MASSACHUSETTS

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Medical Policy

Automated Ambulatory Blood Pressure Monitoring for the Diagnosis of Hypertension in Patients with Elevated Office Blood Pressure

Table of Contents

Policy Number: 206

BCBSA Reference Number: 1.01.02
NCD/LCD: National Coverage Determination (NCD) for Ambulatory Blood Pressure Monitoring (20.19)

Related Policies

None

Policy

Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity

Automated ambulatory blood pressure (BP) monitoring over a 24-hour period may be considered **MEDICALLY NECESSARY** for patients with elevated office BP, when performed 1 time to differentiate between "white coat hypertension" and true hypertension, and when the following conditions are met:

- Office BP elevation is in the mild to moderate range (<180/110), not requiring immediate treatment with medications; and
- There is an absence of hypertensive end-organ damage on physical examination and laboratory testing.

All other uses of ambulatory blood pressure monitoring for patients with elevated office BP are considered **INVESTIGATIONAL**, including but not limited to repeated testing in patients with persistently elevated office BP and monitoring of treatment effectiveness.

Medicare HMO Blue℠ and Medicare PPO Blue℠ Members

Medical necessity criteria and coding guidance can be found through the link(s) below.

National Coverage Determinations (NCDs)

National Coverage Determination (NCD) for Ambulatory Blood Pressure Monitoring (20.19)

Note: To review the specific NCD, please remember to click "accept" on the CMS licensing agreement at the bottom of the CMS webpage.

Prior Authorization Information

Inpatient

- For services described in this policy, precertification/preauthorization **IS REQUIRED** for all products if the procedure is performed **inpatient**.

Outpatient

- For services described in this policy, see below for products where prior authorization **might be required** if the procedure is performed **outpatient**.

	Outpatient
Commercial Managed Care (HMO and POS)	Prior authorization is **not required**.
Commercial PPO and Indemnity	Prior authorization is **not required**.
Medicare HMO Blue℠	Prior authorization is **not required**.
Medicare PPO Blue℠	Prior authorization is **not required**.

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, and Indemnity:

CPT Codes

CPT codes:	Code Description
93784	Ambulatory blood pressure monitoring, utilizing report-generating software, automated, worn continuously for 24 hours or longer; including recording, scanning analysis, interpretation and report
93786	Ambulatory blood pressure monitoring, utilizing report-generating software, automated, worn continuously for 24 hours or longer; recording only
93788	Ambulatory blood pressure monitoring, utilizing report-generating software, automated, worn continuously for 24 hours or longer; scanning analysis with report
93790	Ambulatory blood pressure monitoring, utilizing report-generating software, automated, worn continuously for 24 hours or longer; review with interpretation and report
99473	Self-measured blood pressure using a device validated for clinical accuracy; patient education/training and device calibration
99474	Self-measured blood pressure using a device validated for clinical accuracy; separate self-measurements of two readings one minute apart, twice daily over a 30-day period (minimum of 12 readings), collection of data reported by the patient and/or caregiver to the physician or other qualified health care professional, with report of average systolic and diastolic pressures and subsequent communication of a treatment plan to the patient

Description

Typically done over a 24-hour period with a fully automated device, ambulatory blood pressure monitoring (ABPM) provides more detailed blood pressure (BP) information than readings typically obtained during

office visits. The greater number of readings with ABPM ameliorates the variability of single BP measurements and is more representative of the circadian rhythm of BP. Various BP indexes can be derived from the detailed BP information provided by ABPM, including multiple measure times (e.g., 24 hours, daytime, nighttime) and dipping ratio (i.e., calculated by dividing nighttime by daytime systolic BP). Studies evaluating the comparative clinical utility of the various available ABPM BP indexes have suggested that higher 24-hour and nighttime BP indexes may marginally improve model predictions of greater risk of death and composite cardiovascular events.[2,]

ABPM has a number of potential applications. One of the most common is evaluating suspected white coat hypertension, which is defined as an elevated office BP with normal BP readings outside the physician's office. The etiology of white coat hypertension is poorly understood but may be related to an "alerting" or anxiety reaction associated with visiting the physician's office.

In assessing patients with elevated office BP, ABPM is often intended to identify those with normal ambulatory readings who do not have sustained hypertension. Because this group of patients would otherwise be treated based on office BP readings alone, ABPM could improve outcomes by allowing these patients to avoid unnecessary treatment. However, this assumes patients with white coat hypertension are not at increased risk for cardiovascular events and would not benefit from antihypertensive treatment.

Other uses of ABPM include monitoring patients with established hypertension under treatment; evaluating refractory or resistant BP; evaluating whether symptoms such as lightheadedness correspond with BP changes; evaluating night-time BP; examining diurnal patterns of BP; and other potential uses.

This evidence review does not directly address other uses of ABPM, including its use for the evaluation of "masked" hypertension. Masked hypertension refers to normal BP readings in the office and elevated BP readings outside of the office. This phenomenon has recently received greater attention, with estimates that up to 10% to 20% of individuals may exhibit this pattern.

Summary

Description

Ambulatory blood pressure (BP) monitors (24-hour sphygmomanometers) are portable devices that continually record BP while the patient is involved in daily activities. There are various types of ambulatory monitors; this evidence review addresses fully automated monitors, which inflate and record BP at preprogrammed intervals. Ambulatory blood pressure monitoring (ABPM) has the potential to improve the accuracy of diagnosing hypertension and thus improve the appropriateness of medication treatment.

Summary of Evidence

For individuals with elevated office BP who receive 24-hour automated ABPM, the evidence includes randomized controlled trials, cohort studies, and studies of diagnostic accuracy. Relevant outcomes are test accuracy, other test performance measures, morbid events, and medication use. Data from large prospective cohort studies have established that ABPM correlates more strongly with cardiovascular outcomes than with other methods of BP measurement. Compared directly with other methods, ABPM performed over a 24-hour period has higher sensitivity, specificity, and predictive value for the have an intermediate risk of cardiovascular outcomes compared with normotensive and hypertensive patients. The benefit of medication treatment in these patients is uncertain, and they are at risk of overdiagnosis and over treatment based on office BP measurements alone. Use of ABPM in these patients will improve outcomes by eliminating unnecessary pharmacologic treatment and avoiding adverse events in patients not expected to benefit. The evidence is sufficient to determine that the technology results in a meaningful improvement in the net health outcome.

Policy History

Date	Action
8/2020	BCBSA National medical policy review. Description, summary and references updated. Policy statement(s) unchanged.
1/2020	Clarified coding information.
8/2019	BCBSA National medical policy review. Description, summary and references updated. Clarified coding information. Policy statement(s) unchanged.
7/2018	New references added from BCBSA National medical policy. Background and summary clarified.
7/2017	New references added from BCBSA National medical policy.
8/2016	New references added from BCBSA National medical policy.
11/2015	Clarified coding information.
3/2015	New references added from BCBSA National medical policy.
6/2014	Updated Coding section with ICD10 procedure and diagnosis codes. Effective 10/2015.
4/2014	New references added from BCBSA National medical policy.
11/2013	New medically necessary indications described. Effective 11/1/2013.
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.

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

References

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