

His peak flow was 180 today and I have issued a peak flow meter for his parents to establish the best he can manage. I have given them the danger peak flow value of 100, and if it falls below this they will come to casualty.

2 *Passive smoking*—I have advised his parents to stop smoking as it is likely to be aggravating the child's asthma.

3 *Brother with Down's syndrome*—Close family involvement in the management of this child's asthma is important, and this will be less easy because of the care that his brother also needs.

4 *Poor housing*—I have not addressed this problem today.

Review—1 month.

I believe that this arrangement of letters is even easier to read and to scan for items of particular interest and relevance, both for the general practitioner and during further hospital follow up.

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1 Lloyd BW, Barnett P. Use of problem lists in letters between hospital doctors and general practitioners. *BMJ* 1993;306:247. (23 January.)

EDITOR,—Problem lists in hospital letters¹ are an excellent way to improve communication, and they also enable quicker and more focused care for patients when they are reviewed at subsequent hospital appointments. I hope that general practitioners will increasingly use problem lists in their own letters.

There are two traps for the unwary. Firstly, the problem list can be overwhelmingly long if all the minor problems are included. It is often better to be selective or list the problems in order of priority. This tailors the list to the condition that is under review.

Secondly, there is a temptation to attach a diagnostic label to each condition so that it fits neatly on the problem list. This can lead to unquestioning acceptance of what is really a hypothetical diagnosis. It is better to use the symptom as "the problem" if the diagnosis is unclear.

My final point is a secondary issue relating to the sample letter. This was high quality until the last sentence, which suggested attendance at casualty if the peak flow fell. Surely in this fictional consultation the child's own general practitioner would be able to assess the child and administer inhaled or oral steroid as effectively, if not more effectively, than a busy house officer in a casualty department?

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1 Lloyd BW, Barnett P. Use of problem lists in letters between hospital doctors and general practitioners. *BMJ* 1993;306:247. (23 January.)

The laryngeal mask

EDITOR,—Moirá E O'Meara and J Gareth Jones state that a laryngeal mask may prove life saving when a patient is impossible to intubate or ventilate by traditional methods.¹ One such incident occurred recently in our theatres. A young man underwent uvulopalatopharyngoplasty and trimming of inferior turbinates to prevent him snoring. After induction of anaesthesia tracheal intubation proved difficult owing to an anteriorly placed larynx (Mallampati grade II-III) and the patient's great size (he was 201 cm tall and weighed 118 kg). Once tracheal intubation had been achieved with the aid of a stylet, surgery proceeded

uneventfully. Two hours after the operation he developed a reactionary haemorrhage from the right tonsillar fossa and was returned to the theatre.

The bleeding into his pharynx was so massive that he was unable to maintain his own airway while lying supine. With the patient on his left side anaesthesia was induced with halothane in oxygen and small increments of propofol intravenously. The airway became increasingly difficult to maintain. Removing the nasal pack and inserting a nasopharyngeal tube did not improve matters. Direct laryngoscopy was performed and the posterior third of the larynx visualised, and suxamethonium was given to facilitate intubation. Several attempts to force the endotracheal tube over a gum elastic bougie were unsuccessful. Preparations were made to perform an emergency tracheostomy, but spontaneous respiration returned and a size 4 Brain laryngeal mask was inserted, allowing easy maintenance of the airway and confining further haemorrhage to the pharynx. There was adequate room to position a Boyle Davis gag into the oral cavity and control the tonsillar haemorrhage, and at the end of the procedure careful deflation of the laryngeal mask cuff under direct laryngoscopic vision allowed passage of an endotracheal tube into the trachea. The patient was transferred to the intensive care unit and was extubated the next morning.

Williams and Bailey recently described using a reinforced laryngeal mask for adenotonsillectomy.² We do not advocate routine use of a laryngeal mask in anaesthesia to control tonsillar haemorrhage as it does not guarantee protection from aspiration of blood and gastric contents.^{1,3} It can, however, be life saving when traditional methods of intubation fail, and we recommend its inclusion with equipment for difficult intubations.

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- 1 O'Meara ME, Jones JG. The laryngeal mask. *BMJ* 1993;306:224-5. (23 January.)
- 2 Williams PJ, Bailey PM. Comparison of the reinforced laryngeal mask airway and tracheal intubation for adenotonsillectomy. *Br J Anaesth* 1993;70:30-3.
- 3 Levy DM, Martin PD. Recent advances. The laryngeal mask airway. *Surgery* 1993;11:300-1.

