St. Rose
Quality Care Network
A Dignity Health Member

Clinical Integration Steering Committee
Clinical Integration Chronic Disease Management Work Group

Lipid Program for Clinical Integration

Approved by _____ Date _____

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1. Rationale and purpose: to prevent cardiovascular events and other end organ damage
2. Screening for hyperlipidemia:
   Adults >=20 years old without CV risks should be screened every three years
   Adults >=20 years old with CV risk >10% over next 10 years should be screened every year
   Use calculator or list of "known CV disease and similar risk" and "prediction variables" (pages 2-3)
   Adults >=20 years old designated "very high risk" to test and start Rx immediately (page 2)
3. Patient education and self-management
   a. Diet/lifestyle: consider adopting or paraphrasing AHA patient pamphlet for all patients involved
   b. Community services: to be identified by care coordinator and approved by ED and medical director
4. Treatment algorithm: see below
5. Follow-up frequency
   a. Primary prevention: no CV risks: q 3 year
   b. Secondary prevention: q 2-3 months until goal achieved, then q 6 months
6. When to refer to care coordination
   a. Secondary prevention, known CV disease or similar risk: when there is lack of improvement of diet, activity and/or weight management after six months of treatment
   b. Secondary prevention, very high risk at time of initiating treatment
7. When to consider consultation/refer to higher level of care
   a. Very high risk patients
   b. Known cardiovascular disease and similar risk: either 10-year risk >25% or LDL-C goal not achieved after >six months medical treatment
8. Quality metrics and goals:
   a. Primary prevention: LDL-C metric, but no treatment goal
   b. Secondary prevention for known CV disease and similar risk
      LDL-C metric with goal LDL-C <100 mg/dL or >50% decrease
      Control for 80% of secondary prevention population/year
      CV risk assessment for 90% of secondary prevention population/year

c. Secondary prevention for very high risk:
LDL-C metric with goal <70 mg/dL
Control for 80% of secondary prevention population/year
CV risk assessment for 90% of secondary prevention population/year

Lipid-lowering primary prevention

- Patients: 20 to 79 years old without CVD
- Testing schedule: every three to five years
- Testing purpose: assess CV risks
- Treatment: exercise, diet and weight reduction when appropriate; give a statin, do not use other drug types
- Treatment end point: none
- Can do six-week LDL-C to confirm compliance

Known cardiovascular disease and similar risk

Treatment of patients with a history of any of the following is considered "secondary prevention" in UpToDate:
Coronary heart disease
Myocardial infarction
Angina
Coronary revascularization
Cerebrovascular disease
Stroke
Transient ischemic attack
Peripheral arterial disease
Multiple risk factors that confer a 10-year risk of CVD >20%
Chronic kidney disease with estimated GFR <45 mL/min per 1.73 m^2*

CVD: cardiovascular disease; GFR: glomerular filtration rate.
*Statin doses may require adjustment in patients with chronic kidney disease.

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Definition of "very high risk" in NCEP guidelines

Established coronary heart disease
PLUS
Multiple major risk factors (especially diabetes)
OR
Severe and poorly controlled risk factors (especially continued smoking)
OR
Multiple risk factors of the metabolic syndrome (especially triglycerides ≥200 plus non-HDL-C ≥130 plus HDL-C <40)
OR
Acute coronary syndrome

Adapted from Grundy SM, Cleeman JI, Merz NB, et al. Circulation. 2004; 110: 227

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Prediction variables used in ACC/AHA pooled cohort hard CVD risk calculator (2013)

