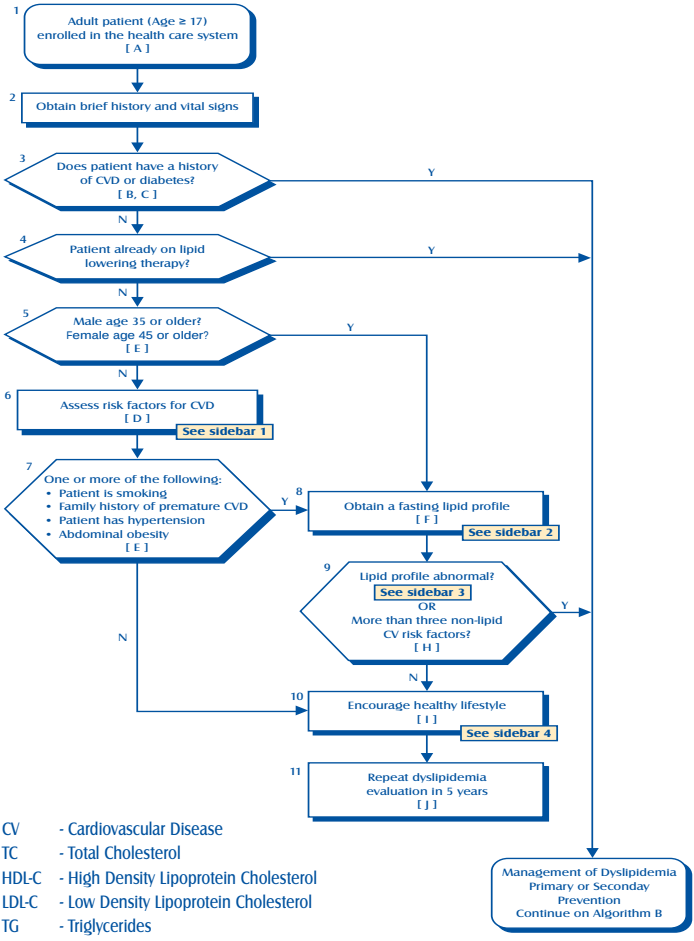
VA/DoD Clinical Practice Guideline
Management of Dyslipidemia
Pocket Guide

Module A: Screening



CV - Cardiovascular Disease
TC - Total Cholesterol
HDL-C - High Density Lipoprotein Cholesterol
LDL-C - Low Density Lipoprotein Cholesterol
TG - Triglycerides

VA access to full guideline: http://www.oqp.med.va.gov/cpg/cpg.htm
DoD access to full guideline: http://www.qmo.amedd.army.mil
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Sidebar 1 - Major Risk factors for CVD

Non-Modifiable	Modifiable
• Increasing age	• Tobacco use/Cigarette smoking
• Male gender	• Dyslipidemia (low HDL-C)
• Family history of premature CVD	• Diabetes Mellitus
	• Hypertension

Risk factors are multiplicative in their effect. Therefore, in the assessment and management of coronary risk in any individual, it is essential to adopt a global approach consisting of an evaluation and treatment of all existing risk factors.

Sidebar 2 - Screening Criteria

a. Male age 35 or older OR

b. Female age 45 or older OR

c. More than one of the following:
   - Family history of premature CVD;
   - Patient is smoking or
   - Patient has HTN or is being treated for HTN

d. Consider obtaining lipid profile for young adults with abdominal obesity

Sidebar 3: Abnormal Lipids

Total Cholesterol (TC)	≥240 mg/dL (≥6.2 mmol/L)
HDL-Cholesterol	<40 mg/dL (<1.0 mmol/L)
Triglycerides (TG)	≥200 mg/dL (≥2.3 mmol/L)
LDL-Cholesterol	≥130 mg/dL (≥4.9 mmol/L)

