monitoring respiratory rate without the need for a respiratory reserve bag, during spontaneous ventilation. There is a self-inflating bag for controlled ventilation. The machine is robust with no electronic and few moving parts, thus requires minimal maintenance and disposables. An oxygen concentrator can be added to allow the use of supplemental oxygen if electricity is available.

We visited Hoima Referral Hospital in Uganda with a team from North Hampshire Hospital in Basingstoke, Hampshire, UK. A well-established link with this hospital enables groups of volunteers to visit Hoima three to four times a year and work alongside the medical professionals, providing clinical teaching.

We anaesthetized four patients for Caesarean section using the portable Diamedica Glostavent during our stay. Two of the women were suffering with eclampsia, a third patient had cord prolapse, and the last presented haemorrhaging with grade 4 placenta praevia.

All cases would have been classified as ‘category 1’ Caesarean sections according to the classification system suggested by Lucas and colleagues’ widely used in the UK.

We used thiopental and succinylcholine for a rapid sequence induction for all four patients. Positive pressure ventilation was maintained by hand until spontaneous respiration resumed. Anaesthesia was maintained with 2% isoflurane using the draw-over vaporizer. Monitoring comprised a manual sphygmomanometer, a hand-held portable oxygen saturation finger probe, and a stethoscope. End-tidal gas monitoring was not available.

We found that the portable Diamedica Glostavent worked smoothly with and without oxygen, all the patients made a good recovery. The breathing circuits were reliable in both spontaneous and in intermittent positive pressure ventilation modes. In particular, the spinning disc in the centre of the exhaled limb is an ingenious and simple respiratory monitor where there is no end-tidal gas monitoring. Moreover, in unfamiliar surroundings, it was helpful to be able to use a volatile agent that was familiar to us (isoflurane rather than ether) and to deliver it using equipment which, although novel, felt instinctively familiar.

The only problems we encountered were difficulty with filling the vaporizer (a funnel larger than the steel one supplied was require to avoid split liquid isoflurane) and the inevitable fragility of using disposable tubing—this would not be robust over the course of prolonged use and carrying lots of disposables defeats the purpose.

We would highly recommend using this equipment in similar circumstances.

Declaration of interest
None declared.

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Spinal cord stimulator and epidural haematoma

Editor—We present an unusual case of delayed onset epidural haematoma caused by lead migration which developed 72 h after a spinal cord stimulator trial, followed by spontaneous resolution.

Mr PC is a 52-yr-old male with hypertension and chronic hepatitis C, who sustained a back injury in 2004. He underwent lumbar decompression and laminection for herniated lumbar disc disease. Several years later, he was seen at the University Pain Clinic with diagnoses of chronic pain syndrome, post-laminection syndrome, and bilateral lumbosacral radiculitis. His pain management regimen, including oral analgesics and epidural steroid injections, had proven unsuccessful. The decision was made to proceed to trial of a spinal cord stimulator.

Stimulator placement was uneventful, with epidural entry of the leads at the T12 and L1 interspace, using 14 G Tuohy epidural introducer needles, and electrodes (1.87 mm in diameter) covering from T8 to T10 levels bilaterally. For the next 72 h, he reported a >50% relief of his low back pain with improved ambulation. On the third day of the trial, however, the patient noticed the sudden relocation of stimulation to his right flank, with an abrupt onset of 10/10 ‘burning’ lower back pain, radiating down both lateral thighs, and accompanied by inability to lift his knees. Patient exhibited neurological deficits and loss of rectal tone. The trial leads were immediately removed.

A stat spine magnetic resonance imaging (MRI) identified an epidural or subdural fluid collection, surrounding and compressing the thecal sac and spinal cord, extending from C7 to L3 (Fig. 1), which was interpreted as possibly a rapidly developing epidural haematoma.

Preoperative neurosurgical evaluation, conducted within a few hours after MRI, however, revealed a spontaneous improvement of lower extremity sensory and motor function, along with complete restoration of rectal tone, and improved back pain. Surgical decompression was held off. By the following morning, the patient fully regained motor and sensory function with uneventful discharge home on hospital day 5. A follow-up visit 5 days later revealed no residual neurological deficits. Repeat MRI showed complete resolution of the epidural haematoma. Six weeks after the trial, the patient underwent an uncomplicated permanent implantation of a spinal cord stimulator.
Spinal cord stimulation is a well-established and effective treatment for a variety of chronic, intractable pain syndromes, with 27,000 stimulators being implanted annually in the USA alone. Known complications are equipment failure, pain in the region of hardware implantation, infection, and rarely haematomas and spinal cord injury, which necessitate timely, targeted interventions. The true incidence of these complications, however, is not known, although a retrospective analysis using a manufacturer and user facility device experience (MAUDE) database reports the incidence of epidural haematoma as about 0.19%. Subsequent paraparesis after haematoma can prove devastating to the patient as it may, in fact, leave the patient with permanent residual neurological deficit.

In conclusion, lead migration is the likely cause of epidural haematoma, not the needle trauma. In particular, the MRI showed a ‘thin spread’ epidural haematoma. This may explain the spontaneous resolution of the patient’s symptoms, as the haematoma spread along the spine, relieving pressure and preventing compression to any single isolated area.

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**Use of retromolar intubation in paediatric maxillofacial trauma**

Editor—We would like to present the usefulness of retromolar tracheal intubation for airway management in paediatric maxillofacial trauma. A shared narrow operative field, that is, the oral cavity, in these cases necessitates good cooperation between the surgeon and the anaesthetist. The use of retromolar intubation can be a good alternative in airway management for these patients aged <15 yr old (before narrowing of this space by the eruption of the permanent second molar). The room for the placement of the retromolar tube is basically limited by the eruption status of the last molar teeth.

After approval by the ethics committee and informed written consent from the parents, retromolar tracheal intubation was performed in 48 selected paediatric patients with...