

be considered in those patients presenting to an A&E department with features suggestive of migraine.

PAWAN GUPTA
Specialist Registrar

S MOALYPOUR
Consultant,
Accident and Emergency Department,
Kingston Hospital, Galsworthy Road,
Kingston upon Thames, Surrey KT2 7R9

- 1 Mirza Z, Hayward P, Hulbert D. Spontaneous carotid artery dissection presenting as migraine—a diagnosis not to be missed. *J Accid Emerg Med* 1998;15:187-9.

The authors reply

The letter from Gupta and Moalypour further illustrates that carotid artery dissection is not as uncommon as had been thought. The range of symptoms recognised as being due to the condition and its diagnosis will no doubt increase as doctors become aware of it and imaging techniques and access to them improve. At present we are still learning the true incidence and the natural history of this challenging condition.

Minor injuries units

EDITOR,—Mabrook and Dale's paper on the minor injuries unit in Horsham will doubtless be cited as further evidence of the viability of such facilities.¹ However, closer inspection of their data suggests otherwise.

Firstly, we know that 50% of patients attending minor injuries units could have either self treated or seen their general practitioner (GP).² This implies that only 3472 of the Horsham patients had a significant injury. Of these, 1342 had to be seen by the accident and emergency (A&E) consultant, 234 were referred to the major A&E unit, and 93 were referred to the ear, nose, and throat/ophthalmology departments. This leaves just 1803 appropriate patients who were treated by emergency nurse practitioners (ENPs) during the 12 month period. This equates to 3.5 patients per nurse per working day. Hardly an efficient use of experienced nurses.

Secondly, the paper talks about quality but fails to say whether the ENPs accurately managed soft tissue injuries or whether the antibiotics they prescribed were appropriate. Nor are we told how many ENP patients later self referred to their GP or to the major A&E unit. Nor does the planned reattendance rate reported (23%) suggest a particularly efficient or confident department.

As the pressure to close small and medium sized A&E units continues, more and more communities will be offered minor injury units instead. The public should understand that such units are both untested and inefficient of resources.

A M LEAMAN
Consultant in Accident and Emergency Medicine,
Princess Royal Hospital,
Apley Castle, Telford,
Shropshire TF6 6TF

- 1 Mabrook AF, Dale B. Can nurse practitioners offer a quality service? An evaluation of a year's work of a nurse led minor injury unit. *J Accid Emerg Med* 1998;15:266-8.
2 Dolan B, Dale J. Characteristics of self-referred patients attending minor injury units. *J Accid Emerg Med* 1997;14:212-14.

The authors reply

The aim of the paper was to evaluate whether an experienced trained nurse can treat minor injuries and ailments in a minor injury unit and *not* to justify the existence of such units. However, if healthcare trusts decide to commission a unit the year's study has shown that ENPs can be used to provide a successful alternative service.

The points raised by Mr Leaman are arguments that can be used against the existence of minor injuries units, which might well be valid, however this is not what the authors intended to raise in this paper.

All patients who attended the unit were initially assessed and treated by the ENPs. Patients who were referred to the consultant were patients who required follow up and would have been referred even if they had been treated by a casualty officer. It is true that a high number of patients were reviewed in the unit. This is because the consultant has an interest in the management of the common fractures that do not require orthopaedic intervention.

In order to monitor the ENPs' work during the year of evaluation, all the patients' notes were reviewed by the consultant to ascertain whether patients had been diagnosed correctly and treatment had been carried out according to protocols set. Reviews of patients served to monitor the effectiveness of the treatment given by the ENPs.

As to not having kept a record of how many patients treated by the ENPs then self referred to a GP or an A&E department.... Is it possible to keep records of this without a national integrated monitoring system? Patients self refer for second opinion all the time regardless of where they have been initially treated.

Risk of fire outweighed by need for oxygen and defibrillation

EDITOR,—We read with interest that Cantello *et al* from St George's Hospital have repeated part of an experiment we conducted (at the same institution) examining ambient oxygen concentrations during simulated cardiopulmonary resuscitation.² Unfortunately, it is unclear exactly where their gas samples were taken. They state that "the oxygen level beside the manikin on the trolley surface did rise from 22% at the axilla to 28% directly below the reservoir valve" but do not define sampling points nor the time course of the experiment. This lack of detail may be responsible for Dr Ward's supposition (in his comments attached to the letter) that Cantello *et al* measured 28% oxygen concentrations at the axilla. This would be, indeed, a potential hazard as this is a standard paddle position during defibrillation.

We demonstrated a risk of raised oxygen concentrations in areas where oxygen (which is heavier than air) can pool, notably the axilla, when a disconnected ventilation device (Waters' bag, self inflating bag, and intensive care ventilator) is left resting on the pillow. Oxygen concentrations were not raised if the breathing systems were left connected to the manikin or were removed to a distance of greater than 1 m behind the head. The advice of the Resuscitation Council (UK) "that the breathing system be ... disconnected from and distanced from the patient" is sound if the distance be specified as greater than 1 m.