Sidebar 4 - Lifestyle Modifications

Tobacco use/Smoking cessation

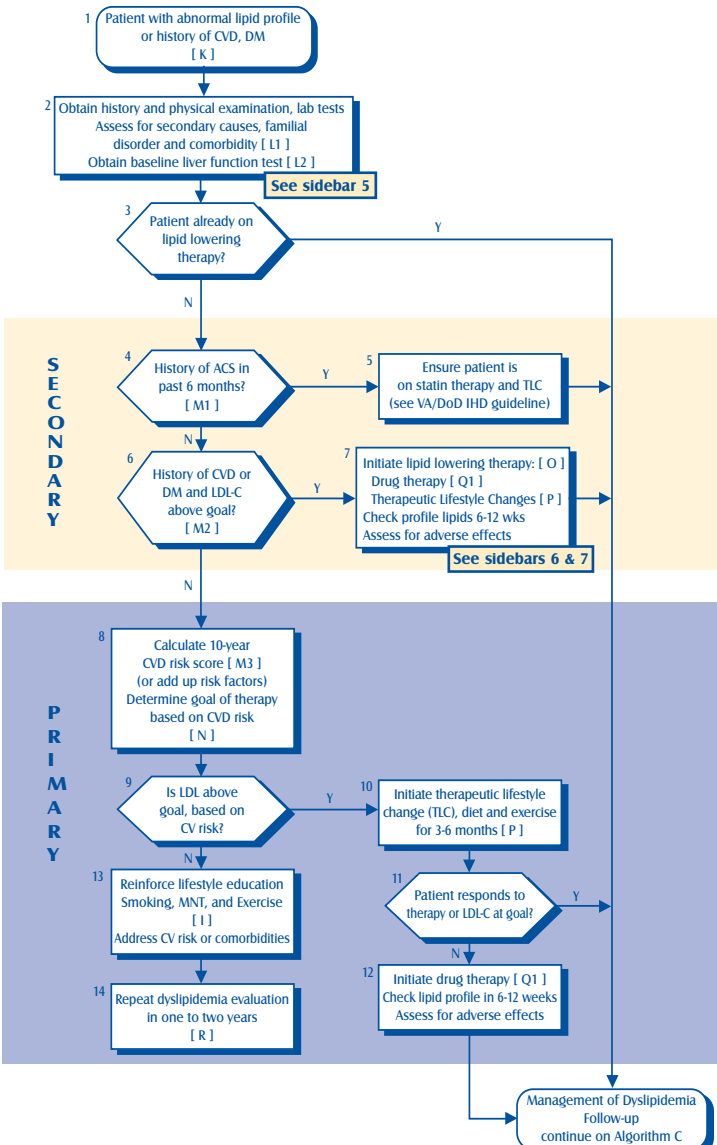
Healthy diet

Increase physical activity

Weight loss, if indicated

Reduce excessive alcohol use

Module B: Initiation of Therapy



Sidebar 5 - Secondary Causes of Lipid Abnormalities

Disorder/Patient Characteristic	Effect on Lipids	Laboratory Test
Chronic renal failure/ post renal transplantation	↑ TG, ↑ TC, ↓ HDL-C	S_{Cr}
DM	↑ TG, ↑ TC, ↓ HDL-C	Glucose, HbA1c
Ethanol use	↑ TG, ↑ HDL-C	—
HIV/AIDS Wasting	↑ TG, ↓ TC, ↓ HDL-C, ↓ LDL-C	—
HIV/AIDS (HAART)	↑ TG, ↑ TC, ↑ LDL-C	—
Hypothyroidism	↑ TG, ↑ TC, ↑ LDL-C	TSH
Inactivity	↓ HDL-C	—
Nephrotic syndrome	↑ TC, ↑ LDL-C	Urinalysis, serum albumin
Obesity	↑ TG, ↓ HDL-C	—
Obstructive liver disease	↑ TC	LFTs (Alkaline phosphatase, total bilirubin)
Estrogen therapy	↑ TG, ↓ LDL-C, ↑ HDL-C	—
Medications	Variable	—

AIDS = acquired immune deficiency syndrome; DM = diabetes mellitus; HAART = Highly Active AntiRetroviral Therapy; HbA1c = glycosylated hemoglobin; HDL-C = high-density lipoprotein cholesterol; HIV = human immuno deficiency virus; LDL-C = low-density lipoprotein cholesterol; LFTs = liver function tests; SCr = serum creatinine; TC = total cholesterol; TG = triglycerides; TSH = thyroid-stimulating hormone.

