quoted as being 0.31%. This represents the risk where the patient was symptomatic. It probably exaggerates the risk where the patient is HIV positive but not symptomatic because infectivity probably depends on the titre of virus and the volume of blood transmitted. The titre of virus is much lower in asymptomatic HIV positive patients than in those with AIDS.

Routine testing after needle stick injuries need not identify the patient by name. The name of the health care worker can be used to identify the specimen, thus protecting the confidentiality of the patient. The cost of such testing would be worthwhile because useful data would be gathered and individuals who sustain needle stick injuries would have the benefit of knowing the risk they have incurred, allowing them to take appropriate precautions and be appropriately treated.

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Glass ampoules

To the Editor:

Most anaesthetists open dozens of glass ampoules each week. The quality of the scoring varies with ampoule. Some, notably Diprivan (propofol) and Lidocaine 20 ml ampoules break with difficulty, often resulting in lacerations of the thumb and forefinger.

Therefore, we have devised a simple, readily available device for opening large glass ampoules (see Figure). The end of an 8.5 oral endotracheal tube is cut off to include the adapter. The neck of the ampoule is inserted into the endotracheal tube adapter and snapped smartly, thereby opening the ampoule and avoiding injury should it shatter at the neck. The broken end of the ampoule will then drop out with a gentle shake, or can be pushed out with a stylet.

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FIGURE

Continuous intercostal nerve block following thoracotomy

To the Editor:

We read with interest the paper by Chan *et al.* (Can J Anaesth 1991; 38: 733–9) and would like to comment on the technique and update your readers regarding our quoted paper.

We have recently demonstrated by contrast computed tomography that the site of action of continuous extrapleural intercostal nerve block was in the paravertebral space.¹ Paravertebral block not only affects the intercostal nerves more effectively due to their lack of fascial sheath but also blocks the posterior primary rami which mediate pain from straining of the ligaments of the costovertebral and costotransverse joints and the posterior spinal muscles. By placing the catheters 7–8 cm lateral to the vertebral column, Chan *et al.* would have missed the posterior primary rami. This may explain the lower efficacy of their technique.

Placing the catheter in the paravertebral space² obviates the need for more than one catheter since the spread of anaesthetic agent averaged six intercostal spaces.¹ This technique has also been demonstrated to be effective after pleurectomy with preservation of the parietal pleura overlying the paravertebral space.³ The breach of pleura following most routine thoracotomy should not exclude its application.

Chan *et al.* criticised our original pilot study⁴ for not recording the pain scores. Our randomised, prospective, double-blind study has confirmed the efficacy of continuous intercostal nerve block after thoracotomy not only in reducing pain scores but also in aiding postoperative recovery of pulmonary functions.⁵ This leads to a reduction of postoperative pulmonary complications after

pulmonary resection.⁶ The safety of this method used for five days is demonstrated in our experience of over 800 patients.

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REPLY

We thank Drs. Eng and Sabanathan for their comments on our paper. The technique of continuous intercostal nerve block described in our study was based on the findings that an injected bolus of local anaesthetic in large volume into a single intercostal space can spread to and achieve anaesthesia in multiple adjacent intercostal levels.¹⁻³ We assume that our technique would have a similar target site of anaesthetic activity as the conventional intercostal nerve block approach since the landmark for needle and subsequent catheter insertion, i.e., 7-8 cm from the posterior midline, was similar. The major difference from the conventional method is that by inserting two indwelling catheters, repeated local anaesthetic injections may continue to block peripheral intercostal nerves without the unpleasant experience of multiple needle punctures.

As clearly demonstrated, the technique of continuous extrapleural "intercostal" nerve block used by Drs. Eng and Sabanathan is quite different from ours in that the indwelling catheter is placed in the paravertebral space under direct vision.⁴⁻⁵ Local anaesthetic deposited in this region will block not only intercos-

tal nerves, but also posterior primary rami. In our opinion, this method is more appropriately named continuous extrapleural "paravertebral" nerve block since the site and mechanism of action would be similar to that of conventional paravertebral nerve block. With this direct approach to the paravertebral space, it is likely that potential risks of dural puncture, postural headache and inadvertent subarachnoid injection would be minimized.

Despite major differences in the mechanisms of action, there are similarities between the technique of Eng and Sabanathan and that of ours. In both cases, the common goal is to achieve the desired block with a direct approach, not blindly. Under direct vision, catheters are more likely inserted successfully with the least amount of trauma and a higher degree of accuracy.

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Tumour invasion of the brachial plexus: management of pain with intrapleural analgesia

To the Editor:

I would like to present a case that illustrates a different use of intrapleural analgesia in a cancer pain patient. This elderly man presented to our department with intractable pain caused by metastatic invasion of his left brachial plexus, from an adenocarcinoma of the palate. He had not responded to radiotherapy, and was experiencing severe pain (VAS 7), poorly controlled with MS-Contin, MOS, and carbamazepine. He was also having side effects from this regimen.

It was decided to treat the patient with sympathetic blockade of the cervical and upper extremity area to rule out any sympathetically maintained pain. Because of metastasis in the anterior cervical triangle, a stellate ganglion block was deemed contraindicated. We elected to