



Complete Summary

GUIDELINE TITLE

Prevention of secondary disease: lipid screening and cardiovascular risk.

BIBLIOGRAPHIC SOURCE(S)

New York State Department of Health. Prevention of secondary disease: lipid screening and cardiovascular risk. New York (NY): New York State Department of Health; 2007 Jun. 5 p. [8 references]

GUIDELINE STATUS

This is the current release of the guideline.

** REGULATORY ALERT **

FDA WARNING/REGULATORY ALERT

Note from the National Guideline Clearinghouse: This guideline references a drug(s) for which important revised regulatory information has been released.

- [March 2, 2005, Crestor \(rosuvastatin calcium\)](#): Revisions to the WARNINGS, DOSAGE AND ADMINISTRATION, CLINICAL PHARMACOLOGY, and PRECAUTIONS sections of the labeling.

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** REGULATORY ALERT **

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SCOPE

DISEASE/CONDITION(S)

Dyslipidemia and coronary heart disease (CHD) associated with human immunodeficiency-virus (HIV) infection and anti-retroviral therapy

GUIDELINE CATEGORY

Evaluation
Management
Prevention
Risk Assessment
Screening
Treatment

CLINICAL SPECIALTY

Allergy and Immunology
Cardiology
Family Practice
Infectious Diseases
Internal Medicine
Preventive Medicine

INTENDED USERS

Advanced Practice Nurses
Health Care Providers
Physician Assistants
Physicians
Public Health Departments

GUIDELINE OBJECTIVE(S)

To provide recommendations for prevention and management of dyslipidemia in human immunodeficiency virus (HIV)-infected patients

TARGET POPULATION

Human immunodeficiency virus (HIV)-infected patients

INTERVENTIONS AND PRACTICES CONSIDERED

Diagnosis/Assessment/Prevention

1. Assessment of cardiovascular risk factors
2. Obtaining a fasting lipid profile including total cholesterol, low-density lipoprotein cholesterol (LDL-C), high-density lipoprotein cholesterol (HDL-C), and triglycerides

Management/Treatment/Prevention

1. Lifestyle modification including smoking cessation, exercise, weight loss, substance use treatment if indicated

2. Pharmacologic treatment (e.g., statins)
3. Regular lipid profile monitoring in patients receiving antiretroviral therapy

MAJOR OUTCOMES CONSIDERED

Not stated

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Not stated

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Expert Consensus (Committee)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

AIDS Institute clinical guidelines are developed by distinguished committees of clinicians and others with extensive experience providing care to people with HIV

infection. Committees* meet regularly to assess current recommendations and to write and update guidelines in accordance with newly emerging clinical and research developments.

The Committees* rely on evidence to the extent possible in formulating recommendations. When data from randomized clinical trials are not available, Committees rely on developing guidelines based on consensus, balancing the use of new information with sound clinical judgment that results in recommendations that are in the best interest of patients.

* Current committees include:

- Medical Care Criteria Committee
- Committee for the Care of Children and Adolescents with HIV Infection
- Dental Standards of Care Committee
- Mental Health Committee
- Women's Health Committee
- Substance Use Committee
- Physician's Prevention Advisory Committee
- Pharmacy Committee

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

External Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

All guidelines developed by the Committee are externally peer reviewed by at least two experts in that particular area of patient care, which ensures depth and quality of the guidelines.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Lipid Screening and Cardiovascular Risk

Clinicians should assess human immunodeficiency virus (HIV)-infected patients for cardiovascular risk factors at least annually.

Table
Major Risk Factors Exclusive of Low-Density Lipoprotein (LDL) Cholesterol that Modify LDL Goals*

- Cigarette smoking
- Hypertension (blood pressure $\geq 140/90$ mm Hg or on antihypertensive medication)
- Low high-density lipoprotein (HDL) cholesterol (< 40 mg/dL)**
- Family history of premature coronary heart disease (CHD) (CHD in male first-degree relative < 55 years; CHD in female first-degree relative < 65 years)
- Age (men ≥ 45 years; women ≥ 55 years)

From the Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III). *Executive Summary of the Third Report of the National Cholesterol Education Program (NCEP)*. Available at: <http://www.nhlbi.nih.gov/guidelines/cholesterol>.

Refer also to the Framingham risk prediction calculator, available at: <http://hp2010.nhlbihin.net/atpiii/calculator.asp?usertype=prof>.

* Diabetes is regarded as a coronary heart disease risk equivalent.

**HDL cholesterol ≥ 60 mg/dL counts as a "negative" risk factor; its presence removes one risk factor from the total count.

Monitoring Lipid Profile

Clinicians should monitor patients receiving antiretroviral (ARV) therapy for dyslipidemia by obtaining a fasting lipid profile before initiation of ARV therapy, between 3 and 6 months after starting or changing ARV treatment, and at least annually thereafter. More frequent monitoring may be indicated by the presence of persistent lipid elevation, cardiovascular risk factors, or cardiovascular symptoms.

Management of Lipid Disorders

Lifestyle Modifications

Clinicians should recommend lifestyle modifications, such as smoking cessation, increased exercise, weight loss, nutrition therapy, and substance use treatment (refer to the table below for information about "LDL and non-HDL cholesterol goals and thresholds for therapeutic lifestyle changes and drug therapy in different risk categories").

