Diabetes Raises Mortality in Coronary Syndromes

BY KATE JOHNSON
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Patients with diabetes have increased 30-day and 1-year mortality following acute coronary syndromes, compared with patients without diabetes, according to an analysis of more than 60,000 patients.

At 30 days after acute coronary syndrome (ACS), diabetes was a significant independent factor associated with all-cause mortality for patients presenting with ST-segment elevation myocardial infarction (STEMI) and for those with unstable angina/non-STEMI (UA/NSTEMI), with adjusted odds ratios of 1.40 and 1.78, respectively. At 12 months, diabetes remained a significant independent predictor of mortality for both patient groups, with adjusted hazard ratios of 1.22 and 1.65, respectively.

The data were adjusted for baseline characteristics, as well as features and management of the index ACS event.

Also at 12 months, "patients with diabetes and presenting with UA/NSTEMI had a mortality that approached patients without diabetes and presenting with STEMI (7.2% vs. 8.1%)," the researchers reported (JAMA 2007;298:765-75).

The analysis pooled 62,036 ACS patients from 11 independent Thrombolysis in Myocardial Infarction (TIMI) Study Group clinical trials. A total of 46,577 patients presented with STEMI, and the remaining 15,459 patients presented with UA/NSTEMI. A total of 10,613 patients had diabetes by self-report, wrote lead author Dr. Sean M. Donahoe of Cornell University Medical Center, New York, and colleagues.

"The burden of cardiovascular risk inherent among the patients presenting with UA/NSTEMI marked the index ACS presentation as a sentinel event in a chronic, progressive course that was more accelerated among patients with diabetes," they wrote. "The UA/NSTEMI population is enriched with this high-risk diabetic population."

Several limitations to the study were noted by the authors, including the possibility of intertrial variability in ACS management, and the self-reporting of diabetes status.

Noting "the increasing burden of cardiovascular disease attributable to diabetes worldwide," the authors pointed to "the need for a major research effort to identify aggressive new strategies to manage unstable ischemic heart disease among this high-risk population." They recommended that "long-term, targeted, intensive use of proven therapies for the traditional coronary risk factors must be widely promoted for patients with diabetes, particularly following ACS," suggesting that, "more stringent targets for patients with diabetes may be better all around.

"Collaboration between medical societies, national health care organizations, and industry will be vital to halt the epidemic of diabetes-related cardiovascular disease," they concluded. ■

Survey Findings Highlight Challenges for Diabetes Educators

BY MIRIAM E. TUCKER
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ST. LOUIS — The latest results of a large national survey of diabetes educators identifies areas in which the profession might be able to optimize its delivery of patient care while improving its financial viability at the same time.

Launched in 2005, the aim of the American Association of Diabetes Educators' (AADE) National Practice Survey is to lay the groundwork for creating evidence-based practices, Mary M. Austin and Malinda Peeples explained in a joint presentation at the association's annual meeting.

The challenge is to define core elements of successful diabetes education programs and to standardize those in a way that will still allow providers to use their creativity and customize their programs, said Ms. Peeples, a certified diabetes educator and immediate past president of the AADE.

Earlier National Practice Survey (NPS) results have been published (Diabetes Educ. 2007;33:424-33), but the 2007 data, which are currently being analyzed by a health economist, are significant because they are the first to illustrate trends, noted Ms. Austin, who also is a certified diabetes educator and past president of the AADE.

The survey consisted of 33 questions on program structure, 7 questions on process (interventions, program services, and activity), and 8 questions pertaining to outcomes. A diabetes education program was defined as "any structured, organized delivery of diabetes education occurring in any practice setting."

In 2007, the survey was mailed to 10,865 AADE members. The 30% return rate was a significant increase from the 21% of 9,322 members who responded in 2005. Educators from every state in the union responded, with the greatest numbers from Texas, California, New York, Illinois, Ohio, and Florida. Ms. Peeples acknowledged that a limitation of the survey was that it was sent only to AADE members.

Most (92%) of the 2007 respondents reported they are currently "providing, supervising, or coordinating" diabetes patient education. A total of 73% described their role as "diabetes educator," and 28% described it as "diabetes program manager/director/coordinator."