Although Dr Ward's comments are not supported by the findings of Cantello *et al* we feel that, in the case of a disconnected and not adequately distanced breathing system, they

do apply. It is a simple thing to move the source of oxygen away from the patient in the accident and emergency department. In the intensive care unit, where disconnection of breathing systems may present more complex problems, it may be safer to leave the patient attached to the ventilator.

G R MCANULTY
Locum Consultant in Anaesthesia and Intensive Care,
St George's Hospital, London SW17 0QT

H ROBERTSHAW
Specialist Registrar,
Department of Anaesthesia,
Watford General Hospital,
Watford, Herts WD1 8HB

The authors reply

We were pleased to find that McAnulty and Robertshaw's work regarding oxygen concentration during simulated cardiopulmonary resuscitation² confirms our research, and are grateful for the opportunity to discuss our methodology in greater detail.

With the manikin and ventilation bag set up as explained in our previous letter,¹ the oxygen level recorded at the sternum and apex paddle positions and also at the mouth remained at 21%. Each position was observed for 10 minutes and the oxygen reading was noted to stabilise after two minutes. Therefore, with the analyser raised above the trolley around the manikin's anterior, there is no change in oxygen concentrations.

Referring to both our earlier letter on the subject and supporting letter by Dr Ward,¹ the real debate is not how far to remove the ventilation bag before defibrillation but whether one should remove the oxygen at all before defibrillation. Which is the greater risk? The risk of fire due to defibrillation over an oxygenated area, or the risk of dislodging the endotracheal tube, reducing oxygen flow to a patient in dire need, and delaying life saving defibrillation?

As a training issue, we concur with Dr Ward, "awareness of the problem is likely to reduce the incidence [of fire],¹ and Robertshaw and McAnulty, "it is most important to avoid arcing by ensuring correct placement of paddles and electrolyte pads before defibrillation..."²

In summary, the risk of fire is remote in properly performed defibrillation; the risks to the patient caused by taking the time to remove the oxygen, and the possibility of dislodging the endotracheal airway before defibrillation are too great. Whether in the accident and emergency department or the intensive care unit, we reaffirm our belief that oxygen should not be removed before defibrillation.

1 Cantello E, Davey TE, Koenig KL. The question of removing a ventilation bag before defibrillation. *J Accid Emerg Med* 1998;15:286-9.

2 Robertshaw H, McAnulty G. Ambient oxygen concentrations during simulated cardiopulmonary resuscitation: should ventilatory devices be disconnected before defibrillation? *Anaesthesia* 1998;53:634-7.

Child Protection Register—time for change

EDITOR,—The Child Protection Register neither protects children nor is it a good register. It is used in accident and emergency (A&E) departments across the country several thousand times a day as an investigation. What is the sensitivity and specificity of this test, what positive or negative predictive value has it got? Many, if not all, A&E department clinicians

would acknowledge it is difficult to assess objectively a child with a bruise who is on the register. Innocent accidents befall those on the register as well as those who are not. The corollary, the false negative, that because the child is not on the register excludes the injury from being non-accidental is well recognised. What other tests in clinical practice are so emotive? Being on the Child Protection Register in Cleveland has different connotations to being on the Child Protection Register in Dorset. Would the same be said of an abnormal full blood count?

As a test it is also time consuming and unwieldy and is analogous to former red telephone boxes—large, clumsy, and frequently broken! It would be a more useful resource if it was presented as a relational database—an upgradeable CD-ROM for example, or even online. A national database without regional boundaries. A database which not only displayed those currently registered but those who have been on the register in the past two or so years would be useful; with surnames of both parents in cases of divorce/separation.

Having detailed its weaknesses can we drop this test from practice? Probably not, as the Child Protection Register is so well known that if a child with non-accidental injury was discharged from an A&E department without referral to the register the media would have a field day.

Use of the register would flounder at the first hurdle were it to be subjected to "best evidence topic" appraisal, yet it is quoted in the most recent *Textbook of Emergency Medicine*.

Finally, but the most important question: does the presence on or absence from the register affect practice? An experienced A&E department clinician is likely to be referring a child on criteria other than his or her status on the register. Research is needed to establish the Ottawa ankle rules of non-accidental injury—a validated scoring system that predicts/excludes non-accidental injury, which can be used both by A&E clinicians and paediatricians—who don't see 50 innocent injuries daily.

MARK F NICOL
ADRIAN HARRIS

Accident and Emergency Department,
Royal Devon and Exeter Hospital (Wonsford),
Barrack Road, Exeter EX2 5DW

Relatives in the resuscitation room

EDITOR,—I read with great interest the paper by Barratt and Wallis, which adds much to the debate regarding the merits of witnessed resuscitation.¹ As with all interesting papers it raises as many questions as it seeks to answer. In the first instance, it is uncertain from the paper if the facilities currently recommended for witnessed resuscitation were available to the surveyed relatives, as per the guidelines from the Resuscitation Council.² Many, obviously including the Resuscitation Council working party, feel this may alter uptake or desire for uptake of the offer to witness.

Secondly, no demographic data are available regarding the non-responders, especially concerning type and location of cardiac arrest. Previous surveys of this type had higher response rates,³ and the reasons for declining to answer what could be a potentially emotive questionnaire would be most interesting.

