



## MASSACHUSETTS

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### Medical Policy

## High-Sensitivity C-Reactive Protein

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### Policy Number: 032

BCBSA Reference Number: NA

NCD/LCD: N/A

### Related Policies

None

### Policy<sup>1</sup>

#### **Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity Medicare HMO Blue<sup>SM</sup> and Medicare PPO Blue<sup>SM</sup> Members**

Measurement of high sensitivity C-reactive protein (hsCRP) for assessment of coronary artery disease risk may be **MEDICALLY NECESSARY** in patients who meet all the following criteria:

- The patient must have undergone previous traditional risk assessment\* and been found to have a 10 year risk of cardiovascular heart disease (CHD) between 10-20% (intermediate risk), AND
- The test is performed in patients considered to be metabolically stable and without obvious inflammatory or infectious conditions, AND
- When the test is performed twice in a twelve month period.

\* Traditional cardiac risk assessment should consider: Patient gender, age, total cholesterol, HDL cholesterol, systolic blood pressure, smoking status, and personal and family medical history.

Measurement of high sensitivity C-reactive protein (hsCRP) for assessment of coronary artery disease risk is considered **NOT MEDICALLY NECESSARY** in all other situations including, but not limited to:

- Patients already identified as high risk, or
- Patients with established coronary artery disease, or
- Serial testing to monitor therapy; or
- Screening asymptomatic individuals among the general population.

### Prior Authorization Information

Pre-service approval is required for all inpatient services for all products.

See below for situations where prior authorization may be required or may not be required for outpatient services.

Yes indicates that prior authorization is required.  
 No indicates that prior authorization is not required.  
 N/A indicates that this service is primarily performed in an inpatient setting.

**Outpatient**

<b>Commercial Managed Care (HMO and POS)</b>	No
<b>Commercial PPO and Indemnity</b>	No
<b>Medicare HMO Blue<sup>SM</sup></b>	No
<b>Medicare PPO Blue<sup>SM</sup></b>	No

**CPT Codes / HCPCS Codes / ICD Codes**

*Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.*

*Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.*

*The following codes are included below for informational purposes only; this is not an all-inclusive list.*

**The above medical necessity criteria MUST be met for the following codes to be covered for Commercial Members: Managed Care (HMO and POS), PPO, Indemnity, Medicare HMO Blue and Medicare PPO Blue:**

**CPT Codes**

<b>CPT codes:</b>	<b>Code Description</b>
86141	C-reactive protein; high sensitivity (hsCRP)

**The following ICD Diagnosis Codes are considered medically necessary when submitted with the CPT code above if medical necessity criteria are met:**

**ICD-10 Diagnosis Codes**

<b>ICD-10-CM-codes:</b>	<b>Code Description</b>
E10.10	Type 1 diabetes mellitus with ketoacidosis without coma
E10.11	Type 1 diabetes mellitus with ketoacidosis with coma
E10.21	Type 1 diabetes mellitus with diabetic nephropathy
E10.22	Type 1 diabetes mellitus with diabetic chronic kidney disease
E10.29	Type 1 diabetes mellitus with other diabetic kidney complication
E10.311	Type 1 diabetes mellitus with unspecified diabetic retinopathy with macular edema
E10.319	Type 1 diabetes mellitus with unspecified diabetic retinopathy without macular edema
E10.321	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema
E10.329	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema
E10.331	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema
E10.339	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema

E10.341	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema
E10.349	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema
E10.351	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema
E10.359	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema
E10.36	Type 1 diabetes mellitus with diabetic cataract
E10.39	Type 1 diabetes mellitus with other diabetic ophthalmic complication
E10.40	Type 1 diabetes mellitus with diabetic neuropathy, unspecified
E10.41	Type 1 diabetes mellitus with diabetic mononeuropathy
E10.42	Type 1 diabetes mellitus with diabetic polyneuropathy
E10.43	Type 1 diabetes mellitus with diabetic autonomic (poly)neuropathy
E10.44	Type 1 diabetes mellitus with diabetic amyotrophy
E10.49	Type 1 diabetes mellitus with other diabetic neurological complication
E10.51	Type 1 diabetes mellitus with diabetic peripheral angiopathy without gangrene
E10.52	Type 1 diabetes mellitus with diabetic peripheral angiopathy with gangrene
E10.59	Type 1 diabetes mellitus with other circulatory complications
E10.610	Type 1 diabetes mellitus with diabetic neuropathic arthropathy
E10.618	Type 1 diabetes mellitus with other diabetic arthropathy
E10.620	Type 1 diabetes mellitus with diabetic dermatitis
E10.621	Type 1 diabetes mellitus with foot ulcer
E10.622	Type 1 diabetes mellitus with other skin ulcer
E10.628	Type 1 diabetes mellitus with other skin complications
E10.630	Type 1 diabetes mellitus with periodontal disease
E10.638	Type 1 diabetes mellitus with other oral complications
E10.641	Type 1 diabetes mellitus with hypoglycemia with coma
E10.649	Type 1 diabetes mellitus with hypoglycemia without coma
E10.65	Type 1 diabetes mellitus with hyperglycemia
E10.69	Type 1 diabetes mellitus with other specified complication
E10.8	Type 1 diabetes mellitus with unspecified complications
E10.9	Type 1 diabetes mellitus without complications
E11.00	Type 2 diabetes mellitus with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma (NKHHC)
E11.01	Type 2 diabetes mellitus with hyperosmolarity with coma
E11.10	Type 2 diabetes mellitus with ketoacidosis without coma
E11.11	Type 2 diabetes mellitus with ketoacidosis with coma
E11.21	Type 2 diabetes mellitus with diabetic nephropathy
E11.22	Type 2 diabetes mellitus with diabetic chronic kidney disease
E11.29	Type 2 diabetes mellitus with other diabetic kidney complication
E11.311	Type 2 diabetes mellitus with unspecified diabetic retinopathy with macular edema
E11.319	Type 2 diabetes mellitus with unspecified diabetic retinopathy without macular edema
E11.321	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema
E11.329	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema

E11.331	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema
E11.339	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema
E11.341	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema
E11.349	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema
E11.351	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema
E11.359	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema
E11.36	Type 2 diabetes mellitus with diabetic cataract
E11.39	Type 2 diabetes mellitus with other diabetic ophthalmic complication
E11.40	Type 2 diabetes mellitus with diabetic neuropathy, unspecified
E11.41	Type 2 diabetes mellitus with diabetic mononeuropathy
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E11.638	Type 2 diabetes mellitus with other oral complications
E11.641	Type 2 diabetes mellitus with hypoglycemia with coma
E11.649	Type 2 diabetes mellitus with hypoglycemia without coma
E11.65	Type 2 diabetes mellitus with hyperglycemia
E11.69	Type 2 diabetes mellitus with other specified complication
E11.8	Type 2 diabetes mellitus with unspecified complications
E11.9	Type 2 diabetes mellitus without complications
E78.0	Pure hypercholesterolemia
E78.1	Pure hyperglyceridemia
E78.2	Mixed hyperlipidemia
E78.5	Hyperlipidemia, unspecified
F17.210	Nicotine dependence, cigarettes, uncomplicated
F17.218	Nicotine dependence, cigarettes, with other nicotine-induced disorders
F17.219	Nicotine dependence, cigarettes, with unspecified nicotine-induced disorders
I10	Essential (primary) hypertension
R03.0	Elevated blood-pressure reading, without diagnosis of hypertension

## Description

C-reactive protein (CRP) is an acute phase reactant produced by the liver that has long been used to monitor inflammatory processes, such as infection and autoimmune diseases. Recent studies have suggested that low-level chronic inflammation may play a role in atherogenesis, and thus measurement of CRP has been investigated in various settings of cardiovascular disease, i.e., in patients with known cardiovascular disease, in patients with risk factors for cardiovascular disease, and as a general risk assessment tool for cardiovascular disease. To be used as a risk assessment tool, a greater precision at lower levels of CRP is needed such that the range of values collected in epidemiologic studies can be subdivided into quartiles and quintiles; in this way, the data from large epidemiologic studies can be applied to individual patients. Such technologies are collectively known as high sensitivity C-reactive protein (hsCRP).

An example of high-sensitivity C-reactive protein testing for assessment of coronary artery disease risk includes the ELISA test. All measurements of high-sensitivity C-reactive protein for assessment of coronary artery disease risk are considered investigational regardless of the commercial name, the manufacturer or FDA approval status except as noted in the policy statement.

## Summary

The existing observational evidence establishes that CRP is an independent predictor of cardiovascular disease across a wide spectrum of patient populations. The evidence also suggests that using CRP as a component of a risk assessment tool will result in a more accurate cardiac risk prediction. While there is no scientific literature that directly tests the hypothesis that measurement of C-reactive protein to assess CHD risk results in improved patient outcomes, following discussion with local practitioners and a review of the existing literature, BCBSMA has determined that measurement of high sensitivity C-reactive protein (hsCRP) for assessment of coronary artery disease risk in the patients described in the policy statement is medically necessary.

## Policy History

Date	Action
2/2016	Clarified coding language.
8/2015	Added coding language.
11/2011-4/2012	Medical policy ICD 10 remediation: Formatting, editing and coding updates. No changes to policy statements.
4/2011	Reviewed - Medical Policy Group – Cardiology and Pulmonology. No changes to policy statements.
4/2010	Reviewed - Medical Policy Group – Cardiology. No changes to policy statements.
4/2009	Reviewed - Medical Policy Group – Cardiology. No changes to policy statements.
4/2008	Reviewed - Medical Policy Group – Cardiology. No changes to policy statements.
4/2007	Reviewed - Medical Policy Group – Cardiology. No changes to policy statements.

## Information Pertaining to All Blue Cross Blue Shield Medical Policies

Click on any of the following terms to access the relevant information:

[Medical Policy Terms of Use](#)

[Managed Care Guidelines](#)

[Indemnity/PPO Guidelines](#)

[Clinical Exception Process](#)

[Medical Technology Assessment Guidelines](#)

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## Endnotes

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<sup>1</sup> Based on local expert opinion, July 2006.