

# A survey of medical emergencies at the University Dental Hospital of Manchester

*Medical emergencies: the experience of staff of a UK dental teaching hospital* G. J. Atherton, M. N. Pemberton, and M. H. Thornhill *Br Dent J* 2000; 188: 320-324

## Objective

To assess the frequency of faints and other medical emergencies experienced by staff of a UK dental hospital. To investigate the training they had received in the management of medical emergencies, their perception of readiness to deal with emergencies and future training needs.

## Subjects

All 193 clinical staff (dentists, hygienists, nurses and radiographers) of the University Dental Hospital of Manchester.

## Design

Structured questionnaire with covering letter, reminders sent to non-responders.

## Results

There was an 82% response. Fainting was the commonest event: other medical emergency events were experienced with an average frequency of 1.8 events per year, with the highest frequency reported by staff in oral surgery. Most expressed a need for further training: only 3% felt no need.

## Conclusions

Medical emergencies occur in dental hospital practice more frequently but in similar proportions to that found in general dental practice. There is a perceived need for further training among dental hospital staff in the management of medical emergencies.

## In brief

- Medical emergencies appear to be more frequent in a dental hospital practice than a general practice but the relative proportion of different types of emergency events experienced mirrors that seen in general practice.
- In a dental hospital practice, oral surgery procedures appear to be associated with a higher risk of a medical emergency occurring than other types of dental treatment.
- There is a perceived need for training in management of medical emergencies among dental hospital staff.

## Commentary

This interesting paper by Guy Atherton and his colleagues in Manchester takes a retrospective look at the number of medical complications and emergencies occurring at the Dental Hospital. All the clinical staff were sent questionnaires (dental and ancillary) and so there is an inevitable element of double or multiple reporting. The time period examined (up to 10 years) also gives room for the introduction of possible reporting errors. In addition, the definition of what constitutes an 'emergency' is not clearly defined and, judging by the tabulated information, the events described as emergencies would not find universal agreement. Even so, there has been little research of this nature carried out in the UK previously other than by these authors, and Mark McGurk whose work remains unpublished, and their results make interesting reading.

The incidence of fainting in the dental

chair (the commonest recorded emergency) is reported to be ten times greater than a similar study in the USA, and the reasons for this are not clear. It is, however, similar to the authors' previous paper (*BDJ* 186: 72-79) published last year which looked at the incidence of emergencies in general dental practice in the UK and found they were far less common in general practice than in the hospital setting. At least one dentist reported seeing 20 faints in a 12-month period!

With regard to the other types of emergency — hyperventilation, swallowing objects, acute asthma, fitting and angina constitute the majority of described events. If an emergency is defined as a sudden and unexpected life-threatening event, it may be preferable to classify some of these as complications rather than emergencies.

The final section of this paper looks at the ability of clinicians to 'manage' an emer-

gency and how well prepared practitioners feel. As in most centres, there has been a growing emphasis on CPR courses and this has helped to increase awareness and confidence in basic life support. The ability to deal with a true crisis is difficult to both teach and test but the desire to see increased hands-on courses is admirable.

There is a clear need to develop the work commenced by Atherton *et al.* Prospective data are clearly preferable to retrospective data and these will probably need to be collected on a multi-centre basis. It may then be possible to get a true picture of the incidence of complications and emergencies and thus address the issue of reducing them to the sort of levels reported in the USA.

## C. M. Hill

Consultant Oral and Maxillofacial Surgeon,  
Cardiff Dental Hospital