SCIENCE-IN-BRIEF

TURNING SCIENCE INTO ACTION

Benefits of Achieving Optimal CVD Risk Factor Levels for Older Men

The following is a synopsis of "Benefits associated with achieving optimal risk factor levels for the primary prevention of cardiovascular disease in older men," published in the February 2012 issue of the *Journal of Clinical Lipidology*.

What is already known on this topic?

Most cases of cardiovascular disease (CVD) occur in individuals aged 65 years or older. Despite evidence that CVD prevention in elderly patients can be effective, many physicians are hesitant to treat risk factors in this population. One common misconception is that CVD prevention efforts in older patients may be fruitless because of competing risks from other causes of death, such as cancer. However, data show that 25% of individuals aged 65–75 years die of cardiovascular causes; after age 75, more than 40% die from CVD.

Persons aged 65 years or older are projected to account for more than 20% of the U.S. population by 2030. As this segment of the population ages, the need for CVD prevention in the elderly becomes increasingly important.

What is added by this document?

This study evaluated the relationship between CVD risk factor control and the risk of CVD events in an elderly population participating in the Physicians' Health Study-II. The authors analyzed data from 4,182 U.S. male physicians aged 65 years or older who did not have CVD or diabetes upon entering the study. This population was tracked for an average of 9.3 years to monitor the control of four modifiable CVD risk factors: smoking status, non-high-density lipoprotein cholesterol (non-HDL-C) levels, blood pressure levels, and aspirin use.

Results showed that elderly men who failed to control any of the four risk factors almost quadrupled their CVD risk compared to individuals who controlled all four risk factors. Control of each additional risk factor was associated with a significant reduction in CVD risk.

The study also examined the effects of specific CVD risk factors. Overall, smokers in the study population had a 46% risk of a CVD event, more than twice that of nonsmokers. Men who did not adhere to an aspirin regimen had a 16% greater risk for CVD compared to those that did take aspirin. Additionally, the study found that individuals who took medication to reduce non-HDL-C levels to less than 130 mg/dL were at considerably decreased CVD risk.

What are the implications for public health practice?

As the American population ages, the importance of emphasizing control of CVD risk factors in the elderly increases. Because the control of each risk factor provides an additional reduction in CVD risk, providers should take a comprehensive approach to CVD risk factor management, targeting control of all four modifiable risk factors in older patients, either through lifestyle modification or medication.

Additionally, few participants in the study population had received cholesterol-lowering drug therapy prior to the beginning of data tracking. This finding suggests that more aggressive risk factor control may be needed in middle age to significantly lower CVD risks.

What are the applications for these findings?

- The burden of CVD can be reduced in the elderly by treating high cholesterol (non-HDL-C) and blood pressure, encouraging an aspirin regimen, and urging smoking cessation.
- Addressing the cholesterol treatment gap, with or without control of other risk factors, could substantially reduce CVD risk in elderly men.
- Future cholesterol guidelines should identify dual goals of a low-density lipoprotein level of less than 100 mg/dL and non-HDL-C level of less than 130 mg/dL for men aged 65 years or older.

Resources

Centers for Disease Control and Prevention
Division for Heart Disease and Stroke Prevention
www.cdc.gov/dhdsp

Million Hearts™
About Heart Disease & Stroke
http://millionhearts.hhs.gov/about_hd.html

American Heart Association
www.heart.org

Citation

Robinson JG, Rahilly-Tierney C, Lawler E, Gaziano JM. Benefits associated with achieving optimal risk factor levels for the primary prevention of cardiovascular disease in older men. *J Clin Lipidol.* 2012;6(1):58–65

National Center for Chronic Disease Prevention and Health Promotion
Division for Heart Disease and Stroke Prevention

For more information please contact Centers for Disease Control and Prevention
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