TABLE 1
Effect of suboptimal storage conditions on performance of Ames Dextrostix

| | Blood glucose (mmol/L) | | | |
|---|---|---|---|---|
| | N | $\bar{x}$ | SD | Coefficient of correlation |
| Reference group | 40 | 9.08 | 6.11 | |
| Group I | 40 | 9.21 | 6.22 | 0.98 |
| Group II | 40 | 9.61 | 6.69 | 0.98 |

Second, the effect of storage conditions before use on the performance of Ames Dextrostix was assessed. We divided bottles of Dextrostix into two groups at ambient laboratory temperature (24°C): group I was stored capped and group II was stored uncapped. Over a period of 2 mo blood samples were assayed using strips from each group and the results compared with those obtained using strips from previously unopened bottles (reference group). Results from both groups were similar to those from the reference group (Table 1), indicating that storage of Dextrostix under less-than-ideal conditions does not significantly alter their accuracy.

Finally, we investigated the effect of storage conditions after use to determine if Ames Dextrostix would maintain their initial developed color; the ability to reread the strips some time after the initial reading to check the original result would be useful in some clinical situations. We found that the developed color of Dextrostix, stored after use at ambient temperature in dessicated bottles, was unstable and faded rapidly in a nonuniform fashion. After 24 h the strips read only 34 ± 13% of their initial value. However, when stored singly, dessicated in a bottle at −20°C, developed color was retained. Under the latter conditions, the readings 1 wk after use were 95 ± 5% of initial values. On removal of the strips from −20°C to ambient temperature, the developed color remained stable for up to 2 h. Although storage at −20°C tends to make rereading of Dextrostix inconvenient, it should be feasible in a hospital situation where strips used during the night could be checked the following morning. Patients on home glucose monitoring, who were in possession of a freezer, could have their results checked at a follow-up clinic visit.

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# Dextrostix Reactivity Variation

Recalibration of the Dextrometer and Glucometer (Ames Division, Miles Laboratories, Elkhart, Indiana) whenever starting a new bottle of Dextrostix was recommended in a recent article in DIABETES CARE, and by the Ames Company. On the other hand, the manufacturers of Glucoscan (Lifescan, Mountain View, California), a rival meter, do not provide a method for recalibration and apparently believe that Dextrostix reactivity variation is not significant.

We recently evaluated Dextrostix reactivity variation in 14 Dextrostix supplied by our patients. The interval of time since the patient's opening of the container varied from 1 to 31 wk. Eight lot numbers were represented. The patient-supplied Dextrostix and 15 control Dextrostix from a single source were reacted with venous blood in random order, single-blinded, and measured by a Glucoscan meter.

The mean values of the patient-supplied Dextrostix and the control Dextrostix were 138 versus 141 mg/dl, respectively; the standard deviations were 16 versus 17 mg/dl, respectively; and the ranges of values were 122–149 versus 125–154 mg/dl, respectively. The values for variability of the control readings were similar to those previously reported in DIABETES CARE.

We conclude that variability in Dextrostix reactivity may be insignificant, especially when compared with variability of the operator technique. Further studies should be conducted to substantiate these findings since they affect patients' cost and selection of meters.

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# Cutaneous Complication of CSII Therapy

The cutaneous complications of continuous subcutaneous insulin infusion (CSII) have recently been reviewed by Pietri and Raskin.[1] I have noted an additional complication, which seems worthy of mention since it responded to a specific form of therapy.

The patient, a 12-yr-old boy, was placed on CSII because of inadequate control on conventional therapy. He used the Auto-Syringe AS*6C pump (Auto-Syringe, Inc., Hooksett, New Hampshire) with U-36 insulin. The insulin was pre-