eMeasure title	Measure description	Denominator criteria	Numerator criteria	Exclusions/exceptions	Definitions
Statin Therapy for the Prevention and Treatment of Cardiovascular Disease	Percentage of the following patients—all considered at high risk of cardiovascular events— who were prescribed or were on statin therapy during the measurement period: • Adults ages >= 21 years who were previously diagnosed with or currently have an active diagnosis of clinical atherosclerotic cardiovascular disease (ASCVD); or • Adults ages >=21 years with a fasting or direct low-density lipoprotein cholesterol (LDL-C) level >= 190 mg/dL; or • Adults ages 40–75 years with a diagnosis of diabetes with a fasting or direct LDL-C level of 70–189 mg/dL	All patients who meet one or more of the following criteria (considered at "high risk" for cardiovascular events, under the Adult Treatment Panel IV guidelines): *Denominator Population 1*: Patients ages >= 21 years at the beginning of the measurement period with clinical ASCVD diagnosis *Denominator Population 2*: Patients ages >= 21 years at the beginning of the measurement period who have ever had a fasting or direct laboratory result of LDL-C >= 190 mg/dL *Denominator Population 3:* Patients ages 40 to 75 years at the beginning of the measurement period with Type 1 or Type 2 diabetes and with a LDL-C result of 70–189 mg/dL recorded as the highest fasting or direct laboratory test result in the measurement year or during the two years prior to the beginning of the measurement period	Patients who are statin therapy users during the measurement period or who receive an order (prescription) to receive statin therapy at any point during the measurement period	Exclusions: None Exceptions: • Patients with (documented) allergy, intolerance, or other adverse effect to statin medication • Patients who have an active diagnosis of pregnancy or who are breastfeeding • Patients who are receiving palliative care • Patients with active liver disease or hepatic disease or insufficiency • Patients with end-stage renal disease (ESRD) • Patients with diabetes who have a fasting or direct LDL-C laboratory test result < 70 mg/dL and who are not taking statin therapy	*Clinical Atherosclerotic Cardiovascular Disease (ASCVD): – Acute coronary syndromes – History of myocardial infarction – Stable or unstable angina – Coronary or other arterial revascularization – Stroke or transient ischemic attack – Peripheral arterial disease of atherosclerotic origin *Lipoprotein Density Cholesterol (LDL-C) result: A fasting or direct LDL-C laboratory test performed and test result documented in the medical record *Statin Therapy: Administration of one or more of a group of medications that are used to lower plasma lipoprotein levels in the treatment of hyperlipoproteinemia; the group includes all statin-containing medication (HMG-CoA [3-hydroxy-3-methylglutaryl coenzyme A] reductase inhibitors)

eMeasure Title	Statin Therapy for the Prevention and Treatment of Cardiovascular Disease		
eMeasure Identifier (Measure Authoring Tool)	347	eMeasure Version number	0
NQF Number	Not applicable	GUID	5375d6a9-203b-4fff-b851-afa9b68d2ac2
Measurement Period	January 1, 20xx, through December 31, 20xx		
Measure Steward	Centers for Medicare & Medicaid Services		
Measure Developer	Quality Insights of Pennsylvania		
Endorsed By	None		
Description	Percentage of the following patients—all considered at high risk of cardiovascular events—who were prescribed or were on statin therapy during the measurement period: • Adults ages >= 21 years who were previously diagnosed with or currently have an active diagnosis of clinical atherosclerotic cardiovascular disease (ASCVD), or • Adults ages >=21 years with a fasting or direct low-density lipoprotein cholesterol (LDL-C) level >= 190 mg/dL, or • Adults ages 40–75 years with a diagnosis of diabetes with a fasting or direct LDL-C level of 70–189 mg/dL		
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Disclaimer	These performance measures are not clinical guidelines and do not establish a standard of medical care, and have not been tested for all potential applications. THE MEASURES AND SPECIFICATIONS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND.		
Measure Scoring	Proportion		
Measure Type	Process		
Stratification	None		
Risk Adjustment	None		
Rate Aggregation	None		
Rationale	This measure specification is based on the following clinical guideline: "2013 ACC/AHA Guideline on the Treatment of Blood Cholesterol to Reduce		

Atherosclerotic Cardiovascular Risk in Adults: A Report of the American College of Cardiology [ACC]/American Heart Association [AHA] Task Force on Practice Guidelines" (Stone et al. 2013). This document is also referred to as Adult Treatment Panel IV or ATP IV. It is an update to the National Cholesterol Education Program (NCEP), National Heart, Lung, and Blood Institute (NHLBI), and National Institutes of Health (NIH) guideline called ATP III, published in 2002.

