Injection techniques

Disposal of needles

Recapping of used needles should be avoided, to eliminate as far as possible the risk of accidental puncture of the medical practitioner or practice nurse. The risk of contracting such infections as hepatitis B and AIDS from a sharps injury is ever-present. Direct disposal into a sharps container must be practised. There are many types of sharps containers available for use in the surgery and even in the doctor’s bag.

The ‘take it with you’ needle disposal unit consists of a plastic bottle 2.5cm in diameter and 8cm in depth. The lid has an opening with a plastic flap on the underside. This opening is designed to allow introduction of the needle attached to its syringe and then withdrawal of the syringe to ‘trap’ the needle in the container. After the needle is introduced into the centre of the opening, it is tilted to the side. The syringe is then pulled sharply upwards to disconnect the needle (see the figure above). (In Australia the unit is available from Go Medical Industries Pty Ltd.)

Recapping of needles

Although the recapping of needles should be avoided, probably the safest way, if it really must be done, is to scoop up the needle guard with the used needle and syringe unit, using the dominant hand only. This reinforces the principle of always staying ‘behind the needle’, and keeps the thumb and forefinger of the non-dominant hand out of danger.

Rectal ‘injection’

When no veins can readily be found for intravenous injections, in some emergency situations the use of the rectal route is effective.

Diabetic hypoglycaemia

In some unconscious patients it may not be possible to administer the ‘difficult’ intravenous injection of 50% glucose due to such factors as vasoconstriction and obesity in the patient.

However, the glucose can be given simply by pressing the nozzle of the syringe (usually a 20ml syringe) gently but firmly into the anus and slowly injecting the solution.

Convulsions

In children with a persistent febrile convolution or in patients with status epilepticus, the rectal route can be used for administering a diazepam or paraldehyde solution with amazing success.

Example: Consider a two-year-old child (weight 12kg) with a persistent febrile convolution. The dose of diazepam injectable is 0.5mg/kg, so 6mg (1.2ml) of diazepam is diluted with isotonic saline (up to 5ml of solution) and introduced into the rectum.

These procedures are selected from Practice Tips by Professor John Murtagh, published by McGraw-Hill Book Company, 1991. We invite you to send in your practice tips for publication in this section. Send details of procedures that you find useful in your practice to: The Editor, SA Family Practice, PO Box 3172, Cramerview 2060.