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### Improving Your Health at 75 – Part II

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Your Life Your Health

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This is the second part of our review of The American Heart Association's Scientific Statement from the Council on Clinical Cardiology Subcommittee on Exercise, Cardiac Rehabilitation and Prevention published in 2002. Entitled, "Secondary Prevention of Coronary Heart Disease in the Elderly (With Emphasis on Patients  $\geq 75$  Years of Age)," the statement includes secondary prevention efforts which have benefit for those in their eighth decade of life and who already have heart disease.

#### Smoking Cessation

Continued smoking after acute cardiac events such as an MI or CABG surgery is associated with significant damage to the cardiovascular system. These effects include an increase in:

- blood pressure
- heart rate
- peripheral vascular resistance, especially in older individuals
- catecholamines
- impairment in flow-mediated dilation of coronary arteries
- susceptibility to clotting
- metabolic changes, including a reduction in high-density lipoprotein (HDL)-cholesterol

The cumulative effects often result in angina pectoris, heart attack (MI), stroke, and death. For individuals with cardiovascular disease, the benefits of quitting smoking are numerous. **Moreover, these benefits begin within the first year of quitting.** Cessation reduces overall mortality by 25% to 50% in those who have suffered an MI, and **at least 50% of this decline is seen in the first year.**

Data from the Coronary Artery Surgery Study (CASS) indicate that smoking cessation reduces both morbidity and mortality rates in those over the age of 70 who have undergone CABG surgery. The reduction in relative risk of MI and death in those over age 70 is similar to that seen in younger individuals. Thus, advanced age does not decrease the benefits of quitting.

Smoking cessation rates in middle-aged and older individuals with cardiovascular disease range from 20% to 70% at the end of one year. In response to high rates of relapse, the US Public Health Service Guideline, *Treating Tobacco Use and Dependence*, has classified tobacco dependence as a chronic condition requiring repeated intervention. Interventions noted to be effective in younger individuals have also proved effective in elderly cardiovascular patients. These interventions include:

- strong physician advice
- behavioral counseling
- buddy support programs
- self-help materials
- telephone counseling
- drug therapies.

Programs that combine:

- strong physician advice,
- behavioral counseling at the bedside,
- nicotine replacement therapy, and
- telephone follow-up by nurse case managers after hospital discharge

have been shown to be highly effective in helping cardiovascular patients to quit smoking.

### ***Management of smoking cessation***

Both nicotine replacement therapy and other pharmacological agents are safe in patients with cardiovascular disease, including the elderly. Cardiac rehabilitation programs offer a unique opportunity to provide smoking cessation counseling for older cardiovascular patients. These programs enable healthcare professionals to provide the behavioral and pharmacological interventions that are needed to help smokers succeed in quitting.

### **Hypertension**

Hypertension is common among elderly patients of both sexes and is a major risk factor for coronary heart disease, cerebrovascular disease, and peripheral arterial disease. It is the most common cause which contributes to heart failure and chronic renal failure. According to Joint National Commission (JNC) VI criteria, more than 50% of people over the age of 60 years, especially women, are hypertensive. Treatment and control of hypertension are suboptimal in the elderly, inasmuch as nearly two thirds of those 75 years of age and older have uncontrolled hypertension, defined as systolic blood pressure  $\geq 140$  mm Hg and/or diastolic blood pressure  $\geq 90$  mm Hg.

Isolated systolic hypertension (systolic blood pressure  $\geq 140$  mm Hg with diastolic blood pressure  $< 90$  mm Hg) is the most common type of hypertension in the elderly, and a wide pulse pressure ( $\geq 50$  mm Hg) in this age group may be a better marker for cerebrovascular disease and heart failure than mean or diastolic blood pressure.

The benefits of antihypertensive therapy are particularly high in patients 60 to 80 years of age. In the older population, treatment prevents strokes and heart failure more than coronary events, but overall mortality also is reduced. The target for lowering blood pressure should be the same as in younger patients,  $< 140/90$  mm Hg, with a lower target

(<130/80 mm Hg) in patients with heart failure, renal insufficiency, and type 2 diabetes mellitus.