To produce ATP IV, an expert panel synthesized evidence from randomized controlled trials to identify people most likely to benefit from cholesterol-lowering therapy. The ATP IV recommendations are intended to provide a strong evidence-based foundation for the treatment of blood cholesterol for the primary and secondary prevention and treatment of ASCVD in adult men and women (>= 21 years of age). The evidence demonstrated that cholesterol management recommendations should be based on a treatment strategy to incorporate optimal doses of statin therapy rather than on achievement of a target LDL-C level; however, it is important to monitor LDL cholesterol levels

ATP IV identifies four major statin benefit categories:
1. Secondary prevention in individuals with clinical ASCVD
2. Primary prevention in individuals with primary elevations (i.e., initial readings) of LDL-C >=190 mg/dL
3. Primary prevention in individuals with diabetes ages 40 to 75 years who have LDL-C 70 to 189 mg/dL
4. Primary prevention in individuals ages 40 to 75 years without diabetes but with estimated 10-year ASCVD risk >=7.5%, and LDL-C 70 to 189 mg/dL

The first three of these four categories were deemed "high risk" in ATP IV, so this measure of statin therapy focuses on patients in those high-risk categories. Stone et al. (2013) state as follows:

> The Expert Panel found extensive and consistent evidence supporting the use of statins for the prevention of ASCVD in many higher-risk primary- and all secondary-prevention individuals without New York Heart Association class II–IV heart failure who were not receiving hemodialysis.
>
> […]
>
> In addition, the relative reduction in ASCVD risk is consistent for primary and secondary prevention and for various patient subgroups. Therefore, statin therapy is recommended for individuals at increased ASCVD risk who are most likely to experience a net benefit in terms of the potential for ASCVD risk reduction and the potential for adverse effects.

Clinical Recommendation Statement	The addition of statin therapy reduces the risk of cardiovascular events (such as stroke and myocardial infarction) among high-risk individuals, defined as follows: individuals with clinical ASCVD, with LDL-C >= 190 mg/dL, or with diabetes and LDL-C 70–189 mg/dL (Stone et al. 2013).

This electronic clinical quality measure aligns with the 2013 ACC/AHA Guideline on the Treatment of Blood Cholesterol (Stone et al. 2013), which indicates the use of statins as the first line of cholesterol-lowering medication therapy to reduce the risk of ASCVD among those who currently do not have an ASCVD diagnosis and to lower the risk of cardiovascular events (such as stroke and myocardial infarction) among at-risk populations. |

Improvement Notation	Higher score indicates better quality.
Reference	Stone, N.J., J. Robinson, A.H. Lichtenstein, C.N. Bairey Merz, C.B. Blum, R.H. Eckel, A.C. Goldberg, D. Gordon, D. Levy, D.M. Lloyd-Jones, P. McBride, J.S. Schwartz, S.T. Shero, S.C. Smith Jr., K. Watson, and P.W.F. Wilson. "2013 ACC/AHA Guideline on the Treatment of Blood Cholesterol to Reduce Atherosclerotic Cardiovascular Risk in Adults: A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines." Full Panel Report Supplement. *Circulation*, vol. 129, no. 25, Suppl. 2, June 24, 2014, pp. S1–S45. Available at http://circ.ahajournals.org/content/early/2013/11/11/01.cir.0000437738.63853.7a/suppl/DC1.

Definitions	Clinical atherosclerotic cardiovascular disease (ASCVD) includes:
	• Acute coronary syndromes
	• History of myocardial infarction
	• Stable or unstable angina
	• Coronary or other arterial revascularization
	• Stroke or transient ischemic attack (TIA)
	• Peripheral arterial disease of atherosclerotic origin
	
	Lipoprotein density cholesterol (LDL-C) result: A fasting or direct LDL-C laboratory test performed and test result documented in the medical record.
	
	Statin therapy: Administration of one or more of a group of medications that are used to lower plasma lipoprotein levels in the treatment of hyperlipoproteinemia; the group includes all statin-containing medication (HMG-CoA [3-hydroxy-3-methylglutaryl coenzyme A] Reductase Inhibitors).
	
	Sample list of statin medications (list is NOT inclusive of all agents)
	[Generic name] (Brand or trade name) and (−) Medication type, if applicable:
	
	  [Atorvastatin] (Lipitor) – statin
	  [Fluvastatin] (Lescol XL or Lescol) – statin
	  [Lovastatin (Mevinolin)](Mevacor or Altoprev) – statin
	  [Pitavastatin] (Livalo)
	  [Pravastatin Sodium] (Pravachol) – statin
	  [Rosuvastatin Calcium] (Crestor) – statin
	  [Simvastatin] (Zocor) – statin
	  [Amlodipine Besylate/Atorvastatin Calcium] (Caduet) – combination
	  [Ezetimibe/Simvastatin] (Vytorin) – combination
	  [Niacin/Lovastatin] (Advicor) – combination
	  [Niacin/Simvastatin] (Simcor) – combination
	  [Sitagliptin/Simvastatin] (Juvisync) – diabetes combination
	  [Sitagliptin Phosphate/Simvastatin] (Juntadueto) – diabetes combination

