centage was calculated; 34.9% of the prevalence of low systolic pressure and 17.9% of the prevalence of low diastolic pressure were associated with cognitive impairment.

Based on study findings, the authors conclude that low blood pressure in very old people may be associated with poor functional status, cardiac insufficiency, and, more importantly, cognitive impairment. It would be expected that low blood pressure is associated with increased mortality in this age group.

Guo Z, Viitanen M, Winblad B: Clinical correlates of low blood pressure in very old people: The importance of cognitive impairment. *J Am Geriatr Soc* 1997;45:701-705.

Intensive insulin treatment: Prognosis after acute MI in patients with diabetes mellitus

A total of 620 patients with diabetes mellitus and acute myocardial infarction were randomly assigned to receive standard treatment plus insulin-glucose infusion for at least 24 hours followed by multidose insulin treatment (study group) or to receive standard treatment only (control group). The study group comprised 306 patients; the control group, 314 patients.

The main outcome measure was long-term all-cause mortality. The mean follow-up was 3.4 years (range, 1.6 to 5.6 years). In the treatment group, 102 (33%) patients died, compared with 138 (44%) in the control group (relative risk, 0.72; 95% confidence interval, 0.55 to 0.92; $P=.011$). The effect was most pronounced among the predefined group that included 272 patients without previous insulin treatment and at a low cardiovascular risk (relative risk, 0.49; 95% confidence interval, 0.30 to 0.80; $P=.004$).

Study findings indicate that treatment with insulin-glucose infusion followed by intensive subcutaneous insulin treatment in diabetic patients with acute myocardial infarction improves long-term survival by nearly a third. The effect seen at 1 year appears to last for at least 3.5 years, with an absolute reduction in mortality of 11%. Translated: one life was saved for nine treated patients.

Malmberg K for the DIGAMI (Diabetes Mellitus Insulin Glucose Infusion in Acute Myocardial Infarction) Study Group: Prospective randomised study of intensive insulin treatment on long term survival after acute myocardial infarction in patients with diabetes mellitus. *BMJ* 1997;314:1512-1515.

Impact of asthma on use, cost of healthcare

A population-based historical cohort study was conducted to measure the impact of asthma on the use and cost of healthcare by children in managed care organizations. The study population comprised 71,818 children, aged 1 to 17 years, who were enrolled in a medium-sized staff model health maintenance organization and used services during 1992.

Automated encounter data were used to identify children with one or more asthma diagnoses during 1992. Nonurgent outpatient visits, pharmacy-filled prescriptions, urgent care visits, and hospital days as well as associated costs, were measured. All services were categorized as asthma care or nonasthma care. Marginal cost for asthma (difference in total cost between children with asthma and other children using services, adjusted for covariates) was computed by multivariate regression analysis.

The treated prevalence of asthma was 4.9%. Children with asthma incurred 88% more costs ($1060.32 vs $563.81 per year), made 65% more nonurgent outpatient visits (5.75 vs 3.48 per year), and had 2.77 as many prescriptions (11.59 vs 4.19 per year), and had twice as many inpatient days (0.23 d/y vs 0.11 d/y) compared with the general population of children using services. Asthma care represented 37% of all healthcare received by children with asthma, while the remaining 63% were for nonasthma services. Almost two thirds of asthma-related costs were attributable to nonurgent patient care and prescriptions; only one third was attributable to urgent care and hospitalizations. Controlling for age, sex, and comorbidities, the marginal cost of asthma was $615.17/y (95% confidence interval, $502.73, $727.61), which includes asthma as well as nonasthma services.

These findings show that children with asthma use significantly more health services (and incur significantly more costs) than other children using services, attributable largely to care of asthma. The majority of all healthcare costs for children with asthma were for nonasthma services. Urgent care visits and hospitalizations are less important components of asthma costs in this managed care organization than has been found in other national studies.

Lozano P, Fishman P, VonKorff M, Hecht J: Health care utilization and cost among children with asthma who were enrolled in a health maintenance organization. *Pediatrics* 1997;99:757-764.

Long-term treatment with salmeterol and asthma control

A double-blind, randomized crossover study was conducted to determine the effect of adding the β_2-agonist salmeterol, 50 μg twice daily for 6 months, to current treatment in subjects with asthma who control their corticosteroid dose according to a management plan.

Subjects were 101 patients with mild or moderate asthma who take at least 200 μg of beclomethasone dipropionate or budesonide twice daily. All subjects had stable asthma at entry, with no exacerbations or respiratory tract infection in the previous 6 weeks. The subjects inhaled placebo and salmeterol from identical dry powder inhalers for 6 months, followed by a 1-month washout. Subjects adjusted inhaled steroid dose according to guidelines. A computer program randomized the order of treatment.

Data were available for 87 subjects. When compared with placebo, salmeterol treatment was associated with a 17% reduction in inhaled steroid use (95% confidence interval. 0.12 to 0.22). The number of subjects who had an exacerbation or use of oral steroid in each group was not statistically significant (25% in the group receiving the placebo