From 2005 to 2007, there was an increase in the number of programs serving multiple locations (38% to 43%, respectively), with a corresponding decrease in the proportion serving a single location (62% to 57%). In 2007, 26% of the programs were serving 2 locations, and an almost equal proportion (24%) were serving more than 10 locations. These findings are not surprising because there have been reimbursement initiatives that encourage programs to serve multiple sites, Ms. Peeples said.

Also not surprising was that hospital outpatient settings were the most common venues for delivery of diabetes education (33%), followed by hospital inpatient settings (15%), and physician's offices (12%). But beyond those, there was a range of venues, including health system ambulatory clinics (5%), community education centers (4%), offices run by self-employed/independent educators (3%), and work site health clinics (2%). At least some respondents worked in each of the 17 types of settings listed in the survey, and 9% listed their setting as "other."

Only about 10% of the 484 program managers reported that their programs were operating at a profit, which was down from 14% in 2005.

Equally diverse was the list of disciplines from which diabetes educators emerge. Registered nurses topped the list at 51%, a significant increase from 45% in 2005. Registered dieticians were second, at 33%, also significantly up from 30% in 2005. Pharmacists dropped a bit, from 4% in 2005 to 3% in 2007. Those numbers closely reflect the entire AADE membership, Ms. Peeples said.

But also on the list in small proportions were professionals such as exercise physiologists, social workers, psychologists, and physicians (primary care and endocrinologists). A majority (79%) had earned a CDE credential, whereas only a small percentage (3%) had a board certification in advanced diabetes management (BC-ADM). Sixty-two percent worked full-time (a slight drop from the 66% in 2005) and 37% part-time (up from 34%).

The programs were divided almost equally among urban, suburban, and rural settings. "This is important when you hear about how rural areas are underserved. … We're already there. We just need to understand better how we can maximize the efforts of educators in some of those areas," Ms. Peeples said.

Of concern was the fact that most of the programs reported just 4-20 patient visits a week. "We need to get more data on staff/patient ratios. Some educators may be seeing as few as four patients a week. If that's the case, then there's a real challenge to financial viability," she remarked.

The results highlighted an area for improvement in the proportion of visits for newly diagnosed patients, which remained at about 45% throughout the 3 years since the last survey.

Because only half of all patients with diabetes in the United States are currently meeting recommended diabetes management goals, Ms. Peebles noted, "Do educators not have an opportunity to really begin to impact and improve diabetes care by seeing patients on an ongoing basis, not just when they're newly diagnosed? There may be limits in terms of reimbursement, but these data allow us to talk about these issues." Results also showed that payment sources for diabetes education included 29% from Medicare, 18% from managed care (HMO, PPO, or IPA), 16% from private (indemnity) insurance, and 9% from Medicaid. Of great concern was the finding that only about 10% of the 484 program managers reported that their programs were operating at a profit, which was down from 14% in 2005. At the same time, 44% of programs were operating at a loss, which is not much different from the 42% that were in 2005. Also worrisome was that 15% of program managers in 2007 (as opposed to 16% in 2005) said they didn't know whether their programs were making a profit, operating at cost, or losing money. "To us, that's pretty alarming," Ms. Peeples remarked.

The survey also attempted to correlate profitability with the number of patient visits. The data were not easy to interpret. In general it seemed that the small proportion of programs (just 0.3%, or 17) that had more than 5,000 patient visits a year were the most likely to be making a profit, but even then only 18% were doing so. Of programs with 2,001-5,000 patient visits a year, 10% were making a profit; 48% were operating at a loss, Ms. Austin reported.

"We're trying to [determine] whether it's size or number of visits that makes a difference in terms of profitability. Right now we're having a difficult time figuring it all out, but it looks like nobody is really operating at full profit with no loss. Everyone's operating at some loss, but once you get over 5,000 [patients a year], you're losing less than everyone else."

Another worrisome trend elicited from this year's survey was a slight downturn in the amount of clinical data collected and reported since 2005, with 12% of programs not collecting any outcome measures. "It wasn't significant, but it's something we need to keep an eye on. We don't know … whether it's a staffing issue, time, or something else," Ms. Austin said.

A question added for the first time in 2007 concerned use of the chronic care model, which has been adopted by the AADE. In response to the question, "Are you interacting with providers who are using a chronic care model?" 37% said yes, 32% said no, and 31% answered I don't know. However, when asked if they were familiar with the McColl Institute chronic care model that has been endorsed by AADE, only 23% said yes. More information is available at www.improvingchroniccare.com. ■