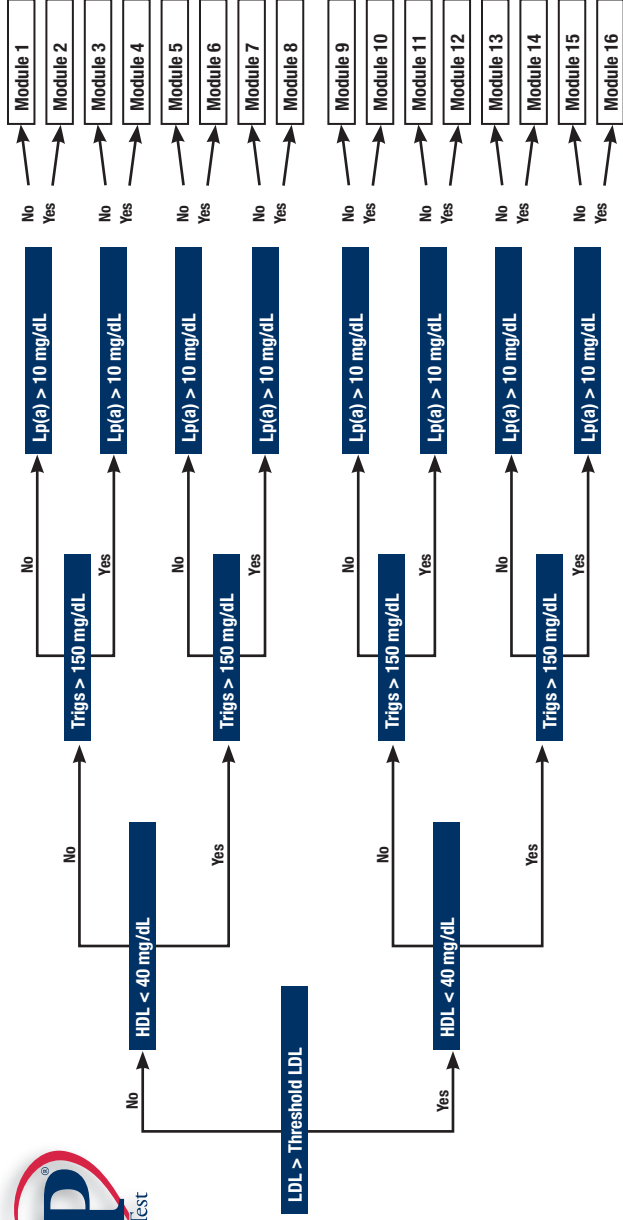


SELECTING OPTIMAL PATIENT TREATMENT PLANS



Low Risk Patients:

Patients with 0 or 1 major risk factor are considered low risk, and their LDL treatment threshold is 190 mg/dL.

Multiple Risk Factor Patients:

For patients with 2 or more major risk factors (but no known cardiovascular disease or diabetes) calculate their estimated 10 year risk based on their Framingham Point Score (Note that female and male patients use different risk factor tables).

if their 10 year risk is:

- >20% High Risk (Very High Risk (LDL <70mg/dL) patients have two or more major risk factors i.e. CAD and Type II Diabetes)
- 10 – 20% Intermediate Risk
- <10% Low Risk

Any person with elevated LDL cholesterol or other form of hyperlipidemia should undergo clinical or laboratory assessment to rule out secondary dyslipidemia before initiation of lipid-lowering therapy. Causes of secondary dyslipidemia include: diabetes, hypothyroidism, obstructive liver disease, chronic renal failure, & drugs that can alter cholesterol levels.

Module 1

Check for LDL Pattern B:

General / Low Risk

- Lifestyle/Diet/non-pharmacological intervention
- If not contraindicated use a drug that improves insulin sensitivity in diabetics (i.e. agent in the metformin or "glitazone" class)

Moderate Risk

Same as General / Low Risk PLUS:

- Aggressive diet, if diet unsuccessful consider fenofibrate 160 mg qD and/or niacin 1 to 4 grams per day
- If unable to shift LDL density consider lowering target [LDL] to less than 100 mg/dl

High Risk

Same as General / Low Risk PLUS:

- Target [trig]<100mg/dl with aggressive diet. If diet unsuccessful consider fenofibrate 160 mg qD and/or niacin 1 to 4 grams per day
- Consider specific drug therapy to shift LDL density niacin 1-2 grams per day fenofibrate or 160 mg qD
- If unable to shift LDL density consider lowering target [LDL] to <70mg/dl

Check for Decreased HDL2:

General / Low Risk / Moderate Risk

- Smoking cessation and increase aerobic activity
- Moderate EtOH consumption (equivalent of ~2 ounces pure EtOH/day) if not contraindicated

High Risk

Same as General / Low Risk PLUS:

Drug therapy:

- niacin 1-2 g/day.

