Diabetes in Men: Peer Support Boosts Control

Intervention saved staff time and resources, in addition to lowering HbA$_{1c}$ levels in patients.

BY DIANA MAHONEY

FROM THE ANNUAL MEETING OF THE
SOCIETY OF GENERAL INTERNAL MEDICINE

MINNEAPOLIS — A peer-support intervention was associated with better diabetes control, compared with conventional nurse-led case management, in a 6-month Veterans Affairs study of men with poor glycemic control.

In the randomized prospective study, hemoglobin A$_{1c}$ levels, insulin starts, and self-reported social support significantly improved in the 125 men with diabetes and HbA$_{1c}$ levels higher than 7.5% who were enrolled in a peer-support intervention.

The outcome measures did not improve in 119 matched patients who were randomized to usual care and conventional nurse-led case management, Dr. Michele Heisler reported.

Additionally, peer support was far less time intensive from a staff and resource perspective than other tested programs that have shown similar or less-significant improvements, Dr. Heisler said.

Blood pressure changes during the study were not significantly different for the two groups. Levels of diabetes distress and diabetes social support were assessed based on patient interviews, and new insulin starts were documented from patients' medical records.

For the study, all participants attended an initial session led by a Veterans Affairs nurse case manager, during which their baseline HbA$_{1c}$ and blood pressure measures were reviewed and their questions were addressed, explained Dr. Heisler of the University of Michigan in Ann Arbor.

After the initial meeting, patients assigned to the intervention arm participated in a group session designed to facilitate communication skills and help them set short-term goals for behavioral changes. Those assigned to usual care received nurse-led case management.

The demographics and baseline patient characteristics were similar in both groups.

"The mean age of the predominantly white [82%] male veterans participating in the study was 62 years, and the majority [63%] had an annual income less than $30,000, so this was a fairly poor group," Dr. Heisler said.

At baseline, the mean HbA$_{1c}$ levels for the intervention and control groups, respectively, were 8.03% and 7.93%.

Age-matched patients were paired within the same cohort to serve as peer partners, Dr. Heisler said. "Patients were encouraged to call their peer partners at least weekly to provide mutual support and encouragement," she noted.

"We developed a computer platform that enabled them to use their own phones to make calls without exchanging personal phone numbers, and it let us monitor and record the initiation, frequency, and duration of the calls. If patients hadn't made contact with each other within a week, they received reminders," she said.

Intervention participants also were offered three optional 1.5-hour group sessions at months 1, 3, and 6.

"Although these were nurse-led programs, they were completely patient driven and served as a forum for sharing concerns, questions, and strategies and for discussing progress on their action plans," Dr. Heisler said.

In the control arm of the study, patients attended an educational session on nurse-led case management and were offered the services of a nurse case manager over the 6-month study period.

"At 6 months, the mean A$_{1c}$ of the intervention patients decreased from 8.02% to 7.73%, while the mean A$_{1c}$ of the control arm participants increased from 7.93% to 8.22%," Dr. Heisler reported. "We were especially concerned about patients at high risk, so we did a stratified analysis, looking specifically at the change in A$_{1c}$ at 6 months for those patients with a baseline A$_{1c}$ higher than 9.0% and the differences remained significant."

Specifically, in the latter analysis, the mean HbA$_{1c}$ decrease for intervention arm participants with a baseline HbA$_{1c}$ higher than 9.0% was 0.88%, compared with a decrease of 0.07% in the control group, according to Dr. Heisler.

Regarding secondary outcomes, "we did see a 3.4% reduction in blood pressure results for the intervention group, but the differences compared with the control group were not statistically significant," Dr. Heisler said.

"Also, there were eight new insulin starts in the intervention group and only one in the control group, and the diabetes social support outcomes were significantly higher for intervention group as well," she said.

There were no between-group differences in levels of diabetes-related emotional distress, she said.

An evaluation of intervention participation showed that more than 90% of the peer partners made computer-facilitated weekly calls. "The actual number of calls could be higher, because some of the patients used their own phones for some or all of their calls," Dr. Heisler explained.

Also, 40% of the intervention patients attended all three of the optional group sessions, while 25% attended two sessions and 12% went to one session, she said.

Although the study was limited by the inclusion of only male veterans and by its short time frame, "it's clear that the reciprocal care model can be an effective approach for helping diabetic patients help themselves," Dr. Heisler said.

From an efficiency standpoint, "this model is far less time and resource intensive than other tested programs that have led to similar improvements in A$_{1c}$," she said.

"Models like this increase the quality and intensity of assistance that we can provide to our diabetic patients and should be further refined and considered for clinical use," Dr. Heisler said. ■

VITALS

Major Finding: At 6 months, the mean hemoglobin A$_{1c}$ of patients in the intervention group decreased from 8.02% to 7.73%, while the mean hemoglobin A$_{1c}$ of the controls increased from 7.93% to 8.22%.

Data Source: Randomized, controlled trial comparing a peer-support intervention with conventional nurse-led case management in 244 men who had poor glycemic control and were treated in a Veterans Affairs program.

Disclosures: Dr. Heisler had no financial conflicts to disclose.

Vascular Disease Doubles Risk of MRSA Treatment Failure

BY BRUCE JANCIN

FROM THE ANNUAL EUROPEAN CONGRESS OF CLINICAL MICROBIOLOGY AND INFECTIOUS DISEASES

VIENNA — Predictors of clinical failure in the treatment of complicated skin and skin structure infections in diabetic patients caused by methicillin-resistant *Staphylococcus aureus* include involvement of a body area other than the lower extremities, according to an analysis that combines the results of three large, prospective, randomized, phase III/IV clinical trials.

The other independent predictors of treatment failure in diabetic patients were comorbid peripheral vascular disease and polymicrobial pathogens, Dr. Benjamin A. Lipsky reported at the congress.

The presence of these risk factors, each of which roughly doubled the likelihood of treatment failure, should serve to alert physicians to an elevated risk of poor outcome, added Dr. Lipsky of the Veterans Affairs Puget Sound Health Care System and the University of Washington, Seattle.

Dr. Lipsky reported on 845 patients with complicated skin and skin structure infections caused by MRSA who participated in three open-label clinical trials involving randomization to treatment with linezolid or

Several risk factors predict that treatment for MRSA, shown here as a cutaneous abscess, will fail in diabetes patients.

vancomycin. A total of 34% of participants were diabetic.

This is believed to be the largest-ever analysis of predictors of clinical failure in patients who have skin infections caused by MRSA, according to the internist.

Clinical failure was defined as persistence or progression of clinical signs and symptoms of active infection at the study's end, which came variously 6-28 days after the last dose of study medication.

The presence of comorbid peripheral vascular disease was associated with a 2.3-fold increased risk of clinical treatment failure in the diabetic patients.

It is likely that the vascular disease interferes with delivery of antimicrobial agents to the site of infection, Dr. Lipsky observed.

In nondiabetic patients, two independent predictors of clinical treatment failure were identified: vancomycin therapy and the presence of polymicrobial pathogens. Each was associated with a 2.2-fold increased risk of treatment failure.

Numerous other variables were scrutinized as potential predictors of clinical treatment failure but failed to achieve significance. Among them were the type of infection—abscess, ulcer, cellulitis, or surgical wound—as well as age, gender, body weight, renal impairment, and cardiac comorbidity.

This study was sponsored by Pfizer. Dr. Lipsky serves as a consultant to the company. ■