

Depression Screening Averts 'Diabetes Burnout'

BY KATE JOHNSON
Montreal Bureau

QUEBEC CITY — Diabetes patients and their physicians are at high risk for burnout, but they can sidestep some of that risk by ruling out depression, William Polonsky, Ph.D., said at the joint annual meeting of the Canadian Diabetes Association and the Canadian Society of Endocrinology and Metabolism.

"Depression is much more common in these patients—they are 1½ times more likely than average to have a major depressive disorder, and 37% of them have depressive symptoms," Dr. Polonsky said, citing his own study on the topic (*Pract. Diabetol.* 2001;20:20-9).

Such mood disorders make it harder for patients to initiate healthy behavior change and are a powerful predictor of hospitalizations for diabetic complications, said Dr. Polonsky, a certified diabetes educator in San Diego and author of a book called "Diabetes Burnout: What to Do When You Can't Take It Anymore" (Alexandria, Va.: American Diabetes Association, 1992).

Dr. Polonsky's research has shown that fewer than 50% of diabetes patients follow physicians' guidelines on healthy meals, exercise, and blood glucose monitoring.

In a soon-to-be-published study of 700 patients, he found that 24% felt hopeless about avoiding the long-term complications of diabetes; 17% felt that diabetes controlled their life; 15% felt unmotivated to maintain healthy habits; 14% felt angry, scared, and depressed; and 13% felt overwhelmed.

These attitudes and behaviors from patients can put their physicians at risk for burnout. "You may get discouraged and depressed, and you may stop helping," Dr. Polonsky said.

Patients may appear to lack motivation, but the problem is typically one of personal obstacles to good medical care. And mood disorders top the list of obstacles.

"Stay alert for undiagnosed depressive

disorders and screen regularly. I am a big believer in once-a-year depression screening questionnaires," Dr. Polonsky said.

If a yearly questionnaire does not fit well into a physician's routine, "tell patients they are at risk for depression and ask them two simple questions":

► During the past month, have you felt down, depressed, or hopeless?

► During the past month, have you had little interest or pleasure in things that you used to enjoy, such as food, reading, or sex?

Once depression is ruled out or treated, other obstacles can be tackled.

A common problem is that of unrealistic patient goals. To lose weight, many patients will set such challenging weight-loss goals that they become discouraged and abandon their efforts.

There is a surprising level of miscommunication between health care profes-

sionals and patients when it comes to giving and receiving instructions. "Many of our patients don't speak our language," he said. In one study that polled diabetes patients as they left their health care professionals' offices, patients and professionals disagreed on what issues were discussed almost 20% of the time, on decisions that were made almost 21% of the time, and on goals that were set 44% of the time (*Diabet. Med.* 2003;20:909-14).

Miscommunication may be partly due to patients' lack of "health literacy" and needs to be addressed. One study of 38 physicians and 74 diabetes patients found that physicians assessed patients' recall and comprehension in only 20% of 61 visits and for only 12% of 124 new concepts covered in the visits. But when an interactive educational approach was used, patients were 15 times more likely to have achieved glycemic control (*Arch. Intern. Med.* 2003;163:83-90).

Tackling a patient's diabetes burnout with such techniques is an effective strategy to avoid physician burnout as well, Dr. Polonsky said. ■

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Insulin Pumps Are Underused For Achieving Glycemic Control

BY KATE JOHNSON
Montreal Bureau

QUEBEC CITY — Diabetes care is "on the path to automated glucose control," with the promise of "intelligent" insulin pumps and devices in the near future, according to John Walsh, P.A.

Today's insulin pumps have an impressive capacity to improve currently suboptimal glycemic control in many patients with type 1 diabetes, he said at the annual meeting of the Canadian Diabetes Association and the Canadian Society of Endocrinology and Metabolism.

"Our current approach to diabetes does not work," said Mr. Walsh, a certified diabetes educator and author of "Pumping Insulin" and other books on diabetes. "For most patients, the hemoglobin [Hb] A_{1c} goal of 6.5% or less is not being met."

Patients with diabetes must make complex decisions about carbohydrate intake and insulin dosing several times every day. They often make poor decisions that may lead to imbalances in their blood glucose levels.

Insulin pumps can at least partially remedy this, but studies of patients who use pumps show only minimal improvements in their HbA_{1c} levels Mr. Walsh said.