Alternative agents:

- rosuvastatin 10 mg qD or simvastatin 40 or 80 mg qD
- If unable to raise [HDL2] consider lowering target [LDL] to less than 70 mg/dl with rosuvastatin or simvastatin

Check for Increased IDL:

General / Low Risk

- Rule out potential cause of very low fat, high carbohydrate diet

Moderate Risk

Same as General / Low Risk PLUS:

- Drug therapy with fenofibrate 160 mg qD

High Risk

Same as General / Low Risk PLUS:

- Drug therapy with combined low dose statin and low dose niacin

Check for Increased VLDL3:

General / Low Risk / Moderate Risk

- Lifestyle/Diet/non-pharmacological intervention: with additional carbohydrate restriction
- If overweight target 5-10% reduction in body weight

High Risk

Same as General / Low Risk PLUS

- Consider use of: fenofibrate 160 mg qD &/or niacin 1-4 g/day &/or Ω -3-fatty acids 4-12 g/day

Module 2

Lower Lp(a)

If patient is an African-American no treatment needed

- Thyroid hormone replacement to normalize TSH if hypothyroid
- ACE/ARB therapy in diabetics with microalbuminuria / proteinuria

Lifestyle/Diet/non-pharmacological intervention:

- moderate EtOH consumption (equivalent of ~2 ounces pure EtOH per day) if not contraindicated
- aspirin 81 mg qD if not contraindicated
- restriction of dietary trans-fatty acids

Drug therapy:

- Niacin 2-4 g/day &/or Ω -3-fa 8-12 g/day &/or
- Fenofibrate 160 mg qD

Alternative approach to lowering [Lp(a)] is to lower the [LDL] below current NCEP guidelines [Lp(a) loses predictive value if [LDL]<70 mg%]

If the patient is on a statin consider the use of rosuvastatin, simvastatin or pravastatin which do not raise Lp(a)

Module 3

Lower Triglycerides

Lifestyle/Diet/non-pharmacological intervention: NCEP TLC diet with additional carbohydrate restriction & alcohol avoidance

- If overweight target 5 to 10% reduction in body weight

If drug therapy needed:

Drug therapy:

- Fenofibrate 160 mg qD with food
- Gemfibrozil 600 mg bid

Alternative agents:

- Niacin 1-4 g/day &/or
- Ω -3-fa 4-12 g/day &/or
- Statins (rosuvastatin or atorvastatin)

Module 4

Lower Triglycerides and Lp(a)—See Module 3, 2

Module 5

Raise HDL

Target [total HDL] > 45 mg/dl in men / >55 mg/dl in women

Lifestyle interventions:

- Smoking cessation
- Aerobic exercise
- Modest EtOH intake (equivalent of ~2 ounces pure EtOH per day) if not contraindicated

Drug therapy:

- Niacin 1 to 2 g/day

Alternative agents:

- Rosuvastatin 10 mg qD
- Simvastatin 40 or 80 mg qD and/or
- Fenofibrate 160 mg qD

In high risk patients unresponsive to efforts to raise HDL consider lowering [LDL] to below NCEP target

Module 6

Raise HDL & Lower Lp(a)—See Module 5, 2

Module 7

Lower Triglycerides & Raise HDL—See Module 3, 5

Module 8

Lower Triglycerides, Raise HDL, & Lower Lp(a)—See Module 3, 5, 2

Module 9

Lower LDL

Lifestyle / Diet / non-pharmacological intervention:

- If overweight target 5 to 10% reduction in body weight
- If LDL exceeds NCEP drug initiation level or if patient extremely high risk start drug therapy

Drug Therapy:

- Statins
- Select agent & initial dose based on %LDL reduction needed to get to goal

Alternative agents:

- Ezetimibe 10 mg qD
- Niacin 1-4 grams qD
- Resins
- Fenofibrate 160 mg qD

If unable to get to goal on monotherapy consider combination therapy:

- Statin plus ezetimibe
- Statin plus resin
- Statin plus niacin
- Triple therapy

Module 10

Lower LDL & Lp(a)—See Module 9, 2

Module 11

Lower LDL & Triglycerides—See Module 9, 3

Module 12

Lower LDL, Triglycerides & Lp(a)—See Module 9, 3, 2

Module 13

Lower LDL & Raise HDL—See Module 9, 5

Module 14

Lower LDL, Raise HDL, & Lower Lp(a)—See Module 9, 5, 2

Module 15

Lower LDL & Triglycerides & Raise HDL—See Module 9, 3, 5

Module 16

Lower LDL & Triglycerides, Raise HDL, & Lower Lp(a)—See Module 9, 3, 5, 2

Note, in some cases contraindications may exist so use caution and refer to PDR to make final treatment recommendations.

Review Module 1 in all patients. Treat Modules in order listed.