general and specifically at the sites of injury. The principle advantages of direct laryngoscope are that anaesthesiologists are very experienced in using the instrument and that it is a highly effective tool. However, it has the potential to cause greater cervical spine movement than indirect laryngoscopy [4]. Any device that could reduce cervical spine movement deserves attention.

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References

The LMA Supreme™ – a pilot study

The LMA Supreme™ (Fig. 1; Laryngeal Mask Company, Singapore), is a new extraglottic airway device which brings together features of both the LMA ProSeal™ (high seal cuff, gastric access and bite block – to facilitate ventilation, airway protection and airway obstruction, respectively) (Laryngeal Mask Company), the LMA Fastrach™ (fixed curve tube and guiding handle – to facilitate insertion and fixation) (Laryngeal Mask Company) and the LMA Unique™ (single use – prevention of disease transmission) (Laryngeal Mask Company) [1]. The new features are that the airway tube incorporates a drain tube within its lumen to shorten and straighten its path, it is oval-shaped to match the shape of the mouth and to reduce rotation in the pharynx, the inner cuff has been strengthened to prevent airway obstruction from infolding and epiglottic fins have been added to prevent airway obstruction from epiglottic downfolding.

With Ethical Committee approval and informed consent, one of us (AZ) conducted a pilot study to determine ease of insertion (number of insertion attempts and time taken from picking up the device to the first breath), the oropharyngeal leak pressure, the fiberoptically determined anatomic position, the intracuff pressure changes and the frequency of airway trauma and morbidity. Twenty-two patients (ASA I/II, aged 18–60) were studied. Induction of anaesthesia was with fentanyl 0.5–1 μg.kg⁻¹ and propofol 2–3 mg.kg⁻¹. The lungs were manually inflated via a facemask using 2–3% sevoflurane in oxygen. Additional boluses of propofol were given as required until the jaw thrust test was negative. The LMA Supreme was inserted using a single-handed rotational technique like the LMA Fastrach and the cuff inflated to 60 cmH₂O. A size 4 mask was used in all patients as the size 5 was unavailable for male patients. A gastric tube was inserted through the drain tube and its position confirmed by epigastric auscultation. Maintenance of anaesthesia was with 1.5–2% sevoflurane in nitrous oxide and oxygen using a circle system with fresh gas flow of 3 l.min⁻¹. Patients were initially ventilated and then allowed to breathe spontaneously.

The results are presented in Table 3. Insertion was easy at the first attempt in all patients and an effective airway time of 28 s. Oropharyngeal leak pressure averaged 37 cmH₂O and increased during anaesthesia. This was probably

Table 3 Patient demographic details and results of use of LMA-Supreme™.

| Male/female | 4/18 |
| Age (year) | 38 (15) |
| Weight (kg) | 73 (11) |
| Height (cm) | 171 (7) |
| ASA physical status, I/II | 19/3 |
| Mallampati score I/II/III | 12/9/1 |
| Duration of anaesthesia (min) | 66 (41) |
| Ease of insertion | 22/0/0/0 |
| (easy, moderate, difficult, impossible) |
| Effective airway time (s) | 28 (5) |
| Oropharyngeal leak pressure, cmH₂O | 35 (5) |
| At 1 min (n = 22) | 38 (4) |
| At 30 min (n = 22) | 39 (4) |
| At 60 min (n = 9) | 39 (4) |
| Intracuff pressure increase, cmH₂O | 24 (11) |

Data are number or mean (SD).
related to an increase in intracuff pressure. The vocal cords were visible within the view of an endoscope from the distal end of the airway tube in all patients. Gastric tube insertion was successful at the first attempt in all patients. There was no blood on the device at removal and no lip, tongue or mouth trauma. No patient had a sore throat, dysphagia or dysphonia 2 h postoperatively.

We conclude that the LMA Supreme appears to bring together in a single device many of the best features of the ProSeal, Fastrach and Unique laryngeal mask airway devices. Comparative studies with these and other devices are currently underway to better determine the safety and efficacy of the LMA Supreme and to help define its role in anaesthesia and emergency medicine.

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Reference
1 Brimacombe J. Laryngeal Mask Anaesthesia. Principles and Practice, 2nd edn.

Corporate manslaughter

The Corporate Manslaughter and Corporate Homicide Act 2007 [1] received Royal Assent on 26 July 2007, and comes into force on the 6 April 2008, after which manslaughter will no longer be necessarily considered a crime that only a single individual can commit. The Act has ramifications for anaesthetists as employees of a corporate body (that is, an NHS Trust), particularly those involved in senior management.

The legislation was introduced in response to increasing recognition by the courts of the role that poor organisation and management can play in the delivery of care which results in a potentially avoidable death, and as such, strengthens the ongoing drive towards improving patient safety. In the medical setting, the offence of corporate manslaughter will be committed when a hospital Trust owes a duty of providing reasonable, safe care for a patient or employee, but breaches that duty through gross mismanagement, causing the patient’s (or the employee’s) death [2].

The case of two junior orthopaedic surgeons from Southampton University Hospitals NHS Trust, who were given suspended sentences after the death of a 31-year man from toxic shock syndrome following elective knee surgery, is instructive as to the offence the new Act encompasses. The prosecution rested on a corporate failure by the hospital to supervise the two doctors, and the hospital itself was successfully prosecuted under the Health and Safety at Work Act 1974, and fined £100 000 [3].

To convict a Trust, the prosecution has to prove that ‘senior management’ failed to take reasonable care, at a standard far below what could reasonably have been expected of the Trust in the circumstances. Senior management is defined as ‘persons who play significant roles in (i) the making of decisions about how the whole or a substantial part of the organisation’s activities are to be managed or organised, or (ii) the actual managing or organising of the whole or a substantial part of those activities’. This might include anaesthetists who are Lead Clinicians, Clinical Directors, Divisional Directors or Medical Directors, but may also involve anaesthetists who are members of organisational bodies of a Trust, for example, equipment or drugs committees, appointment committees or training committees.

Anaesthetists in senior management positions may draw comfort from the fact that the Government expects the Act to be used only in the most serious cases, but must appreciate the importance attached to health and safety legislation and risk management by the Act when developing Trust policies, particularly the supervision and training of junior staff to whom a duty of patient care may be delegated [4]. Furthermore, anaesthetists should undertake to inform senior management of practices that they currently consider to fall far below an acceptable standard of care, in order that potential liability under the Act is avoided.

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References

Drug incompatibility reaction with use of fluorescein during anaesthesia

We report a potentially dangerous drug incompatibility reaction between Robinul®–Neostigmine (Anpharm Ltd, Tipperary, Ireland) and intravenous fluorescein. This occurred during an anaesthetic for confocal endoscopy, a relatively new technique which involves the administration of fluorescein to facilitate image capture by a laser fluorescence microscope viewing the enteral mucosa. During a standard anaesthetic with propofol induction, neuromuscular blockade with atracurium, and intermittent positive pressure ventilation using isoflurane in an oxygen and air intravenous fluorescein 10% 5 ml (Martindale Pharmaceuticals, Romford, UK) was given via the side port of a cannula through which was running a normal saline fluid bolus. At the conclusion of the procedure,