

Client	HEALTH BENCHMARKS, INC. STANDARD ALGORITHM <i>Implemented for Blue Cross Blue Shield of Texas</i>		
Measure Title	LDL FOR DIABETES		
Disease State	Diabetes	Indicator Classification	Screening
Strength of Recommendation	B (for most adults with diabetes) C (for adults with low-risk lipid values [LDL < 100 mg/dl, HDL > 50 mg/dl, and triglycerides <150 mg/dl])		
Organizations Providing Recommendation	American Diabetes Association		
Clinical Intent	To ensure that all members with diabetes receive LDL monitoring at a clinically appropriate frequency.		
Physician Specialties	Cardiovascular Disease Non-Interventional, Endocrinology, Family Practice, Geriatric Medicine, Internal Medicine, Nephrology		
Background	<p>Disease Burden</p> <ul style="list-style-type: none"> • Diabetes is a chronic, serious disease that affects approximately 14.7 million Americans. This disease is the leading cause of new cases of blindness among adults aged 20-74, the leading cause of end-stage renal disease, and a major contributing cause of lower extremity amputations,[1-3] and is responsible for over 200,000 deaths each year. • About 65% of patients with diabetes die from cardiovascular events.[4] <p>Reason for Indicated Intervention or Treatment</p> <ul style="list-style-type: none"> • Diabetes is a major risk factor for cardiovascular disease, and is considered to be a coronary heart disease (CHD) equivalent in terms of risk stratification for cholesterol management.[5-8] • Lipid screening in patients with diabetes is essential for treatment decisions. <p>Evidence Supporting Intervention or Treatment</p> <ul style="list-style-type: none"> • A meta-analysis of 12 large randomized trials evaluating lipid lowering drug treatment found that diabetics on primary prevention therapy had a 21% risk reduction in major coronary events (i.e., coronary artery disease death, non-fatal myocardial infarction, or myocardial revascularization procedures).[9] • A randomized control trial comparing the use of atorvastatin lipid-lowering therapy for type 2 diabetics found a 36% reduction in coronary events, 31% reduction in coronary revascularization procedures, and a 		

48% reduction in stroke compared to those on placebo.[10]

**Clinical
Recommendations**

- The American Diabetes Association (ADA) and NCEP-ATP-III guidelines both recommend that all adults with diabetes be managed to achieve an LDL cholesterol < 100 mg/dl. For diabetics with CAD, it is recommended that LDL cholesterol be <70mg/dL.[6, 11] ADA recommends that patients receive lipid monitoring at least yearly, and more often if needed to manage care.[11]
- The ADA recommends that adults with diabetes be tested at least annually for lipid disorders, and more often if needed to achieve desired lipid levels. This should be done by obtaining a fasting lipoprotein profile (total cholesterol, LDL cholesterol, HDL cholesterol, and triglycerides).[11]
- According to the ADA, adults with low-risk lipid values (LDL < 100 mg/dL, HDL > 50 mg/dL, triglycerides < 150 mg/dL) should get checked every 2 years.[12]

Source

Healthcare Effectiveness Data and Information Set (HEDIS®) 2008 Technical Specification for Physician Measurement

**Denominator
Definition**

Continuously enrolled members ages 18-75 years by the end of the measurement year who were identified as having diabetes during the measurement year or year prior.

**Denominator
Codes**

Diabetes

ICD-9 diagnosis code(s): 250.xx, 357.2x, 362.0x, 366.41, 648.0x

DRG code(s): 294, 295

Outpatient/nonacute inpatient setting

CPT-4 code(s): 92002-92014, 99201-99205, 99211-99215, 99217-99220, 99241-99245, 99301-99313, 99315, 99316, 99318, 99321-99328, 99331-99337, 99341-99345, 99347-99350, 99384-99387, 99394-99397, 99401-99404, 99411, 99412, 99420, 99429, 99455, 99456, 99499

UB revenue code(s): 0118, 0128, 0138, 0148, 0158, 019x, 051x, 052x, 055x, 057x-059x, 066x, 077x, 082x-085x, 088x, 0982, 0983

Acute inpatient or emergency room setting

CPT-4 code(s): 99221-99223, 99231-99233, 99238, 99239, 99251-99255, 99261-99263, 99281-99285, 99291

