A Simple Technique for Placement of the Univent Bronchial Blocker

To the Editor.—The Univent tube (Vitalaid, Lewiston, NY) was first described by Inoue et al. in 1982 and has been used in our institution for almost 5 years. The Univent tube has been described for use in aortic aneurysm repair, bronchopleural fistula surgery, lung transplantation, and a variety of other procedures requiring one-lung ventilation.

I recently encountered difficulty in placement of the bronchial blocker of a 8.5-mm inner diameter Univent tube in the left mainstem bronchus of a male patient with left pneumonectomy. Our usual procedure with the Univent tube is to intubate the trachea with a single-lumen tube and guide the blocker into place using a twisting motion on the blocker shaft while pushing the blocker into the target mainstem bronchus under direct vision with a fiberoptic bronchoscope. In this case, the angle of takeoff of the mainstem bronchus was greater than the degree of rotation we could put on the Univent bronchial blocker, and the blocker repeatedly entered the right mainstem bronchus.

Other maneuvers were tried unsuccessfully: (1) rotation of the tube assembly toward the operative side ("tube rotation method" in package insert) and (2) bronchial intubation using the fiberoptic bronchoscope as stylet. The outer diameter of this size of Univent tube may have been too large to easily approach the carina.

I finally overcame this inability of the blocker to negotiate the left bronchus by partially deflating the tracheal tube cuff of the Univent tube and turning the patient’s head to the operative (left) side. This had the effect of "pointing" the blocker directly at the left mainstem bronchus. The bronchus was then easily cannulated.

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Needleless Intravenous Administration System

To the Editor.—Despite the Occupational Safety and Health Administration recommendations against the recapping of needles, until recently most members of our anesthesia department, both Certified Registered Nurse Anesthetists and physicians, have used needle-tipped syringes to inject into the in-line injection ports of intravenous tubing. The tendency then was to recap rather than have unprotected needles on the anesthesia cart. I developed a way to inject safely into any port of intravenous tubing, which allows flexibility in choice of primary injection site.

My system consists of a Baxter Needle-Lock device (NLD; Baxter Healthcare Corporation, Santa Ana, CA) plus a three-way luer lock stopcock attached to the infusion port of the NLD (fig. 1). The NLD is an 18-G needle with a permanent protective collar that prevents needle-stick injury. The collar has a longitudinal slot with an intersecting partially circumferential slot. The slots allow the NLD to be

Fig. 1. Components of the administration system. The Needle-Lock device portion is properly attached to the intravenous tubing.

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inserted into an in-line injection site of the Baxter intravenous tubing, and a simple twist of one-quarter revolution traps the tubing within the slots, preventing removal of the NLD by tugging. Designed only for use with secondary infusion tubing, insertion of the NLD alone without tubing results in retrograde flow through the NLD from the primary tubing. Attaching a three-way stopcock to the female luer lock fitting of the NLD infusion port prevents backflow through the NLD. My device promotes use of needleless syringes, obviating the need to recap contaminated needles.

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Barrier Flaps for Continuous Caudal Anesthesia in Pediatric Patients

To the Editor—Continuous infusions via a caudal catheter have been discouraged by some authors because of the risk of bacterial contamination in infants who have not acquired sphincter tone. We suggest the following technique to address these concerns.

Our method of application of the caudal barrier flap is as follows. After the caudal catheter is placed, the exposed portion of the catheter is secured by Steri Strips near the exit site. A transparent dressing is placed such that it extends approximately 5 mm below the catheter’s exit site (fig. 1A).

Next, a waterproof, transparent drape with adhesive on a single edge is cut to form the barrier flap. The width of the flap should extend from greater trochanter to greater trochanter. The length of the drape is 12–18 inches. The barrier flap is secured with liquid adhesive. The flap is applied just below the distal end of the catheter dressing (fig. 1B). Care is taken to place the flap without wrinkles or air pockets to ensure an occlusive seal. The gluteal skin and fold may require gentle stretching to accomplish smooth application. Once the adhesive is dry, the barrier flap is turned upward against the back (fig. 1C). The diaper is placed, and the free end of the flap is folded onto the outside of the diaper (fig. 1D). The process usually takes less than 10 min.

Caudal barrier flaps of various designs are used by some anesthesiologists who employ continuous caudal anesthesia in infants and children who have not developed urinary or fecal control. The flora of the perianal skin and deep soft tissues cannot be irradiated entirely. Abouleish et al. reported that sepsis in the caudal region did not decrease the incidence of positive skin cultures in adults. The introduction of skin flora into the neuroaxis has resulted in epidural infections. The incidence of epidural abscess in adults is 1.2 per 10,000 hospital admissions per year. The pediatric incidence of infection from continuous caudal anesthesia has not been cited.

Though the efficacy of such a drape remains to be proved, it is clear that gross contamination of the caudal catheter dressing and entry site are reduced. We advocate the use of the caudal barrier flap in all pediatric patients receiving continuous caudal infusions, with

Fig. 1. (A) The caudal catheter dressing in place. (B) The caudal barrier flap is applied just distal to catheter dressing. (C) The barrier flap is outstretched and pulled upward. (D) The free edge of the flap rests on the outside of the diaper.

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