



Clinical Digest

ONLINE EDITION

CARDIOVASCULAR DISEASE

Effect of High Left Ventricular Ejection Fraction in Older Women

Elderly women with acute coronary syndrome (ACS) and low left ventricular ejection fraction (LVEF) have poor prognoses. Now, researchers suggest that a high LVEF also may increase the risk of death and cardiac arrest or ventricular fibrillation in elderly women with ACS.

Between April 1, 1999, and December 31, 2005, 51,140 patients with ACS were enrolled in the Global Registry of Acute Coronary Events (GRACE) study. Criteria for inclusion in the registry included age ≥ 18 years, alive at the time of hospital presentation, and admission for a presumptive diagnosis of ACS. Of this cohort, the researchers identified 5,127 women aged > 65 years who had LVEF assessment at the time of index ACS event. Patients were divided into 3 groups: group I consisted of 2,987 patients with low LVEF ($< 55\%$), group II had 1,483 patients with normal LVEF (55% to 65%), and group III had 657 patients with high LVEF ($> 65\%$). All patients were followed up at discharge and 6 months later.

Death rates were highest in the low-LVEF group (12%), compared with rates in group II (1.8%) and group III (2.8%). Although low LVEF was associated with the highest risk, patients having a high LVEF experienced a twofold increased risk of death and cardiac arrest or ventricular fibrillation, compared with patients who had a normal LVEF. The researchers say this is a “newly documented finding

that needs further exploration.” The difference between the groups persisted at 6 months.

Currently, intracardiac defibrillators are recommended in patients with left ventricular dysfunction following a myocardial infarction and an LVEF $< 35\%$. However, recent studies suggest that a severely depressed left ventricular function typically is not present in most patients who develop sudden death. Therefore, researchers hypothesize that a majority of sudden cardiac death victims had a normal or high LVEF and would not have qualified for an intracardiac defibrillator.

Source: *Am Heart J.* 2010;160(5):849–854.
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DIABETES

Peer Support Leads to Better Diabetes Self-Care

According to a 6-month study conducted by researchers from University of Michigan and Ann Arbor VA Health Care System, both in Ann Arbor, Michigan, peer-based support produced better outcomes in regard to diabetic patients' HbA_{1c} levels than traditional nurse care management (NCM). The researchers' hypothesis was that simultaneously providing and receiving help in group sessions and one-on-one telephone conversations would bolster patients' motivation and ability to take care of their diabetes.

From April 2007 to 2009, researchers searched electronic medical records to identify veterans with diabetes (most recent recorded HbA_{1c} $> 7.5\%$ within the past 6

months) and poor glycemic control who were receiving care at 2 Midwestern VA facilities. Of 244 enrolled patients, 126 were randomly assigned to the reciprocal peer-support (RPS) group and 119 were assigned to the NCM group.

In the RPS group, age-matched veterans were paired up (neither man in the pair was designated as a “helper” or “helpee”). After brief training in communication skills, they were encouraged to call each other at least once a week using an interactive, voice-response-facilitated platform that recorded call initiation, frequency, and duration. The patients were given a DVD that demonstrated peer communication skills and a diabetes self-management workbook to help guide the telephone calls. The system generated automated reminders every 7 days if no peer calls were recorded. The system also allowed patients to leave voice messages for research staff or care managers.

The patients also were offered 3 optional 1.5-hour group sessions (facilitated by a care manager and research associate, but, otherwise, “completely patient-driven”) at months 1, 3, and 6, in which, they shared concerns, questions, strategies, and progress on their action plans.

The NCM patients attended a 1.5-hour session led by a care manager to review their baseline and follow-up laboratory results, ask questions, and receive information on VA care management services. They were encouraged to schedule follow-up telephone calls or face-to-face visits with the care manager. They also were given diabetes self-management educational materials.

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Overall, 216 participants completed the HbA_{1c} assessments and 231 patients completed the survey assessments at 6 months. Among the 90% of peer pairs who had at least 1 conversation, 20 pairs reported that they talked without using the interactive telephone system. Sixty-one percent in the RPS group attended the 1-month group session, 59% attended the 3-month session, and 63% attended the 6-month session. Nearly half of the men attended all 3 sessions. At 6 months, patients in the RPS group who had attended all the group sessions had had 4.5 more

hours of face-to-face meetings than any patient in the NCM group, in addition to the peer telephone calls. The RPS program was “far less time-intensive” than other diabetes self-management programs that achieved similar or smaller improvements in glycemic control, the researchers say.

HbA_{1c} levels in the RPS group improved from a baseline of 8.02% to 7.73%. Their HbA_{1c} levels were 0.58% lower on average than those in the NCM group. In fact, mean HbA_{1c} levels increased for patients in the NCM group—from 7.93% at baseline to 8.22% at follow-up.

Groups did not differ in blood pressure, self-reported medication adherence, or diabetes-specific distress. However, RPS-group patients were more likely to report greater increases in diabetes-specific social support. Eight RPS patients started insulin therapy, vs 1 patient in the NCM group. The researchers say this finding suggests that patients' concerns about insulin may be best addressed by another person also coping with insulin management. ●

Source: *Ann Intern Med.* 2010;153(8):507-515.