

Figure. Using Nontraditional Risk Factors in Coronary Heart Disease Risk Assessment: Clinical Summary of U.S. Preventive Services Task Force Recommendation.

Annals of Internal Medicine



USING NONTRADITIONAL RISK FACTORS IN CORONARY HEART DISEASE RISK ASSESSMENT CLINICAL SUMMARY OF U.S. PREVENTIVE SERVICES TASK FORCE RECOMMENDATION

Population	Asymptomatic men and women with no history of coronary heart disease (CHD), diabetes, or any CHD risk equivalent
I statement: Insufficient Evidence	No recommendation because of insufficient evidence
Risk Assessment	This recommendation applies to adult men and women classified at intermediate 10-year risk for CHD (10% to 20%) by traditional risk factors.
Importance	<p>Coronary heart disease (CHD) is the most common cause of death in adults in the United States. Treatment to prevent CHD events by modifying risk factors is currently based on the Framingham risk model. If the classification of individuals at intermediate risk could be improved by using additional risk factors, treatment to prevent CHD might be targeted more effectively.</p> <p>Risk factors not currently part of the Framingham model (nontraditional risk factors) include high-sensitivity C-reactive protein (hs-CRP), ankle-brachial index (ABI), leukocyte count, fasting blood glucose level, periodontal disease, carotid intima-media thickness, coronary artery calcification score on electron-beam computed tomography, homocysteine level, and lipoprotein(a) level.</p>
Rationale for No Recommendation	<p>There is insufficient evidence to determine the percentage of intermediate-risk individuals who would be reclassified by screening with nontraditional risk factors, other than hs-CRP and ABI. For individuals reclassified as high-risk on the basis of hs-CRP or ABI scores, data are not available to determine whether they benefit from additional treatments.</p> <p>Little evidence is available to determine the harms of using nontraditional risk factors in screening. Potential harms include lifelong use of medications without proven benefit and psychological and other harms from being misclassified in a higher risk category.</p>
Considerations for Practice	<p>Clinicians should continue to use the Framingham model to assess CHD risk and guide risk-based preventive therapy.</p> <p>Adding nontraditional risk factors to CHD assessment would require additional patient and clinical staff time and effort. Routinely screening with nontraditional risk factors could result in lost opportunities to provide other important health services of proven benefit.</p>
Relevant USPSTF Recommendations	USPSTF recommendations on risk assessment for CHD, the use of aspirin to prevent cardiovascular disease, and screening for high blood pressure can be accessed at www.preventiveservices.ahrq.gov .

For a summary of the evidence systematically reviewed in making these recommendations, the full recommendation statement, and supporting documents, please go to www.preventiveservices.ahrq.gov.

Table 1. What the USPSTF Grades Mean and Suggestions for Practice

Grade	Definition	Suggestions for Practice
A	The USPSTF recommends the service. There is high certainty that the net benefit is substantial.	Offer/provide this service.
B	The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.	Offer/provide this service.
C	The USPSTF recommends against routinely providing the service. There may be considerations that support providing the service in an individual patient. There is moderate or high certainty that the net benefit is small.	Offer/provide this service only if other considerations support offering or providing the service in an individual patient.
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.	Discourage the use of this service.
I statement	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.	Read the clinical considerations section of the USPSTF Recommendation Statement. If the service is offered, patients should understand the uncertainty about the balance of benefits and harms.

Table 2. USPSTF Levels of Certainty Regarding Net Benefit

Level of Certainty*	Description
High	The available evidence usually includes consistent results from well-designed, well-conducted studies in representative primary care populations. These studies assess the effects of the preventive service on health outcomes. This conclusion is therefore unlikely to be strongly affected by the results of future studies.
Moderate	The available evidence is sufficient to determine the effects of the preventive service on health outcomes, but confidence in the estimate is constrained by such factors as: the number, size, or quality of individual studies inconsistency of findings across individual studies limited generalizability of findings to routine primary care practice lack of coherence in the chain of evidence. As more information becomes available, the magnitude or direction of the observed effect could change, and this change may be large enough to alter the conclusion.
Low	The available evidence is insufficient to assess effects on health outcomes. Evidence is insufficient because of: the limited number or size of studies important flaws in study design or methods inconsistency of findings across individual studies gaps in the chain of evidence findings that are not generalizable to routine primary care practice a lack of information on important health outcomes. More information may allow an estimation of effects on health outcomes.

* The USPSTF defines *certainty* as “likelihood that the USPSTF assessment of the net benefit of a preventive service is correct.” The net benefit is defined as benefit minus harm of the preventive service as implemented in a general primary care population. The USPSTF assigns a certainty level based on the nature of the overall evidence available to assess the net benefit of a preventive service.