there is evidence demonstrating the pitfalls of relying on history and clinical examination alone. Taylor *et al*<sup>2</sup> reported in a series of 509 cases of “irritable hip” that history is unreliable in this condition. A recent study<sup>3</sup> identified four cases of occult osteomyelitis, at various sites in the distal limb, presenting to a paediatric A&E department with atraumatic limp. Clinical findings were unreliable with further investigation and the subsequent diagnosis resulting from the identification of a markedly increased erythrocyte sedimentation rate. Finally, Aston<sup>4</sup> reported identification of neuroblastoma by detection of anaemia on investigation of the limping child.

Therefore, we would advise caution in discharging children presenting to A&E departments with atraumatic limp based on history, clinical examination and imaging alone.

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- 1 Mattick A, Turner A, Ferguson J, *et al*. Seven year follow up of children presenting to the accident and emergency department with irritable hip. *J Accid Emerg Med* 1999;16:345-7.
- 2 Taylor GR, Clarke NMP. Management of irritable hip: a review of hospital admission policy. *Arch Dis Child* 1994;71:59-63.
- 3 Fischer SU, Beattie TF. The limping child: epidemiology, assessment and outcome. *J Bone Joint Surg Br* 1999;81-B:1029-34.
- 4 Aston JW Jr. Pediatric update: 16. The orthopaedic presentation of neuroblastoma. *Orthopaedic Review* 1990;19:929-32.

### Topical anaesthesia use in the management of children's lacerations, a postal survey

EDITOR.—The suturing of lacerations of children is often difficult. Infiltration with 1% plain lignocaine (lidocaine) is commonly used to make the suturing more comfortable. This infiltration may cause pain and render the child uncooperative for the rest of the procedure.

Topical anaesthesia (TA) has been described since 1980.<sup>1</sup> The agent commonly used is a mixture of 0.5% tetracaine, 0.05%

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adrenaline (epinephrine) and 11.8% cocaine (TAC). This method has a similar efficacy to infiltration but is less painful to apply<sup>3</sup> and is used widely in the United States.

All 597 accident and emergency (A&E) departments in the UK were sent a questionnaire about their use of TA in children's lacerations.

There was a 71% response rate.

Of the 34% of all responders who used TA, 33% used Emla, 31% used lignocaine and 26% used Ametop. Less than half of these felt TA was preferable to injection. Only 8% used a cocaine and adrenaline mixture but 91% of those preferred it. TAC was used in 3%.

Most (66%) departments did not use TA. There were many reasons given. The commonest reasons were “no experience” (28%), “TA ineffective” (20%), “slow onset” (10%) and “department protocol” (10%). Three per cent of responders were concerned about absorption.

This survey has shown that only a minority of UK A&E departments use TA for suturing children's lacerations and, of these, few use agents for which there is evidence. TAC use has been associated with prolonged fitting<sup>4</sup> and mortality,<sup>5</sup> is expensive and contains a controlled drug. The rare catastrophes to-

gether with the inconvenience of its use may be why UK clinicians prefer the safer and convenient lignocaine infiltration. If an agent without cocaine was shown to have similar efficacy to TAC, it may allow more widespread use of TA in the UK.

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- 1 Pryor GJ, Kilpatrick WR, Orr DR. Local anesthesia in minor lacerations: topical TAC vs lidocaine infiltration. *Ann Emerg Med* 1980; **9**:568-71.
- 2 Hegenbarth MA, Altieri MF, Hawk WH, et al. Comparison of topical tetracaine, adrenaline, and cocaine anesthesia with lidocaine infiltration for repair of lacerations in children. *Ann Emerg Med* 1990; **19**:63-7.
- 3 Anderson AB, Colecchi C, Baranoski R, et al. Local anesthesia in pediatric patients: topical TAC versus lidocaine. *Ann Emerg Med* 1990; **19**:519-22.
- 4 Daya MR, Burton BT, Schleiss MR, et al. Recurrent seizures following mucosal application of TAC. *Ann Emerg Med* 1988; **17**:646-8.
- 5 Dailey RH. Fatality secondary to misuse of TAC solution. *Ann Emerg Med* 1988; **17**:159-60.

