

## Impact of Pharmacist Care in the Management of Cardiovascular Disease Risk Factors

The following is a synopsis of the article “Impact of Pharmacist Care in the Management of Cardiovascular Disease Risk Factors,” published in the September 12, 2011, issue of the *Archives of Internal Medicine*.



### What is already known on this topic?

Cardiovascular disease (CVD) is a leading cause of death and disability worldwide. Controlling CVD risk factors, such as blood pressure and cholesterol levels, can reduce population-wide morbidity and mortality rates. Increased use of community-based models may help counteract rising health care costs and assist patients in accessing providers. One of these models involves including pharmacists on the health care team to deliver services to patients. Because pharmacists have direct access to patients and extensive knowledge of drug therapies and interactions, they are well suited to assist patients with CVD management, especially medication use.

### What is added by this document?

This systematic review examined the impact of pharmacist care interventions on CVD risk factor management among outpatients. Results showed that of the 30 studies reviewed, 19 showed beneficial, statistically significant differences in participants' systolic and diastolic blood pressure levels between pharmacist intervention groups and control groups receiving usual care. Six of nine studies reporting total cholesterol levels and four of seven reporting LDL (“bad”) cholesterol levels showed a statistically significant benefit of receiving care from pharmacists. Lastly, two studies demonstrated the impact of pharmacist care on smoking cessation, showing a statistically significant reduction in smoking for patients that accessed the services of pharmacists compared to those who received usual care.

---

## What are the implications for public health practice?

The results highlight the benefits of pharmacist interventions and their impact on CVD risk factors. The most frequent interventions that incorporated pharmacists were:

- 1) Educational interventions for patients, such as education and counseling about medications, lifestyle, or compliance.
- 2) Feedback to physicians, such as medication-related problem identification and recommendations.
- 3) Medication management, including medication review and drug therapy monitoring.

These interventions are associated with increased control

of CVD risk factors, such as blood pressure, cholesterol, and smoking. As illustrated by the interventions, pharmacy practice is becoming more clinical and patient-centered, with the pharmacist as a key member of the health care team.

## What are the applications for these findings?

The expertise and accessibility of pharmacists can be beneficial for physicians and health care teams helping patients manage CVD risk factors. Studies have shown that including a pharmacist as a member of a health care team typically improves chronic disease management and outcomes in patients, including those with CVD risk factors.

---

## Resources

American Pharmacists Association  
[www.pharmacist.com](http://www.pharmacist.com)

American Pharmacists Association Foundation  
*Research Projects*  
[www.pharmacist.com/AM/Template.cfm?Section=Research\\_Projects](http://www.pharmacist.com/AM/Template.cfm?Section=Research_Projects)

National Community Pharmacists Association  
<http://ncpanet.org>

## Citation

Santschi V, Chiolero A, Burnand B, Colosimo AL, Paradis G. Impact of pharmacist care in the management of cardiovascular disease risk factors. *Arch Intern Med.* 2011;171(16):1441–53.

*The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.*

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**  
1600 Clifton Road NE, Atlanta, GA 30333  
**Telephone:** 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348  
**E-mail:** [cdcinfo@cdc.gov](mailto:cdcinfo@cdc.gov) Web: [www.cdc.gov](http://www.cdc.gov)