

## Cardiovascular Disease Referral Guidelines

These guidelines are intended to provide management and referral guidelines to Primary care providers caring for women with established cardiovascular disease or at risk for development of cardiovascular disease. These guidelines are based on guideline and consensus statements referenced herein. The data have been adapted from The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7) and Third Report of the Expert Panel on Detection, Evaluation, and Treatment of the High Blood Cholesterol in Adults (Adult Treatment Panel III)

	Manage by Primary Care Provider	May Consider Referral to Specialist*	Should Consider Referral to Specialist*
<b>Hypertension (Table 1)</b>	Stage1 or 2 Hypertension <b>No</b> Compelling Indications  BP at Goal (< 140/90 mmHg or <130/80 mmHg with DM or CKD)	Stage1 or 2 Hypertension <b>With</b> Compelling Indications  BP at Goal (< 140/90 mmHg or <130/80 mmHg with DM or CKD)	Stage1 or 2 Hypertension <b>With</b> Compelling Indications  BP <b>NOT</b> at Goal (<140/90 mmHg or <130/80 mmHg with DM or CKD)
<b>Lipids (Tables 2-3)</b>	All Primary Prevention 2+ Risk Factors LDL at Target Levels <i>(See Table 4 for Targets)</i>	2+ Risk Factors CHD or CHD Equivalent LDL <b>NOT</b> at Target <u>or</u> Strong Family History of Premature CAD in Women	CHD or CHD Equivalent <i>(See Table 5 for Equivalents)</i> LDL <b>Not</b> at Goal despite Rx Need for Combination Rx Side Effects on Lipid Rx
<b>Framingham Cardiovascular Disease Risk Assessment (Table 6)</b>	≤10% Ten Year Risk	10 – 20 % Ten Year Risk	> 20% Ten Year Risk
<b>Cardiac Rehabilitation</b>	<u>Refer to Cardiac Rehab for:</u> Acute MI (< 12 months) Coronary bypass surgery Stable Angina pectoris Heart valve repair/replacement PTCA/coronary stenting Heart transplantation	<u>n / a</u>	<u>n / a</u>

\* Cardiologist, Nephrologist, Endocrinologist

Table 1

BP Classification	SBP* (mmHg)	DBP* (mmHg)	Lifestyle Modification	Initial Drug Therapy	
				Without Compelling Indication	With Compelling Indications
<b>Normal</b>	<120	And <80	Encourage	No antihypertensive drug indicated.	Drug(s) for compelling indications.‡
<b>Prehypertension</b>	120-139	Or 80-89	Yes		
<b>Stage 1 Hypertension</b>	140-159	Or 90-99	Yes	Thiazide-type diuretics for most. May consider ACEI, ARB, BB, CCB, or combination.	Drug(s) for the compelling indications.‡ Other antihypertensive drugs (diuretics, ACEI, ARB, BB, CCB) as needed.
<b>Stage 2 Hypertension</b>	≥160	Or ≥100	Yes	Two-drug combination for most† (usually thiazide-type diuretic and ACEI or ARB or BB or CCB).	

DBP - diastolic blood pressure; SBP - systolic blood pressure

Drug abbreviations: ACEI – angiotensin converting enzyme inhibitor; ARB – angiotensin receptor blocker; BB – beta-blocker; CCB – calcium channel blocker.

\* Treatment determined by highest BP category.

† Initial combined therapy should be used cautiously in those at risk for orthostatic hypotension

‡ Treat patients with chronic kidney disease or diabetes to BP goal of <130/80 mmHg.

Table 2

Risk Category	LDL Goal	LDL Level at Which to Initiate Therapeutic Lifestyle Changes (TLC)	LDL at Which to Consider Drug Therapy
<b>CHD or CHD Risk Equivalents (10-year risk &gt;20%)</b>	<100 mg/dL	≥100 mg/dL	≥130 mg/dL (100-129 mg/dL: drug optional)*
<b>2+ Risk Factors (10-year risk ≤20%)</b>	<130 mg/dL	≥130 mg/dL	10-year risk 10-20%: ≥130 mg/dL
			10-year risk <10%: ≥160 mg/dL
<b>0-1 Risk Factor†</b>	<160 mg/dL	≥160 mg/dL	≥190 mg/dL (160-189 mg/dL: LDL-lowering drug optional)

\* Some authorities recommend use of LDL-lowering drugs in this category if an LDL cholesterol < 100 mg/dL cannot be achieved by therapeutic lifestyle changes. Other prefer use of drugs that primarily modify triglycerides and HDL e.g. nicotinic acid or fibrate. Clinical judgment may also call for deferring drug therapy in this subcategory.

† Almost all people with 0-1 risk factor have 10-year risk <10%, thus 10-year risk assessment in people with 0-1 risk factor is not necessary.

Table 3

<b>Major Risk Factors (Exclusive of LDL Cholesterol) That Modify LDL Goals*</b>
Cigarette smoking
Hypertension (BP ≥140/90 mmHg or on antihypertensive medication)
Low HDL cholesterol (<40 mg/dL)†
Family history of premature CHD (CHD in male first degree relative <55 years; CHD in female first degree relative <65 years)
Age (men ≥45 years; women ≥55 years)*

\* In ATP III, diabetes is regarded as a CHD risk equivalent

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

Table 4

Three Categories of Risk that Modify LDL Cholesterol Goals

<b>Risk Category</b>	<b>LDL Goal (mg/dL)</b>
CHD and CHD risk equivalents	<100
Multiple (2+) risk factors*	<130
Zero to one risk factor	<160

\*Risk factors that modify the LDL goal are listed in Table 3

Table 5

<b>CHD Equivalents</b>
Other forms of atherosclerotic disease (peripheral arterial disease, abdominal aortic aneurysm, and symptomatic carotid artery disease)
Diabetes
Multiple risk factors that confer a 10-year risk for CHD >20%

Table 6

Estimate of 10-Year Risk for Women (Framingham Point Scores)

Age	Points
20-34	-7
35-39	-3
40-44	0
45-49	3
50-54	6
55-59	8
60-64	10
65-69	12
70-74	14
75-79	16

HDL (mg.dL)	Points
≥60	-1
50-59	0
40-49	1
<40	2

Systolic BP (mmHg)	If Untreated	If Treated
<120	0	0
120-129	1	3
130-139	2	4
140-159	3	5
≥160	4	6

Total Cholesterol	Age 20-39	Age 40-49	Age 50-59	Age 60-69	Age 70-79
<160	0	0	0	0	0
160-199	4	3	2	1	1
200-239	8	6	4	2	1
240-279	11	8	5	3	2
≥280	13	10	7	4	2

	Age 20-39	Age 40-49	Age 50-59	Age 60-69	Age 70-79
Nonsmoker	0	0	0	0	0
Smoker	9	7	4	2	1

Point Total	10-Year Risk %
<9	<1
9	1
10	1
11	1
12	1
13	2
14	2
15	3
16	4
17	5
18	6
19	8
20	11
21	14
22	17
23	22
24	27
≥25	≥30