Toward Optimized Practice

PREVENTION AND MANAGEMENT OF CVD RISK IN PRIMARY CARE
Summary of the Clinical Practice Guideline | February 2015

LIPID ALGORITHM

(Excludes those with familial hypercholesterolemia)

Primary Prevention
no previous cardiovascular disease

Men aged ≥ 40
Women aged ≥ 50

OR

Compelling risk factor

Test non-fasting lipid
+
Estimate 10-year cardiovascular disease risk

(See calculator options*)

Secondary Prevention
previous cardiovascular disease

Risk < 10%	Risk 10-19%	Risk ≥ 20%
• Encourage lifestyle interventions • Re-test 5 years with risk estimation	• Encourage lifestyle interventions • Suggest discussing moderate potency statin with patient	• Encourage lifestyle interventions • Strongly encourage discussing high potency statin with patient • Consider ASA, balance risk/benefit

Statin Initiated?

No → Re-test 5 years with risk estimation

Yes

- CK & ALT at baseline or for monitoring not required, perform as clinically indicated
- Encourage adherence
- Lipid monitoring not required

If intolerant to high or moderate potency statin, offer moderate or low potency statin, respectively.
All steps require clinical judgement and are dependent on patient preference.

*Risk Calculator Options:
The University of Edinburgh Cardiovascular Risk Calculator: http://cvrisk.mvm.ed.ac.uk/calculator/calc.asp
Best Science Medicine: http://chd.bestsciencemedicine.com/calc2html#basic
QRISK2 2014: http://www.qrisk.org/ (for chronic kidney disease patients)

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These recommendations are systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances. They should be used as an adjunct to sound clinical decision making.

Clinicians may initiate lipid testing and risk estimation before age 40 if high clinical suspicion exists (i.e., compelling risk factors such as family history, hypertension, diabetes, or smoking). Regardless, testing before 35 is not recommended for the vast majority of patients and risk estimation tools do not include patients younger than 35. Primary prevention screening beyond age 75 is generally not recommended.

Risk can be calculated using a number of risk calculators but each clinician should use the same one consistently. The Framingham calculator has been validated in a Canadian population and is likely preferred. The following calculator has been created for this guideline:

http://chd.bestsciencemedicine.com/calc2html#basic

Lifestyle interventions include: smoking cessation, exercise, and the Mediterranean diet.

Exercise: >150 minutes in >4 sessions of moderate (brisk walking) to vigorous exercise/week.

Statin Dosing Ranges and Intensity:

Intensity	Statin Options
Low Intensity	Pravastatin 10-20mg; Lovastatin 10-20mg; Simvastatin 5-10mg; Atorvastatin 5mg; Rosuvastatin 2.5mg
Moderate Intensity	Pravastatin 40-80mg; Lovastatin 40-80mg; Simvastatin 20-40mg; Atorvastatin 10-20mg; Rosuvastatin 5-10mg
High Intensity	Atorvastatin 40-80mg; Rosuvastatin 20-40mg

Adapted from: Stone NJ, Robinson J, Lichtenstein AH, Bairey Merz CN, Blum CB, Eckel RH, et al. 2013 ACC/AHA guideline on the treatment of blood cholesterol to reduce atherosclerotic cardiovascular risk in adults: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines. Circulation. 2014 Jun 24;129(25 Suppl 2):S46-8.

Benefits of Therapies:

Therapy		Estimating Benefit (relative risk reduction)	Example if baseline risk estimated at 20% over 10 years		
			Absolute Risk Reduction	Number Needed to Treat (NNT)	New Risk Estimate
Smoking Cessation		Recalculate without smoking	9%†	12†	11%†
Mediterranean Diet		30%	6%	17	14%
Exercise		30%	6%	17	14%
Statin Intensity	Low	25%	5%	20	15%
	Moderate	30%	6%	17	14%
	High	35%	7%	15	13%
ASA		12%	2%	50	18%

†Example used a 53 year old male smoker with total cholesterol 5, HDL 1.2 and systolic BP 128, estimated risk from Framingham (from http://cvrisk.mvm.ed.ac.uk/calculator/calc.asp and http://bestsciencemedicine.com/chd/calc2.html) to attain a 20% risk over 10 years.