were examined separately, BSN programs were significantly more likely to offer clinical experiences in pediatric ($t = -2.05$, $P = 0.04$), community ($t = -9.78$, $P = 0.0001$), and outpatient settings ($t = 3.89$, $P = 0.0001$). ADN programs focused significantly more on acute care experiences ($t = 4.45$, $P = 0.001$).

In terms of faculty characteristics, 69% had recently attended a continuing education program on diabetes, and 86% of subjects indicated an interest in information on other continuing education courses. Fifty-seven percent of faculty stated that they did not use diabetes-specific educational materials in their curriculum. Eighty-one percent of faculty were interested in the development of a diabetes care syllabus as an adjunct to other materials currently in use (e.g., textbooks).

Undergraduate nursing programs lay a basic foundation for the cognitive and clinical understanding of various disease processes. Faculty are faced with developing program curricula designed to prepare a competent general practitioner. These results suggest that most nursing faculty believe there is a need for diabetes materials to supplement current teaching tools. Based on these survey data, the Task Force for the ADA Council of Education will further explore the need to develop diabetes education materials for use by nursing faculty.

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Overnight Versus 24-h Urine Collection in Detection of Microalbuminuria

We read with interest the recent article by Tomaselli et al. (1) comparing albumin excretion rates determined on overnight and 24-h urine collections. We report similar findings, but in the pediatric age-group with assessment of several collections by each method.

Ten patients with insulin-dependent diabetes mellitus (mean ± SD age 14.2 ± 1.6 yr) attending our diabetes clinic and previously shown to have microalbuminuria (MA), defined as an albumin excretion rate (AER) of 15–200 μg/min, performed three 24-h urine collections and three overnight urine collections. Vigorous exercise was avoided during the 24-h collection period.

AERs on the 24-h collections were significantly higher than those obtained on overnight collections, with each of the 10 patients providing three urine collections by each method. The mean ± SD 24-h AER was 47.2 ± 37.7 μg/min (range 16–144 μg/min); mean ± SD overnight AER was 15.8 ± 8.9 μg/min (range 6–28 μg/min, $P = 0.04$). There was no significant correlation between the two methods ($r = -0.25$). The coefficient of variation of the three collections for each individual did not differ between the two methods (40 ± 24% for 24 h, 44 ± 19% for overnight).

When the lower cutoff of 15 μg/min was used to define MA, all 10 patients showed MA on 24-h collections, but only 4 patients showed MA on overnight collections. Our findings add to those of Tomaselli et al. (1), who looked at one collection, given the day-to-day variability in AER. The prognostic importance of patients showing daytime MA related to changes in posture, exercise, and blood pressure requires longer-term follow-up.

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Inhibition of Sleep-Induced Growth Hormone Secretion: No Effect on Diabetic Control

Atiea et al. (1) recently reported that an anticholinergic agent, pirenzepine, given at bedtime suppressed sleep-induced growth hormone secretion and attenuated the dawn phenomenon. Although not noted in their article, we previously made the same observation with oral methscopalamine bromide (Pamine, Upjohn, Kalamazoo, MI), an anticholinergic agent available in the United States (2). We then attempted to evaluate whether chronic use of Pamine (5 mg every night) would improve diabetes control with the following protocol.

Sixteen insulin-requiring (9 type I [insulin-dependent] and 7 type II [non-insulin-dependent]) diabetic patients who were on intensive insulin regimens were recruited. Three used insulin pumps; the remainder were on a

split-mixed regimen. All subjects tested their blood glucose at home 3–4 times/day. At the beginning of the study, the subjects were asked to faithfully record their glucose results and insulin doses. Two months later, a glycosylated hemoglobin value was measured, and the subjects began to take 5 mg Pamine each night before bed. After 2 more mo, glycosylated hemoglobin was measured again. Analysis included changes in fasting blood glucose levels, evening intermediate-acting insulin doses or overnight insulin infusion rates, and glycosylated hemoglobin values during the 2-mo periods before and after Pamine.

After starting Pamine, many patients noted a dry mouth throughout most of the day. Five subjects dropped out. Two type I diabetic patients discontinued the drug after experiencing two overnight hypoglycemic reactions during the 1st wk despite our advice to lower the evening dose of insulin. Three type II diabetic patients dropped out as well (2 to gastrointestinal side effects of the drug and the 3rd because her private physician increased her insulin doses dramatically after her initial glycosylated hemoglobin level was elevated).

Results in the remaining 11 patients were not encouraging. The pre- and post-Pamine fasting blood glucose concentrations were 7.3 and 7.0 mM, respectively. Glycosylated hemoglobin values were 8.0 and 7.8%, respectively (normal range 4.2–6.8%). The intermediate-acting insulin dose actually increased from 13.5 to 18.3 U. In the 3 pump patients, the overnight insulin infusion rate remained essentially unchanged (0.83 vs. 0.79 U/h). When the 7 type I diabetic patients were analyzed separately, their fasting blood glucose levels were identical (6.9 mM), whereas their glycosylated hemoglobin values improved only slightly (from 8.4 to 8.0%). This lack of a noticeable effect of Pamine cannot be explained by rebound hyperglycemia, because the reported prevalences of hypoglycemia were similar before and after the drug was started.

Although anticholinergic blockade of sleep-induced growth hormone secretion may be helpful in a few patients (e.g., possibly the 2 type I diabetic patients who experienced overnight hypoglycemic reactions shortly after starting Pamine), it does not seem to be a panacea for improving diabetic control. It could be argued that our patients were well controlled and would not be the ones in whom a clear-cut beneficial effect might be seen. However, more poorly controlled patients would no doubt respond to increased doses of insulin. We believe that there are so many variables affecting diabetic control that simply abolishing sleep-induced growth secretion and attenuating the dawn phenomenon by an anticholinergic agent at bedtime will not be a clinically useful approach to achieving near euglycemia.

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Adverse Effects on Diabetic Foot Ulcers of Highly Adhesive Hydrocolloid Occlusive Dressing

DuoDerm (Convatec-Squibb) is a flexible occlusive dressing that is impermeable to oxygen and water. It has been shown to be effective in treating leg ulcers, burns, and pressure sores and is the best-selling ulcer preparation in Sweden. Few adverse effects have been reported. It is recommended that the dressing be left on the wound for as long as 7 days or until leakage occurs. However, it may not be so useful in the treatment of distal diabetic ulcers, and I report two diabetic patients who had distal lesions probably caused by DuoDerm.

PATIENT 1

A 31-yr-old woman with insulin-dependent diabetes of 19 yr duration had multiple complications; she had received a kidney transplant for diabetic nephropathy and had undergone a right below-knee amputation for gangrene. Her left big toe developed gangrene and had to be amputated. The wound healed satisfactorily with conventional treatment, and after 7 wk, only a 3 × 3-mm well-granulated superficial ulcer remained. She went to a primary health-care center, where a DuoDerm dressing was applied to the ulcer. Seven days later, she returned to the Department of Medicine with fever and pain and edema of the foot. There had been no leakage from under the dressing, and when it was removed, a deep cavity with a 3 × 3-cm-diam opening was seen extending into her midfoot. The cavity contained pus, from which group B *Streptococci* were cultured. Despite treatment with large doses of parenteral antibiotics, the necrosis progressed, and a below-knee amputation was necessary.

PATIENT 2

A 28-yr-old woman had a 24-yr history of diabetes. She had proliferative retinopathy but no visual impairment and no nephropathy. She went to her primary health-care center because of dry feet with fissures on each heel. She was prescribed DuoDerm, with dressing changes ordered every 3 days. The patient reported that a yellow, foul-smelling wound exudate was exposed at