dle * (h) which was inserted through the cork of the bottle to the feeding tube. Another hose hub needle was placed through the cork of the bottle as a vent.

In the use of this setup it was noted that difficulty was often encountered in the removal of the short tubing and the reconnection of the long tubing to the caudal needle. To eliminate this difficulty, Luer-Loc slip adapter ** (i) was attached to the free end of the long tubing (j), thus permitting direct attachment to the short tubing and eliminating the necessity for removing the short tubing from the needle.

The hose tip caudal needle (Hingson-Ferguson) (a) has no marking for orientation of the position of the bevel of the needle point once the needle has been inserted. This has been a disadvantage at times when unilateral anesthesia occurred and there was no simple way of determining the direction of flow of the anesthetic agent. A new needle has been constructed replacing the hose tip with a notched female Luer loc tip wih flush fitting stilet (k). The notch on the Luer-Loc tip corresponds to the side of the bevel on the needle point (fig. 1).

This new needle makes it simple to locate the bevel at all times by referring to the notch on the Luer-Lok tip. An added safety factor is afforded since any torsion of the needle is immediately apparent by the disturbance of the relationship between the bevel and the notch. As soon as torsion is noted the needle is discarded. Continued use of a needle which has undergone sufficient strain to cause torsion may result in breaking of the needle. Appreciation of slight degrees of torsion was difficult with the original hose tip on the needle.

With the new Luer-Loc tip on the needle it became necessary to place a Luer-Loc slip adapter (i) on the free end of the short rubber tubing (1). Thus, connection to the needle is made easily. For connection to the drug reservoir the long tubing may be attached without removing the short tubing or the short tubing may easily be removed and the long tubing connected directly to the needle.

We are deeply grateful to Mr. Oscar Schwidetzky of Becton, Dickinson Company for his patient advice and to the Becton, Dickinson Company of Rutherford, New Jersey for constructing the new needle and supplying us with needles for this work.

Becton-Dickinson Catalog Numbers:
* 440N.
** 608/L.

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To the Editor:

Perhaps one of the most painful complications of intravenous therapy is the extravascular deposit of the intravenous solution. This complication usually occurs unbeknown to either the patient or those in attendance. It causes the patient great physical discomfort, and he in turn justly complains until the solution is absorbed.

Previously these accidents have been treated by injections of procaine solutions directly into the swelling, application of warm moist dressings and administration of sedatives. This was purely symptomatic treatment but it did little to hasten absorption of the deposit.

Recently hyaluronidase was introduced as an aid in hypodermoclysis and local infiltration analgesia. Hyaluronidase is

now conceded to be the spreading factor of Duran-Reynals and McClean. It acts by neutralizing hyaluronic acid normally present in the body tissues. Hyaluronic acid tends to limit the spread of any injected fluid. When it is neutralized, however, solutions, particularly those under pressure, diffuse and therefore are more rapidly absorbed.

With this as a background, we have found that we could quickly relieve pain caused by extravascular deposits of intravenous fluids by injecting 300 T.R.U. of hyaluronidase. This amount of hyaluronidase is dissolved in 10 to 20 cc. of physiologic saline solution, depending on the size of the tumefaction, and infiltrated into and around the edges of the swelling.

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