The following guideline recommends risk assessment, stratification, education, counseling and pharmacological interventions for the management of low-density lipoprotein cholesterol (LDL-C).

<table>
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<th>Eligible Population</th>
<th>Key Components</th>
<th>Recommendation and Level of Evidence</th>
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</table>
| Males ≥ 35 years of age | Risk Assessment | • Screening: Initial fasting lipid profile (i.e., total, LDL-C, HDL-C, triglycerides); If in normal range, repeat at least every five years. [D]  
• Treatment is based on LDL-C, major risk factors and presence of CHD or equivalent. |
| Females ≥ 45 years of age | Major Risk Factors:  
• Cigarette smoking  
• Diabetes mellitus  
• Hypertension (BP ≥ 140/90), or on antihypertensives  
• HDL-C: < 40 (HDL-C ≥ 60 = negative risk factor)  
• Family history (first degree) of premature CHD  
• Age (men ≥ 45 years; women ≥ 55 years) | CHD Risk Equivalents:  
• Other clinical forms of atherosclerotic disease (e.g., peripheral arterial disease, abdominal aortic aneurysm, and/or symptomatic carotid artery disease)  
• CHD and CHD risk equivalents give a > 20% risk of a CHD event within 10 years |
| Categorical Risk | Goal for LDL-C |
| • CHD or ≥ 2 risk factors and 10-year risk: > 10% | < 100 mg/dL |
| • ≥ 2 risk factors and 10-year risk: ≤ 10% | < 130 mg/dL |
| • 0 - 1 risk factor | < 160 mg/dL |
| Education and risk factor modification | Educate patient/family regarding Therapeutic Lifestyle Changes (TLC):  
• Reduce saturated fats and cholesterol [A], increase plant stanols/sterol (e.g. cholesterol-lowering margarines), increase viscous soluble fiber (e.g. oats, barley, lentils, beans), consider increasing fish consumption (Omega-3 fatty acids).  
• Decrease weight and increase exercise to moderate level of activity for 30 minutes, most days of the week [A]. |
| Pharmacologic interventions | • Therapeutic Lifestyle Changes (TLC) for all. Drug therapy based on the LDL-C level.  
• Statin therapy based on risks and goals, or if the LDL-C is not at goal by 3 months after TLC have begun in earnest.  
• Statin therapy for all patients with CHD, CHD risk equivalents, regardless of baseline lipid level. When starting or raising dose, check ALT.  
• LFT at physician discretion for patients with liver disease or risk factors.  
• For prolonged myalgias, consider dosage reduction or statin change.  
• Evaluate and adjust drug therapy every 3 months until goal achieved. If statins not tolerated or ineffective, consider alternate medical therapy. |

Levels of Evidence for the most significant recommendations: A = randomized controlled trials; B = controlled trials, no randomization; C = observational studies; D = opinion of expert panel

Approved by MQIC Medical Directors August 2009, 2011, 2013

Michigan Quality Improvement Consortium Guideline

Screening and Management of Hypercholesterolemia

This guideline represents core management steps. It is based on several sources, including: Lipid Management in Adults, Institute for Clinical Systems Improvement, Twelfth Edition, November 2011 (icsi.org). Individual patient considerations and advances in medical science may supersede or modify these recommendations.