UB revenue code(s): 010x, 0110-0114, 0119, 0120-0124, 0129, 0130-0134, 0139, 0140-0144, 0149, 0150-0154, 0159, 016x, 020x-022x, 045x, 072x, 080x, 0981, 0987

**Denominator
Exclusion Definition**

Members in the denominator with a diagnosis of polycystic ovaries at any time in the member's history who did **NOT** have a face-to-face encounter with a diagnosis of diabetes in any setting during the measurement year or year prior, or members diagnosed with gestational diabetes or steroid-induced diabetes during the measurement year or year prior who did **NOT** have a face-to-face encounter with a diagnosis of diabetes in any setting during the measurement

year or year prior.

**Denominator
Exclusion Codes**

Polycystic ovaries

ICD-9 diagnosis code(s): 256.4x

Diabetes

ICD-9 diagnosis code(s): 250.xx, 357.2x, 362.0x, 366.41, 648.0x

DRG code(s) : 294, 295

Outpatient/nonacute inpatient setting

CPT-4 code(s): 92002-92014, 99201-99205, 99211-99215, 99217-99220, 99241-99245, 99301-99313, 99315, 99316, 99318, 99321-99328, 99331-99337, 99341-99345, 99347-99350, 99384-99387, 99394-99397, 99401-99404, 99411, 99412, 99420, 99429, 99455, 99456, 99499

UB revenue code(s): 0118, 0128, 0138, 0148, 0158, 019x, 051x, 052x, 055x, 057x-059x, 066x, 077x, 082x-085x, 088x, 0982, 0983

Acute inpatient or emergency room setting

CPT-4 code(s): 99221-99223, 99231-99233, 99238, 99239, 99251-99255, 99261-99263, 99281-99285, 99291

UB revenue code(s): 010x, 0110-0114, 0119, 0120-0124, 0129, 0130-0134, 0139, 0140-0144, 0149, 0150-0154, 0159, 016x, 020x-022x, 045x, 072x, 080x, 0981, 0987

Steroid-induced or gestational diabetes

ICD-9 diagnosis code(s): 251.8x, 648.8x, 962.0x

**Numerator
Definition**

Members who had LDL levels measured through direct means during the measurement year.

Numerator Codes

LDL measurement

CPT-4 code(s): 80061, 83700, 83701, 83704, 83715, 83716, 83721

LOINC code(s): 2089-1, 12773-8, 13457-7, 18261-8, 18262-6, 22748-8, 24331-1, 39469-2, 49132-4 (if available)

CPT category II code(s): 3048F, 3049F, 3050F (if available)

**Physician Attribution
Description**

If client data does not contain PCP:

Score all physicians (in the selected specialties) who saw the member during the measurement year

If client data contains PCP:

Score all primary care physicians who were assigned to the member during the measurement year.

References

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 4. CDC. *National Diabetes Fact Sheet*. 2005 Jan 31 2005 [cited 2007 October 15]; Available from: <http://www.cdc.gov/diabetes/pubs/estimates.htm#deaths>.
 5. *Diabetes mellitus: a major risk factor for cardiovascular disease. A joint editorial statement by the American Diabetes Association; The National Heart, Lung, and Blood Institute; The Juvenile Diabetes Foundation International; The National Institute of Diabetes and Digestive and Kidney Diseases; and The American Heart Association*. *Circulation*, 1999. **100**(10): p. 1132-3.
 6. *Third Report of the National Cholesterol Education Program (NCEP) Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III) final report*. *Circulation*, 2002. **106**(25): p. 3143-421.
 7. Brown, A.S., *Lipid management in patients with diabetes mellitus*. *Am J Cardiol*, 2005. **96**(4A): p. 26E-32E.
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 9. Costa, J., et al., *Efficacy of lipid lowering drug treatment for diabetic and non-diabetic patients: meta-analysis of randomised controlled trials*. *Bmj*, 2006. **332**(7550): p. 1115-24.
 10. Betteridge, J., *Benefits of lipid-lowering therapy in patients with type 2 diabetes mellitus*. *Am J Med*, 2005. **118 Suppl 12A**: p. 10-5.
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