Table
LDL and Non-HDL Cholesterol Goals and Thresholds for Therapeutic Lifestyle Changes and Drug Therapy in Different Risk Categories

Risk Category	LDL Goal (mg/dL)	LDL Level at Which to Initiate Lifestyle Changes (mg/dL)	LDL Level at Which to Consider Drug Therapy (mg/dL)	Non-HDL Goal (mg/dL)*
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**Table
LDL and Non-HDL Cholesterol Goals and Thresholds for Therapeutic Lifestyle Changes and Drug Therapy in Different Risk Categories**

Risk Category	LDL Goal (mg/dL)	LDL Level at Which to Initiate Lifestyle Changes (mg/dL)	LDL Level at Which to Consider Drug Therapy (mg/dL)	Non-HDL Goal (mg/dL)*
CHD or CHD risk equivalents: diabetes mellitus, atherosclerotic disease (CAD or stroke), or multiple risk factors (10-year risk >20%)	<100	>100	≥130 (100-129: drug optional)**	<130
2+ risk factors: HDL <40 mg/dL, strong family history, age >45 years, and smoking (10-year risk >20%)	<130	≥130	10-year risk 10%–20%: ≥130 10-year risk <10%: ≥160	<160
0-1 risk factor***	<160	≥160	≥190 (160-189: LDL-lowering drug optional)	<190

Modified from the Executive Summary of the Third Report of the National Cholesterol Education Program (NCEP) Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III). Available at: <http://www.nhlbi.nih.gov/guidelines/cholesterol>.

LDL, low-density lipoprotein; CHD, coronary heart disease; CAD, coronary artery disease; HDL, high-density lipoprotein.

* Non-HDL cholesterol = (total cholesterol – HDL). When LDL cannot be measured because the triglyceride level is >200 mg/dL, non-HDL cholesterol may be used as a secondary goal. The non-HDL cholesterol goal is 30 mg/dL higher than the LDL cholesterol goal.

** Some authorities recommend use of LDL-lowering drugs in this category if an LDL cholesterol level of <100 mg/dL cannot be achieved by therapeutic lifestyle changes (dietary and exercise intervention). Others prefer use of drugs that primarily modify triglycerides and HDL (e.g., nicotine acid or fibrate). Clinical judgment also may suggest deferring drug therapy in this subcategory.

***Almost all people with 0 or 1 risk factors have a 10-year risk <10%; thus, 10-year risk assessment in people with 0 or 1 risk factors is not necessary.

Pharmacologic Treatment of Dyslipidemia

Pharmacologic treatment of dyslipidemia should be guided by currently available clinical guidelines.

When a statin is indicated, clinicians should avoid using simvastatin and lovastatin in patients who are concurrently receiving protease inhibitors (PIs).

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is not specifically stated for each recommendation.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Prevention of dyslipidemia and coronary heart disease in human immunodeficiency virus (HIV)-infected patients

POTENTIAL HARMS

Not stated

CONTRAINDICATIONS

CONTRAINDICATIONS

Lovastatin and simvastatin are contraindicated in patients receiving protease inhibitors (PIs)

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

The AIDS Institute's Office of the Medical Director directly oversees the development, publication, dissemination and implementation of clinical practice guidelines, in collaboration with The Johns Hopkins University, Division of Infectious Diseases. These guidelines address the medical management of adults, adolescents and children with HIV infection; primary and secondary prevention in medical settings; and include informational brochures for care providers and the public.

Guidelines Dissemination

Guidelines are disseminated to clinicians, support service providers and consumers through mass mailings and numerous AIDS Institute-sponsored educational programs. Distribution methods include the HIV Clinical Resource website, the Clinical Education Initiative, the AIDS Educational Training Centers (AETC) and the HIV/AIDS Materials Initiative. Printed copies of clinical guidelines are available for order from the NYSDOH Distribution Center for providers who lack internet access.

Guidelines Implementation

The HIV Clinical Guidelines Program works with other programs in the AIDS Institute to promote adoption of guidelines. Clinicians, for example, are targeted through the Clinical Education Initiative (CEI) and the AIDS Education and Training Centers (AETC). The CEI provides tailored educational programming on site for health care providers on important topics in HIV care, including those addressed by the HIV Clinical Guidelines Program. The AETC provides conferences, grand rounds and other programs that cover topics contained in AIDS Institute guidelines.

Support service providers are targeted through the HIV Education and Training initiative which provides training on important HIV topics to non-physician health and human services providers. Education is carried out across the State as well as through video conferencing and audio conferencing.

The HIV Clinical Guidelines Program also works in a coordinated manner with the HIV Quality of Care Program to promote implementation of HIV guidelines in New York State. By developing quality indicators based on the guidelines, the AIDS Institute has created a mechanism for measurement of performance that allows providers and consumers to know to what extent specific guidelines have been implemented.

Finally, best practices booklets are developed through the HIV Clinical Guidelines Program. These contain practical solutions to common problems related to access, delivery or coordination of care, in an effort to ensure that HIV guidelines are implemented and that patients receive the highest level of HIV care possible.

IMPLEMENTATION TOOLS

Personal Digital Assistant (PDA) Downloads

For information about [availability](#), see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better
Living with Illness
Staying Healthy

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

New York State Department of Health. Prevention of secondary disease: lipid screening and cardiovascular risk. New York (NY): New York State Department of Health; 2007 Jun. 5 p. [8 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2007 Jun

GUIDELINE DEVELOPER(S)

New York State Department of Health - State/Local Government Agency [U.S.]

SOURCE(S) OF FUNDING

New York State Department of Health

GUIDELINE COMMITTEE

Not stated

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Not stated

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available from the [New York State Department of Health AIDS Institute Web site](#).

AVAILABILITY OF COMPANION DOCUMENTS

This guideline is available as a Personal Digital Assistant (PDA) download from the [New York State Department of Health AIDS Institute Web site](#).

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI Institute on September 5, 2007.

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