EDITOR,—Moirá E O'Meara and J Gareth Jones mention the life saving potential of the laryngeal mask when the patient is impossible to intubate or ventilate by traditional methods.¹ The mask is useful before the patient reaches hospital, particularly when ventilation is required in suspected cervical spinal injury and movement of the patient is minimised, and for facial injuries, in which using a face mask is difficult.² It can be passed when the operator is positioned in front of the patient, such as in a road traffic accident victim trapped in a vehicle, and the insertion technique is relatively simple and much less traumatic than endotracheal intubation.

Although the risk of aspiration has not been completely eliminated, massive regurgitation is unlikely to occur,³ but avoiding ventilatory pressures greater than 20 cm H₂O (not always practical in a trauma situation) avoids leaks around the cuff and minimises gastric dilatation. A I J Brain reported in an address to the Royal Society of Medicine that work is currently underway on developing a laryngeal mask that incorporates a separate channel through which a nasogastric tube can easily be passed.

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1 O'Meara ME, Jones JG. The laryngeal mask. *BMJ* 1993;306:224-5. (23 January.)

- 2 Johnston IG, Restall J. The laryngeal mask airway. *J Br Assoc Immed Care* 1989;12:3-4.
- 3 Brain AIJ. The laryngeal mask airway—a possible new solution to airway problems in emergency situations. *Arch Emerg Med* 1984;1:229-32.

EDITOR,—Moirá E O'Meara and J Gareth Jones comprehensively describe many aspects of the laryngeal mask pertinent to anaesthesia.¹ We would like to add comments about its use relevant to non-anaesthetists.

Although the laryngeal mask does not protect the airway against gastric contents, it has potential for use in resuscitation and emergency medicine when intubation is impossible and a patent airway cannot be maintained with a face mask. In this situation during anaesthesia the laryngeal mask has been life saving. Several studies have shown that unskilled staff rapidly acquire the skill to insert the mask.^{2,4} It is also important, however, to appreciate when attempts at insertion are inappropriate and to be able to recognise and manage failure of insertion. Studies are currently under way to determine the role of the laryngeal mask in emergency medicine and the degree of training required to ensure its safe application in this area. The laryngeal mask is being modified to produce a version that may afford better protection against aspiration,⁵ and this may extend its applications still further. These would include its use in emergency airway management in the field and in cervical spine injury as the neck may be maintained in the neutral position during insertion and laryngoscopy is not needed.

A further potentially widespread application is in diagnostic fiberoptic bronchoscopy in awake patients. The hypopharynx is well adapted to the presence of a foreign body, and insertion of the laryngeal mask can easily be achieved in awake patients under topical anaesthesia and sedation. When a fiberoptic bronchoscope is passed down the tube of the laryngeal mask a dynamic view of the vocal cords is possible in most patients.⁶ Bronchoscopy can be readily performed and has the added advantage of allowing the patient's respiratory function to be monitored and 100% oxygen to be administered if required.

We believe that formal training in the use of the laryngeal mask would be beneficial to any physician dealing with such cases. A laryngeal mask should be available in any hospital setting where airway management is carried out.

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- 1 O'Meara ME, Jones JG. The laryngeal mask. *BMJ* 1993;306:224-5. (23 January.)
- 2 Davies PRF, Tighe SQM, Greenslade GL, Evans GH. Laryngeal mask airway insertion and tracheal tube insertion by unskilled personnel. *Lancet* 1990;336:977-9.
- 3 De Mello WF, Ward P. The use of the laryngeal mask airway in primary anaesthesia. *Anaesthesia* 1990;45:793-4.
- 4 Pennant JH, Walker MB. Comparison of the endotracheal tube and laryngeal mask in airway management by paramedical personnel. *Anesthesia and Analgesia* 1992;74:531-4.
- 5 Brain AIJ. The development of the laryngeal mask—a brief history of the invention, early clinical studies and experimental work from which the laryngeal mask evolved. *Eur J Anaesthesiol* 1991;4:5-17.
- 6 Brimacombe J, Newell S, Swainston R, Thompson J. A possible new technique for awake fiberoptic bronchoscopy—use of the laryngeal mask airway. *Med J Aust* 1992;156:876-7.

EDITOR,—We recently encountered an interesting complication related to use of a laryngeal mask.¹ After successfully excising a branchial cyst in the right neck the surgeon was faced with a deeper non-pulsatile cyst under considerable tension, with fine nerves and blood vessels traversing its wall. It was lying laterally between the greater cornu of the hyoid bone and the thyroid cartilage.