"I don't think we've seen anywhere near the capacity that can be achieved with pumps," he said. It is partly a matter of clinicians lacking experience with pumps and needing to become more familiar with the formulas for programming them. But it is also a matter of not using the data that is collected by pumps and glucose meters to look for patterns and correct problems, he said.

Establishing the correct total daily dose (TDD) of insulin is probably the most important part of programming a pump; all other dosing formulas are based on the TDD. An appro-

priate starting TDD can be calculated using the patient's weight in kilograms, divided by 1.8, to yield the number of insulin units, he said.

The basal dose can be calculated at 50% to 60% of the TDD, and carbohydrate boluses can be calculated using what he calls "the 500 rule": Dividing 500 by the TDD gives the number of grams of carbohydrate that can be covered by 1 unit of bolus insulin. For example, if a patient's TDD is usually 50 units of insulin, applying "the 500 rule" would show that 10 g of carbohydrate requires 1 extra bolus unit of insulin, he said.

Once this basic pump formula is established for a patient, it can be fine-tuned. Advanced pumps can calculate exact correction boluses needed to lower high glucose readings, and with modern pumps they can also make adjustments to account for any unused insulin that is still in their system (known as "bolus on board").

As physicians become more familiar with pump formulas and programming, they should be able to access the pump's stored data to track a patient's dosing and blood glucose patterns and identify possible solutions to problems, Mr. Walsh said.

"Today's devices collect most of the necessary information about a patient's dosing schedule and carbohydrate intake, but it takes experience for a clinician to be able to quickly access that information and use it to make a treatment decision," he said.

The workload involved in this kind of care is heavy and will remain that way until pumps become more intelligent and begin taking over more of the analysis involved, he said.

"Until there is a device that can give patients immediate advice and foresee potential problems, HbA_{1c} will not reach target levels for most patients, and health care involvement will remain heavy," Mr. Walsh predicted. ■

Vardenafil Improves Erectile Dysfunction in Diabetic Patients

BY MICHELE G. SULLIVAN
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NEW ORLEANS — Regardless of glycemic control, vardenafil significantly improves intercourse success rates, compared with placebo, for diabetic men who do not respond to sildenafil, Culley Carson, M.D., reported in a series of posters presented at the annual meeting of the Endocrine Society.

Men with the worst control with hemoglobin A_{1c} (HbA_{1c}) greater than 8%-12% had the biggest increase in successful intercourse attempts, said Dr. Carson, chief of urology at the University of North Carolina at Chapel Hill.

Dr. Carson, who is a paid investigator for GlaxoSmithKline and a member of its advisory board, presented a posthoc subgroup analysis of the Patient Response With Vardenafil in Sildenafil Nonresponders (PROVEN) trial. The trial assessed the improvement of erectile function in 463 men with moderate to severe erectile dysfunction who were not responsive to sildenafil therapy. The subgroup analysis applied to 153 men in the group who had diabetes. The mean age of the patients was 60 years; 90% of the group was white.

After a 1-month treatment-free run-in period, the men were randomized to either placebo or one 10-mg vardenafil tablet/day, taken 1 hour before intercourse. They had the option to maintain that dose over the 12-week study, or, at weeks 4 and 8, to titrate to 5 mg or 20 mg

based on the efficacy and tolerability of the drug.

After 12 weeks, diabetic men in the active group reported a fivefold increase in the number of successful intercourse attempts over baseline (33% vs. 6%). Men in the placebo group reported a nonsignificant increase in successful attempts of 13% over 11% at baseline.

Improvements in successful intercourse attempts were noted across all levels of glycemic control, Dr. Carson said. The greatest increase occurred in men with the worst glycemic control, who had nearly a sevenfold increase in successful intercourse attempts, from 6% of attempts at baseline to 41% at the study's end. Men with the best control (HbA_{1c} less than 6.5%) had about a fourfold increase in successful attempts, from about 12% of attempts at baseline to 53% of attempts at the study's end.

Men with intermediate control (HbA_{1c} 6.5%-8%) also had about a fourfold increase in successful attempts, from about 6% at baseline to 26% at the study's end.

The most frequently reported adverse events in the study were dyspepsia (8% of active group vs. 0% placebo), flushing (6% active group vs. 2% placebo), nasal congestion (6% active group vs. 0% placebo), and upper respiratory tract infection (5% active group vs. 2% placebo). Three patients in the placebo group and five in the active group withdrew due to adverse events. ■