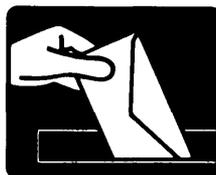

Letters to the Editor and Comments on Practice



Insulin Syringe Reuse

An editorial in the March-April 1984 issue of *DIABETES CARE* pointed out the possibility of reutilization of insulin syringes. These preliminary studies as well as the potential economic importance deserve further consideration.

In our experience, 120 insulin-treated diabetic patients were asked about their daily practice of insulin injections. Aseptic conditions were usually maintained: 65% systematically washed their hands before injection, 79% always cleaned their insulin vials with a disinfectant before use, and 95% cleaned their skin with alcohol at the injection site.

Among the 120 diabetic patients questioned, 10 (8.3%) reused plastic disposable insulin syringes for as long as a few months to a few years. The number of times that the syringes and needles were reused varied from 2 to 16 (3.45 ± 4.3 SEM).

Between injections the needle was recapped, usually without any disinfectant, and needle and syringe were stored at room temperature in 9 of 10 cases and in a refrigerator in one case.

Local reactions were rare. Two patients described pain at the injection site after three injections with one needle, probably due to the needle becoming blunt. One young diabetic individual, living in precarious social conditions and not using aseptic technique, developed an abdominal wall abscess after reuse of injection materials.

In a prospective study, 37 insulin-treated diabetic patients agreed to receive three consecutive insulin injections with the same insulin syringes and needles during their hospital stay. Aseptic rules were as follows: the rubber stopper, insulin vial, and injection site were disinfected with alcohol. The needles were recapped after injections. The series was repeated from 2 to 20 times (7.3 ± 5 SEM) in each diabetic patient during his hospital stay, for a total of 813 injections. No localized infection at the injection site was observed. In three cases, the insulin vials became cloudy; however, bacteriologic cultures were negative. Localized pain at the injection site was described in 13 instances in 10 of the 37 patients. In the patients who described pain, it was reported 4 times after the first injection, 4 times after the second injection, and 5 times after the third injection. Damage to

the reused material was rare. In one case a needle was broken, and in another a needle was bent.

These results, in agreement with others, suggest that limited reuse of disposable materials for insulin injections may be performed without harm. Additional studies using a greater number of ambulatory patients are currently under way.

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Severe Diabetic Cardiac Autonomic Neuropathy in a 14-yr-old Girl, Normalized After 15 mo of Improved Glycemic Control

A.M. was 14 yr old and had had diabetes for 4 yr when she was referred to our office by her school in April 1984. Their chief complaint was daily episodes of syncope, usually occurring at 1100 h and lasting about 20 min. These episodes reportedly began on initiation of insulin therapy at the onset of diabetes, and were more or less continuous throughout the intervening years.

Since the patient's parents spoke little English, it was not possible to secure a lengthy or accurate medical history. We were advised that she suffered major learning disabilities, which supposedly began after the onset of syncopal episodes. She was and still is unable to perform simple mathematical operations such as addition or subtraction. Her appreciation of time is impaired in that she has great difficulty differentiating intervals of days from weeks or months. She admitted to