

A laryngeal mask airway may certainly have a role as a backup device, but is not always easy to insert, particularly in the multiply injured patient requiring cervical stabilisation.<sup>2</sup> Comparative studies are required to determine the best approach to a failed prehospital intubation.

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**Intranasal naloxone for life threatening opioid toxicity**

Heroin overdose is a major cause of death in Western countries. Many lives are saved by the administration of naloxone by emergency department and ambulance staff. In Australia, there have recently been calls by drug and alcohol dependence agencies and coroners for the extension of this treatment to other emergency service and community workers. Parenteral administration of naloxone however has some problems. It entails administration by way of an injection, mandating training of personnel and secure storage of equipment. There is also risk of transmission of blood-borne diseases such as hepatitis C to the treating person by way of needlestick injuries.

Currently available pharmacology data suggest that naloxone has high bioavailability through the nasal mucosa, with onset of action and plasma bioavailability curves that are very similar to the intravenous route.<sup>1</sup> Work in the field of drug addiction has shown that intranasal naloxone is effective in detection of opioid dependence<sup>2</sup> and is as effective as parenteral naloxone for the reversal of opioid effects.<sup>3</sup> To date, the intranasal administration of naloxone for the emergency treatment of opioid overdose has not been reported in the literature.

Six cases of isolated acute heroin overdose were treated with intranasal naloxone, in addition to ventilatory support, in the Department of Emergency Medicine of Western Hospital, Melbourne, Australia. All patients had return of adequate spontaneous respiration within two minutes, with a median of 50 seconds (table 1). Doses used ranged from 0.8 to 2 mg and were at the treating doctor's discretion.

If intranasal administration of naloxone could be shown in larger series to be effective and practical, there is the potential to extend

this treatment to a wide variety of community workers without the risk of needlestick injury and with minimal training. This may well translate into an increase in lives saved.

A prospective clinical trial comparing the effectiveness and safety of the intranasal route for administration of naloxone to the intramuscular route in the prehospital setting is planned to begin in December 2001.

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**Anti-D immunoprophylaxis within the accident and emergency department**

The debate on anti-D prophylaxis rages on. Recently the subject was discussed in a green top guideline from the Royal College of Obstetricians and Gynaecologists.<sup>1</sup> There are still approximately 50 deaths per annum attributable to rhesus isoimmunisation in the UK. In reviewing the reasons why these deaths still occur, the Consensus Conference on Anti D in 1997 admitted that the 1991 Recommendations are not being adhered to by all units and that a substantial proportion of accident and emergency (A&E) departments did not administer anti-D when appropriate (Consensus Conference on Anti-D Prophylaxis, Edinburgh, UK 8–9 April, 1997).

The conference discussed but did not conclude on the need for anti-D prophylaxis where threatened miscarriage and resolution occurs in the first trimester, or when spontaneous miscarriage occurs at this time without instrumentation. The College guidelines go further in advocating non-use of anti-D when pregnancy bleeding occurs in the first trimester with a viable fetus and supports the use of anti-D when "bleeding is heavy or repeated, when abdominal pain is present or when gestation approaches 12 weeks".

There is a need here for more precision. Many SHOs in A&E have limited gynaecological experience and under the new guidelines will be expected to determine which patients require anti-D.

Furthermore, the present recommendation for non-use of anti D is based largely on two observational studies, (Grade C recommendation). In this era of evidence based medicine is this sufficient basis for a change in policy?

In the past anti-D immunoprophylaxis was

with early pregnancy bleeding. This has not been shown so far to be significantly associated with adverse side effects and the cost implications are not prohibitive.

Perhaps the way forward is shown in a more recent RCOG guideline, on the management of early pregnancy loss.<sup>2</sup> The same dilemma is dealt with in a caveat "if there is clinical doubt then anti D should be given". Until more conclusive information is to hand, rather than obfuscating the issue, a return to a policy of administering anti-D to all rhesus negative women with early pregnancy bleeding seems a more plausible option.

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**Teaching and learning**

We read with interest the paper by Dr Lockey describing the different learning approaches that may be taken by students.<sup>1</sup> We are aware that the field of educational psychology is woolly and littered with many definitions and it may be difficult to give a brief overview of learning approaches. The author has made a valid point in suggesting that as doctors we are expected to teach but are rarely trained in the teaching process. The author goes on to describe how there are essentially two learning approaches adopted by students: "surface" and "deep". We are then told how deep learning is superior to surface and that as educators we should attempt to promote deep learning.

This is fine. However, Dr Lockey has made an important omission in his paper. The author has failed to describe a third and very important learning approach. That is the "strategic" approach as described by Miller and Partlett.<sup>2</sup>

The strategic learner is a success driven person who approaches the learning process as a game where a high mark is the end point. These people will focus only on what they perceive to be relevant to exam success and disregard additional information. They may attempt exam prediction or even attempt to obtain inside information from authority figures. This approach results in poor long term recall and patchy subject knowledge. McManus *et al* have shown that medical students with the most clinical experience do not perform best in final exams but deep and strategic approaches do correlate well with exam success.<sup>3</sup> The worry here is that as medical students these people may flourish in exams but as clinicians lack the knowledge base or understanding to work safely or effectively.

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**Table 1**

Patient	Dose IN naloxone	Time to spontaneous respiration
1	0.8 mg	40 seconds
2	1.6 mg	2 minutes
3	1.6 mg	30 seconds
4	2 mg	1 minute
5	1.6 mg	90 seconds
6	0.8 mg	30 seconds