Thirdly, only one relative from each resuscitation was invited to reply. Previous studies have allowed more than one relative to witness,³ and indeed surveyed more than one relative.⁴

Barratt and Wallis' paper furthers the case for witnessed resuscitation, challenging previous often entrenched viewpoints.⁴ This must be commended as witnessed resuscitation is, in reality, common sense. Nearly half of the respondents in this study, as is most likely in real life, had already been with their relative during the earliest and often most traumatic moments of resuscitation. Barratt and Wallis give us much valuable information but as yet we still do not have the all important answer to one of the most important questions in this area: Why does a relative wish to be a witness to their loved one's resuscitation?

RUSSELL BOYD

Specialist Registrar,
Accident and Emergency Department,
Hope Hospital, Stott Lane,
Salford M6 8HD

- 1 Barratt F, Wallis DN. Relatives in the resuscitation room: their point of view. *J Accid Emerg Med* 1998;15:109-11.
- 2 A report from a project team of the Resuscitation Council. *Should relatives witness resuscitation?* London: Resuscitation Council (UK), 1996.
- 3 Doyle C, Post H, Burney R, et al. Family participation during resuscitation: an option. *Ann Emerg Med* 1987;16:673-5.
- 4 Hampe S. Needs of the grieving spouse in the hospital setting. *Nurs Res* 1975;2:113-9.

1999 Global theme issue

Every year the *Journal of the American Medical Association* coordinates a theme issue involving medical journals internationally across the range of specialties.

The theme for November 1999 will be "Impact of New Technologies in Medicine".

The *Journal of Accident and Emergency Medicine* welcomes submissions of review articles and original papers for publication on this topic. Papers should reach the editorial office by 30 June 1999.

CD-ROM REVIEW

Mosby's Emergency Medicine CD-ROMs, volume 1 (adult) and volume 2 (child). Single user £250+VAT per volume (both volumes for £304+VAT). Mosby Yearbook Inc and Folio Corporation, 1995. (Available from Healthworks Ltd, 30-38 Dock Street, Leeds LS10 1JF, UK; e-mail: sales@d-access.demon.co.uk).

Immediate access to a range of reference textbooks is essential in any accident and emergency (A&E) department but so often the most useful books tend to be unavailable having been "borrowed". These two CD-ROMS contain a remarkable collection of some of the best emergency medicine texts and papers and may well provide an answer to this problem especially now more sophisticated technology is available in many A&E departments. The adult volume contains the entire text and illustrations from the Mosby titles: *Emergency*

Medicine (Rosen), *Diagnostic Radiology* (Rosen), *Clinical Dermatology* (Habif), *Emergency Medicine Review* (Thomas), *Annals of Emergency Medicine* (1994), and *Yearbook of Emergency Medicine* (1990-94). The paediatric volume includes: *Paediatric Emergency Medicine* (Barkin), *Paediatric Dermatology* (Weston), *Paediatric Emergency Medicine Review* as well as *Annals of Emergency Medicine* (1994) and *Yearbook of Emergency Medicine* (1990-94).

The computer system requirements are a 386 PC (or a Macintosh) with 4 MB of RAM and both CDs were very easy to load and use. A short manual is included and after 10 minutes I was able to use various advanced searching modes and it proved surprisingly easy to locate information on various topics. The text was easy to follow and most illustrations including x rays were well reproduced on the screen, however some of the dermatology pictures were lacking in clarity. A major drawback was that in many chapters permission had not been obtained to reproduce the original book illustrations; more than half of the x rays from a book chapter on cervical spine injuries were simply absent, but there was no indication of this in the accompanying manual or promotional material. Also, some of the books contained on the CDs are now available in later editions in book form.

The inclusion of the *Annals of Emergency Medicine* and the *Yearbook of Emergency Medicine* is definitely a bonus in being able to search rapidly for the latest research in emergency medicine but more comprehensive dermatology atlases in both volumes would be useful as well as an advanced book on electrocardiograms. The self assessment reviews included are useful for educating junior staff and both the adult and the paediatric emergency medicine texts are leaders in their fields.

So many illustrations are missing that I cannot yet recommend these CDs but if this problem could be overcome (and the latest editions of the relevant texts included) then I would regard them as absolutely essential for all A&E departments and certainly useful for higher trainees and consultants to have their own copies.

FRANCIS ANDREWS
Specialist Registrar,
Accident and Emergency Medicine, Leeds

Spring Meeting of the British Paediatric Accident and Emergency Group

13 April 1999, University of York

This is a one day meeting in conjunction with the Paediatric Intensive Care Group and is held within the third Spring Meeting of the Royal College of Paediatrics and Child Health (RCPCH), 13-16 April.

Attendance at the meeting by non-RCPCH members is encouraged.

Details are available from the RCPCH, 50 Hallam Street, London W1N 6DE or from Dr B Phillips, Accident and Emergency Department, Royal Liverpool Children's Hospital NHS Trust, Alder Hey, Eaton Road, Liverpool L12 2AP.