Hypertension treatment studies have not included a sufficient number of older patients to draw conclusions for patients aged 80 years. Results from both the recent Systolic Hypertension Europe (SYST-EUR) study and controlled antihypertensive drug trials support benefits of therapy. Both studies demonstrated the benefits of active treatment in patients 80 years of age, including a significant reduction in the risk for stroke, major cardiovascular events, and heart failure. However, there was no reduction in cardiovascular death or total mortality. A large international trial evaluating the effect of antihypertensive therapy on incidence of stroke and cognitive function (HYPertension in the Very Elderly Trial [HYVET]) in patients 80 years of age, may provide definitive information regarding the risk and benefits in this population.

### ***Management***

Treatment of hypertension in the elderly should follow the JNC VI guidelines. **Weight reduction, decreased sodium and alcohol intake, and exercise are more effective in older populations when compared with the younger age group.** Selection of drug therapy should be based on the:

- severity of hypertension,
- presence of risk factors, and
- target organ damage.

Selection of a specific drug therapy also depends on the presence of other conditions, particularly heart failure (HF) and type 2 diabetes mellitus, for which ACE inhibitors are particularly appropriate.

Control of hypertension and, specifically, isolated systolic hypertension has been clearly associated with reduction in morbidity and mortality due to stroke, CHD, HF, and chronic renal (kidney) failure.

### **Abnormal Lipid (cholesterol and triglycerides) Levels**

Multiple studies have demonstrated the value of lipid-lowering therapy for both the primary (before heart disease occurs) and secondary prevention (after heart disease occurs) of heart disease. Because these studies have not been specifically oriented toward the elderly, the value of such therapy in older individuals has been questioned. However, substantial data within existing studies are available, and in addition, there are now several studies in progress that are specifically oriented toward this patient group.

The Scandinavian Simvastatin Survival Study (4S) demonstrated important reductions in coronary event-related morbidity and mortality in patients with known CHD. An analysis from this study demonstrated that cholesterol lowering with simvastatin (Zocor) produced similar reductions in relative risk for major coronary events in patients 65

years of age compared with younger patients. Thus, heart disease (CHD) death was reduced 42% in subjects <65 years of age and 43% in those ≥65 years of age. Likewise, hospitalization for CHD was reduced by 31.8% in those under age 65, and by 33.1% in those ≥65 years of age. Because mortality rates increase substantially with age, the absolute risk reduction for both all-cause and CHD mortality in simvastatin-treated subjects was approximately twice as great in the older patients.

Each of these studies described the greater absolute risk to which elderly patients are subject and thus demonstrated that a relative risk reduction similar to that seen in younger individuals produces a greater absolute benefit in the older group.

### ***Management***

In conclusion, data suggest that older patients with CHD will benefit from having abnormal lipid levels treated, and that the benefit they derive is likely to be even greater than that which is seen in younger patients. The National Cholesterol Education Program Adult Treatment Panel III guidelines should be followed, bringing low-density lipoprotein (LDL)-cholesterol levels down to <100 mg/dL and, if at all possible, increasing HDL-cholesterol levels to >40 mg/dL. Recommendations for appropriate levels of triglycerides in the elderly are not specifically addressed here because few data relative to this age group are available. However, the AHA/ACC guidelines for secondary prevention suggest that, in general, when triglyceride level is ≥200 mg/dL, then non-HDL-cholesterol (total cholesterol minus HDL-cholesterol) should be <130 mg/dL.

Next week in we will interrupt our series to have a special Father's Day article. Following that, we will continue with Part III where we will complete the presentation of the AHA Scientific Statement on the treatment of cardiovascular risk factors in the elderly. We will address obesity, exercise, diabetes and psychological and social issues related to stress. Remember, it is your life and it is your health.