33 per cent oxygen, 66 per cent nitrous oxide and two per cent halothane breathing spontaneously via a face mask. Surgery and anaesthesia were unremarkable until the tourniquet was deflated after 50 min of occlusion. Within five minutes increasing tachypnoea and laboured respirations were noted. In the recovery room the patient exhibited clinical and radiological features of acute pulmonary oedema. The PaO_2 was 57 mmHg (7.6 kPa) with an inspired oxygen of 40 per cent. A provisional diagnosis of pulmonary aspiration was made and the patient was transferred to the intensive care unit, where he was re-anaesthetized, the trachea was instituted and the lungs were ventilated mechanically with positive end–expiratory pressure. Tracheal aspiration revealed frothy pink pulmonary oedema fluid with no evidence of aspiration of gastric contents. Pulmonary artery catheterization revealed PA pressure of 25/16 mmHg, an occlusion pressure of 8 mmHg but pulmonary vascular resistance was not determined. Neisseria meningitidis was isolated from the joint aspirate and one blood culture. High-dose benzylpenicillin was commenced. Eight hours after admission to the ICU a dramatic improvement in clinical signs had occurred and chest radiology was normal. The trachea was extubated and arterial blood gas analysis breathing 28 per cent inspired oxygen was satisfactory. Thereafter, he made an uneventful recovery.

There are many causes of acute pulmonary oedema and it was difficult to define the aetiology in this case. The wedge pressure excluded a cardiogenic cause. The absence of systemic arterial hypotension excluded a hypotensive insult to the lung, and upper airway obstruction did not occur at any time. The absence of associated features makes anaphylaxis unlikely. The onset of tachypnoea shortly after tourniquet deflation is consistent with a causal relationship, but in such circumstances the systemic effects of tourniquet deflation are mild and cardiopulmonary compromise is unusual.[1] It is proposed that tourniquet deflation was associated with a bacteraemia which caused acute non-cardiogenic pulmonary oedema due to increased microvascular permeability, and this mechanism is consistent with the rapid clinical recovery. Sepsis can cause pulmonary oedema[2] by increasing microvascular permeability[3] and endotoxin infusions have been used in animal models of acute lung injury.[4] Primary meningococcal arthritis is very rare,[5] but arthroscopy is known to precipitate bacteraemia in meningococcal arthritis,[6] and meningococcaemia has caused acute pulmonary oedema in children.[7]

The contribution of sepsis to the aetiology of this patient's pulmonary oedema is not proven, but it suggests that septicaemia may be associated with severe respiratory complications which may be precipitated by deflation of a limb tourniquet if used in the presence of a septic focus.

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A new syringe holder

To the Editor:

In most operating rooms the anaesthetist has only a small workspace which is often cluttered with a variety of equipment and a collection of syringes. Some of the syringes are clean, others are in use. Some are intended for the next case, and some are prepared in case of emergency. Some may have exposed needles. There is a considerable risk of syringe-swap errors and of needle-stick injuries, and it is often difficult to find the appropriate drug in a hurry.

I have made a device which helps solves these problems (Figure). It keeps the workspace tidy, and increases the amount of usable space. It permits one-handed re-sheathing of needles, thereby decreasing the risk of

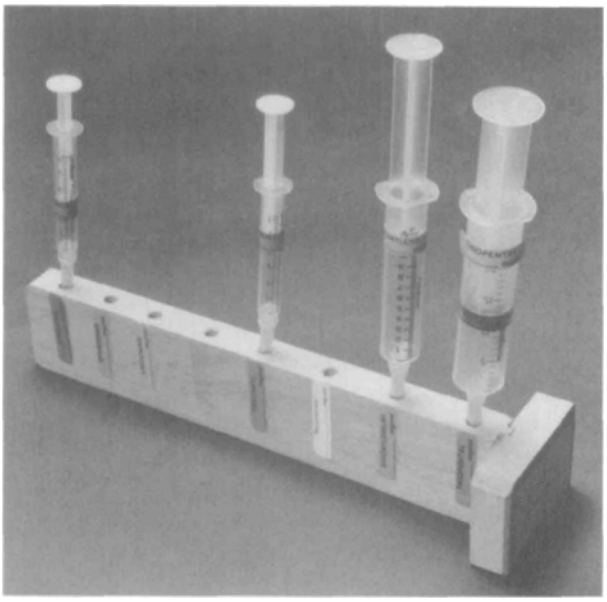

FIGURE Syringes stored neatly and safely in a predetermined order.

needle-stick injury. It stores syringes in a set pattern so that emergency drugs are clearly visible and readily available. It can also be used to transport syringes from one anaesthetizing location to another. The device is T-shaped when viewed from above. It is 50 mm tall, 70 mm across the top of the "T," and 270 mm long. Eight vertical holes, each 6 mm in diameter and 40 mm deep, have been cut in the long axis of the "T." Each hole accepts the lower part of the sheath of an intravenous needle, so that only the wider 10 mm protrude.

Syringes, with the needle and sheath attached, can be stored by inserting the sheath into one of the holes. When a drug is required, the syringe and needle can be removed with one hand, leaving the sheath in place. As the syringe is replaced, the needle is automatically re-sheathed, without risk of a needle-stick injury. At the end of anaesthesia, the used syringes can be removed with their needles and sheaths attached.

The short axis of the "T" not only provides stability, but also identifies the end at which the routine drugs and larger syringe sizes are placed. The other end is reserved for emergency drugs, which are kept in smaller syringes. The holes are identified by colour-coded adhesive labels which are also used to label the syringes. The order: induction agent, succinylcholine, non-depolarising muscle relaxant, narcotic, spare, local anaesthetic, vasopressor, atropine, has been most satisfactory.

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Erratum

The authors of the paper entitled "Epidural sufentanil for post-Caesarean section analgesia," Can. J Anaesth 1990; 37: 432–7, should have included D. M. Ansley MD FRCPC.