## Anemia at MI Admission Linked to Poor Survival

BY BETSY BATES

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SAN DIEGO — Anemia is an independent risk factor for long-term mortality after myocardial infarction in both diabetic and nondiabetic patients, a large Canadian study has found.

Researchers at Queen Elizabeth II Health Sciences Centre, Dalhousie University, in Halifax, N.S., studied outcomes in 7,466 patients who were admitted with acute MI.

Of these, 1,431 had anemia but no diabetes, 1,646 had diabetes but no anemia, and 964 had diabetes and anemia.

The remaining 3,425 patients had neither diabetes nor anemia.

Patients fared worse if they had both anemia and diabetes, with greater than 25% mortality at 1 month post admission, and greater than 35% mortality within 30 months, S. Ali Imran, M.B., of the divi-

## High Incidence of Unrecognized MI In Older Patients

STOCKHOLM — A high proportion of myocardial infarctions occuring in patients after the age of 55 years go clinically unrecognized, Anneke de Torbal, M.D., reported at the annual congress of the European Society of Cardiology.

This observation from the prospective, population-based Rotterdam Study raises the possibility that periodic screening

The researchers reported that in women, 54% of MIs were unrecognized, whereas in men, the proportion was 33%.

ECGs ought to be routine in older adults. It would result in identification of patients with previously unrecognized MI so they could have the benefit of placement on an intensive secondary pre-

vention regimen, said Dr. de Torbal of Erasmus Medical Center, Rotterdam, the Netherlands.

The study includes 4,187 men and women above age 55, free of evidence of prevalent MI by 12-lead ECG at baseline, and who had a follow-up ECG a mean of 6.4 years later. During the follow-up period, 141 participants experienced a clinically recognized MI. This translated into an incidence of 5.0 cases/1,000 patient-years. The rate in men—8.4 cases/1,000 patientyears—was significantly greater than the 3.1/1,000 patient-years in women. The incidence of clinically unrecognized MI picked up only by the screening ECGs performed as part of the Rotterdam Study protocol was 4.2 cases/1,000 patient-years in men and 3.6/1,000 patient-years in women.

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—Bruce Jancin

sion of endocrinology at the university, reported in a poster displayed at the annual meeting of the Endocrine Society.

Diabetes was a strong independent risk factor for both 30-day and long-term (31 days to 30 months) mortality.

Anemia, defined as a hemoglobin level of less than 120 g/L in females and 140 g/L in males, did not independently predict short-term mortality, but that may have been because mild degrees of anemia were included.

However, "any degree of anemia has an adverse effect on long-term mortality post myocardial infarction," with each lower quintile of hemoglobin at the time of an MI admission associated with an increased risk of death, noted Dr. Imran.

Long-term mortality in patients with anemia approached 30%, compared with about 13% in patients who did not have anemia or diabetes at admission. The authors pointed out that patients with anemia tended to be older and male and had worse

renal function than did other MI patients.

"Since anemia is a marker of an underlying disorder, the etiology of the anemia may explain an increased risk of mortality," they wrote.

The primary cause of death for all patients, including the group with anemia, was cardiovascular.

"Further research examining the potential of correcting anemia is needed in the hopes of reducing long-term mortality," the researchers concluded.