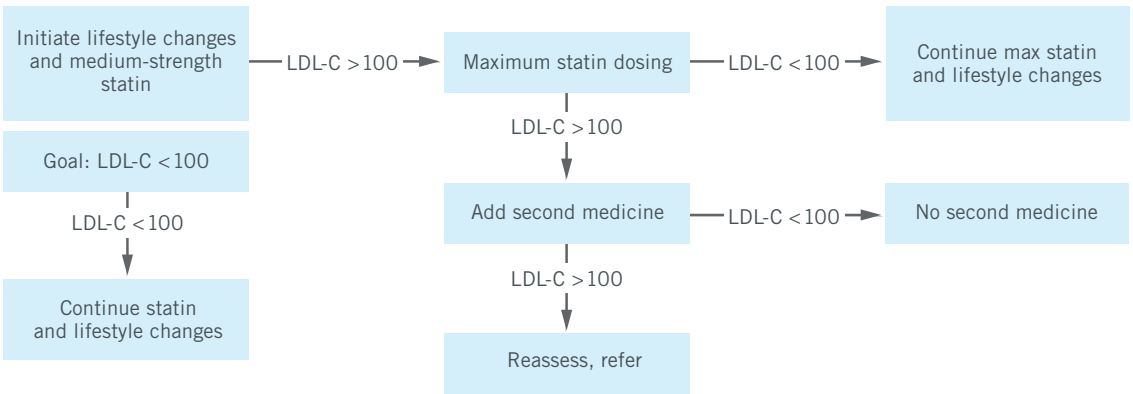
- Age
- Gender
- Total cholesterol (mg/dL)
- HDL cholesterol (mg/dL)
- Systolic blood pressure (mmHg)
- Blood pressure treatment (yes or no)
- Diabetes mellitus (yes or no)
- Current smoking (yes or no)

Multivariate CV risk calculators

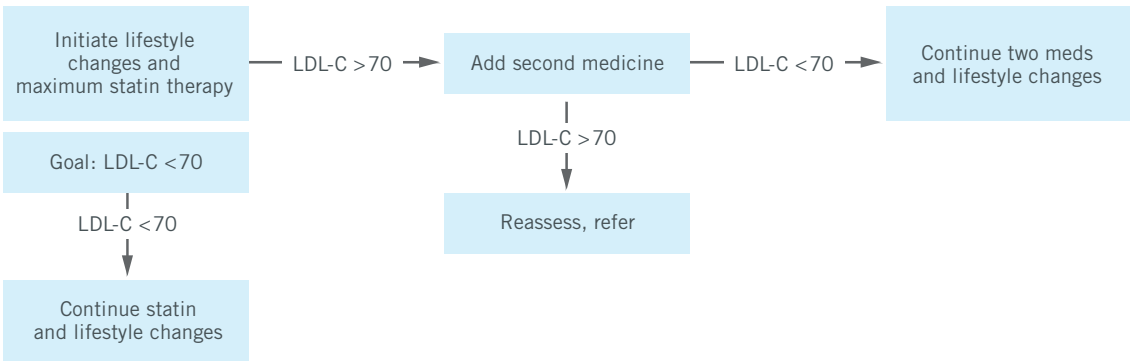
- QxMD app for smartphones: ACC/AHA CV risk calculator, Framingham risk score
- QRISK lifetime CV calculator – available on uptodate.com

Lipid-lowering secondary prevention

Usual risk, with stable CVD and similar risk



Very high risk



Intensity of daily statin therapy

- Maximum strength statin dosing: atorvastatin 40-80 mg; rosuvastatin 20-40 mg
- Medium strength statin dosing: lovastatin 40 mg; pravastatin 40 mg; simvastatin 40 mg; atorvastatin 10-20 mg; rosuvastatin 5-10 mg
- Low-strength statin dosing: doses less than moderate-intensity therapy

References

1. Uptodate.com
2. Berry JD, Dyer A, Cai, X. Lifetime risks of Cardiovascular diseases. *NEJM.* 2012; 366: 321.
3. Grundy SM, Cleeman JI, Merz NB, et al. *Circulation.* 2004; 110: 227. Table of very high-risk cardiovascular factors.
4. Stone NJ, et.al. 2013 ACC/AHA guidelines on the treatment of blood cholesterol to reduce atherosclerotic cardiovascular risk in adults. *Circulation.* 2013; oi.cir.0000437738.63853.7a https://doi.org/10.1161/01.cir.0000437738.63853.7a

Care Team Guidelines