Guidance	**Numerator instructions and guidance:** • Current statin therapy use must be documented in the current medication list • Statin therapy use is considered active for the measurement period if it is active during any denominator-eligible encounter (see "Denominator guidance for encounter," below) • ONLY statin therapy meets measure numerator criteria (NOT other cholesterol-lowering medications) • Prescription or order does NOT need to be linked to an encounter or visit; may be called in to the pharmacy • Statin medication samples provided to patients can be documented as current statin therapy if documented in the medication list in health/medical record • Patients who meet the denominator criteria for inclusion but are not using statin therapy will NOT meet performance for this measure. • Adherence is not calculated in this measure

Risk calculator guidance:
To identify risk category (see "Denominator guidance," below), use ICD-9-CM or ICD-10-CM diagnosis codes, CPT, HCPCS or LOINC codes, and patient demographics to identify patients who are included in the denominator.

Denominator guidance:
The denominator covers three distinct populations. Use the following process to prevent counting patients more than once.

Denominator Population 1: Patients ages >=21 years at the beginning of the measurement period with clinical ASCVD

–If YES, patient meets Denominator Population 1 risk category
–If NO, screen for next risk category

Denominator Population 2: Patients ages >= 21 years at the beginning of the measurement period who have ever had a fasting or direct laboratory result of LDL-C >= 190 mg/dL

– If YES, patient meets Denominator Population 2 risk category
– If NO, screen for next risk category

Denominator Population 3: Patients ages 40 to 75 years at the beginning of the measurement period with Type 1 or Type 2 diabetes and with an LDL-C result of 70–189 mg/dL recorded as the highest fasting or direct laboratory test result in the measurement year or during the two years prior to the beginning of the measurement period

– If YES, patient meets Denominator Population 3 risk category
– If NO, patient does NOT meet denominator criteria and is NOT eligible for measure inclusion

Denominator guidance for encounter:
In order for the patient to be included in the denominator, the patient must have ONE denominator-eligible visit, defined as follows:

– Outpatient encounter visit type: encounter performed: initial or established office visit, face-to-face interaction, preventive care services, or annual wellness visit
– Exclude inpatient encounter and observation status encounters

LDL–C Laboratory test result options:
The measure can be reported for all patients with a documented fasting or direct LDL-C level recorded as follows:

To meet Denominator Population 1:
There is no required LDL-C result

To meet Denominator Population 2:
If a patient has ANY previous fasting or direct laboratory result of LDL-C >= 190 mg/dL, report the highest value >= 190 mg/dL.

To meet Denominator Population 3:
If a patient has more than one LDL-C result during the measurement period or during the two years before the start of the measurement period, report the highest level recorded during either time.

Intensity of statin therapy in primary and secondary prevention:

	The expert panel of the 2013 ACC/AHA Guidelines (Stone et al. 2013) defines recommended intensity of statin therapy on the basis of the average expected LDL-C response to specific statin and dose. Although intensity of statin therapy is important in managing cholesterol, this measure assesses prescription of ANY statin therapy, irrespective of intensity. Assessment of appropriate intensity and dosage documentation added too much complexity to allow inclusion of statin therapy intensity in the measure at this time. **Lifestyle modification coaching:** A healthy lifestyle is important for the prevention of cardiovascular disease, and coaching may help patients achieve improved outcomes. However, lifestyle modification monitoring and documentation added too much complexity to allow its inclusion in the measure at this time.
Transmission Format	TBD
Initial Patient Population	All patients age 21 years or older at the beginning of the measurement period with a patient encounter during the measurement period.
Denominator	All patients who meet one or more of the following criteria (considered at "high risk" for cardiovascular events, under ATP IV guidelines): *Denominator Population 1*: Patients ages >= 21 years at the beginning of the measurement period with clinical ASCVD diagnosis *Denominator Population 2:* Patients ages >= 21 years at the beginning of the measurement period who have ever had a fasting or direct laboratory result of LDL-C >= 190 mg/dL *Denominator Population 3:* Patients ages 40 to 75 years at the beginning of the measurement period with Type 1 or Type 2 diabetes and with an LDL-C result of 70–189 mg/dL recorded as the highest fasting or direct laboratory test result in the measurement year or during the two years prior to the beginning of the measurement period
Denominator Exclusions	None
Numerator	Patients who are statin therapy users during the measurement period or who receive an order (prescription) to receive statin therapy at any point during the measurement period
Numerator Exclusions	None
Denominator Exceptions	• Patients with adverse effect, allergy, or intolerance to statin medication • Patients who have an active diagnosis of pregnancy or who are breastfeeding • Patients who are receiving palliative care • Patients with active liver disease or hepatic disease or insufficiency • Patients with end-stage renal disease (ESRD) • Patients with diabetes who have a fasting or direct LDL-C laboratory test result < 70 mg/dL and are not taking statin therapy
Measure Population	Not applicable
Measure Observations	Not applicable
Supplemental Data Elements	For every patient evaluated by this measure also identify payer, race, ethnicity, and sex.