Sidebar 7 - Essential Components of Therapeutic Lifestyle Changes (TLC)

Component	Recommendation
LDL-raising nutrients	
Saturated fats*	Less than 7% of total calories
Dietary cholesterol	Less than 200 mg/day
Therapeutic options for LDL lowering	
Plant stanols/sterols	2 grams per day
Increased viscous (soluble) fiber	10—25 grams per day
Total calories (energy)	Adjust total caloric intake to maintain desirable body weight/prevent weight gain
Physical activity	Include enough moderate exercise to expend at least 200 kcal per day

**Trans fatty acids are another LDL-raising fat that should be kept at a low intake.*

Sidebar 6 - Summary of Dyslipidemia Therapy Thresholds and Goals

	Risk Category	Disease Status or Risk Factors	Calculated 10-Year Risk	TLC	LDL-C Level for Considering Statin Drug Therapy	LDL Goal of Therapy*
Secondary Prevention	Very high	Recent ACS	N/A	All	All	<100 mg/dL <70 optional
		CHD or DM with other risk factors	N/A	All	≥100 mg/dL	< 100 mg/dL
		DM with no other risk factors	N/A	All	≥130 mg/dL 100-129 optional	<130 mg/dL
Primary Prevention	High	More than 2 RF	≥ 20%	All	≥130 (or HDL <40) 100-129 optional	<100 mg/dL
	Intermediate	More than 2 RF	15-20%	All	≥130 mg/dL	<130 mg/dL
			10-14% **	All	≥160 mg/dL	<130 mg/dL
	Low	0 or 1 RF	N/A	All	≥190 mg/dL	<160 mg/dL

LDL-C reduction of 30-40% from baseline may be considered an alternative therapeutic strategy for patients who can not meet the above goals.

N/A = Not applicable; TLC = Therapeutic Lifestyle Changes; RF = Risk Factor

* *Lowering absolute risk involves modification of multiple risk factors/co-morbidities, not only LDL-C levels. Therefore, these goals should serve as a general guide and clinical judgment should be used to modify the goals as appropriate for each patient.*

** *There is insufficient evidence at this time to recommend routine screening for other risk markers not included in the risk index (e.g., FH, hsCRP, metabolic syndrome, depression), or evidence of significant atherosclerotic burden (e.g., high coronary artery calcification scores, intima medial thickness, abnormal brachial reactivity, or abnormal ankle-brachial index). These risk markers may be useful in the intermediate risk patient for whom it is less convincing that drug therapy would have a meaningful impact on outcomes.*

Sidebar 8 - Currently Available Statins to Attain a 30-40% Reduction of LDL-C Levels

Drug	Dose, mg/day	LDL Reduction, %
Atorvastatin	10†	39
Lovastatin	40†	31
Pravastatin	40†	34
Simvastatin	20—40†	35—41
Fluvastatin	40—80	25—35
Rosuvastatin	5—10‡	39—45

* *Estimated LDL reductions were obtained from U.S. Food and Drug Administration (FDA) package inserts for each drug.*

† *All of these are available at doses up to 80 mg. For every doubling of the dose above standard dose, an approximate 6% decrease in LDL-C level can be obtained.*

‡ *For rosuvastatin, doses available up to 40 mg; the efficacy for 5 mg is estimated by subtracting 6% from the FDA–reported efficacy at 10 mg. (Jones et al., 1998)*

Module C: Follow-up Treatment