### Feigning dystonia to feed an unusual drug addiction

EDITOR.—We recently had a patient attend our department repeatedly feigning acute dystonia in an attempt to obtain procyclidine medication. The case illustrates the fact that many medications are abusable.<sup>1</sup> Patients are knowledgeable and may be willing to go to some lengths to obtain them fraudulently. Accident and emergency staff should be alert to this possibility when faced with unusual stories or situations. The psychotropic drug directory is a brief handy reference, which may help in such situations and can be obtained free of charge from Lundbeck pharmaceuticals.<sup>1</sup>

A 19 year old man of normal appearance, presented on three occasions complaining of neck pain and holding his neck in full extension. Examination revealed a full range of passive neck movements, with no other associated neurological or ocular abnormalities. The patient admitted to previous crack cocaine and marijuana misuse. He further stated that he had recently taken a substance he believed to be diazepam. A putative diagnosis of acute dystonia was made and he was treated with 5 mg intramuscular procyclidine. He made a recovery within a few minutes and was discharged.

The patient attended on two further occasions in the following month with the same presenting complaint. On his last visit he was

aggressive, demanding an injection and "something to take home to stop this happening again". Our suspicions were aroused by his demeanour and further discrete observation revealed that his posture normalised when he was unaware of being watched. He was warned of the abuse potential of procyclidine and offered the opportunity of consultation with the community psychiatric nurse. A note was made that he should have no further treatment without psychiatric evaluation.

Acute dystonia can be a side effect of certain medications. It is treated with anticholinergic or antihistaminic medication. Procyclidine (Kemadrine) is the usual drug used.<sup>2</sup>

Procyclidine is an anticholinergic drug whose potential for misuse, although described, is not widely recognised.<sup>1-4</sup> It is believed to have an euphorant effect. Indicators of misuse include absence of symptoms when a patient is unaware of being observed, dystonia of a static form, the presence of non-organic neurology, evidence of a secondary gain, or symptoms of somatisation disorder.<sup>2</sup> If simulation is suspected a call to the patients' general practitioner or to local emergency departments may reveal, that the patient is "shopping".<sup>2</sup>

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- 1 Bazire S. Treatment options; movement disorders. In: *Psychotropic drug directory*. Milton Keynes: Lundbeck, 1999:71. (Tel: 01908 649966).
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- 4 Fenech J, Khoosal D. Procyclidine abuse. (Letter). *Br J Psychiatry* 1986; **149**:524.

## NOTICES

### 13th Annual Congress of the European Society of Intensive Care Medicine

1-4 October 2000, Rome, Italy  
*Further details:* ESICM Congress Secretariat, 40 Avenue Joseph Wybran, 1070 Brussels, Belgium (tel: +32 2 559 03 55, fax: +32 2 527 00 62, e-mail: public@esicm.org, web site: <http://www.esicm.org>).

### Books received

**Complications in the intensive care unit: recognition, prevention, and management.** Edited by M A Matthay and D E Schwartz. (Pp 343; £69.00). Chapman and Hall, 1997. ISBN 0-412-06671-8.

**Anesthesia and intensive care for organ transplantation.**

Edited by J R Klinck and M J Lindop. (Pp 396; £85.00). Chapman and Hall Medical, 1997. ISBN 0-412-56820-9.

**Effective presentations for health care professionals.** By Lisa Hadfield-Law. (Pp 114; £14.99). Butterworth-Heinemann, 1999. ISBN 0-7506-3843-5.

**Davies's textbook of adverse drug reactions.** 5th ed. Edited by D M Davies, R E Ferner, and H de Glanville. (Pp 971; £195.00). Chapman and Hall Medical, 1998. ISBN 0-41282480-9.

**Emergency neurology: principles and practice.** Edited by S M Shah and K M Kelly. (Pp 614; £95.00). Cambridge University Press, 1999. ISBN 0-521-49688-8.

**Broken bones: anthropological analysis of blunt force trauma.** Edited by Alison Galloway. (Pp 371; \$66.95). Charles C Thomas, 1999. ISBN 0-398-06992-1.

**Surgery of spinal trauma.** Edited by Jerome M Cotler, J Michael Simpson, Howard S An, and Christopher P Silveri. (Pp 390; £\$175.00). Lippincott Williams and Wilkins, 2000. ISBN 0-6831-8108-4.

### Clinical Toxicology Short Course

30 October to 8 November 2000, Adelaide, Australia

*Further details:* Dr Julian White, Poisons Information Centre, Adelaide Childrens Hospital Division, Womens and Childrens Hospital, King William Street, North Adelaide, SA 5006, Australia (tel: +61 8 82047000, fax: +61 8 82046049, e-mail: [toxinaus@wch.sa.gov.au](mailto:toxinaus@wch.sa.gov.au), web site: <http://www.wch.sa.gov.au/paedm/clintox/courses.html>).