Medical Coverage Policy | Ambulatory Blood Pressure Monitoring (ABPM)

EFFECTIVE DATE: 12|01|2016
POLICY LAST UPDATED: 10/05/2022

OVERVIEW

Ambulatory blood pressure monitors (24-hour sphygmomanometers) are portable devices that continually record blood pressure while the patient is involved in daily activities. There are various types of ambulatory monitors. This policy addresses fully automated monitors, which inflate and record blood pressures (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.

This policy is applicable to Commercial Products only. For Medicare Advantage Plans, see related policy section.

MEDICAL CRITERIA

Not applicable

PRIOR AUTHORIZATION

Not applicable

POLICY STATEMENT

Commercial Products

ABPM over a 24-hour period may be considered medically necessary for individuals 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 mm Hg), 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 ABPM for individuals with elevated office BP are considered investigational, including but not limited to repeated testing in individuals with persistently elevated office BP and monitoring of treatment effectiveness.

COVERAGE

Benefits may vary between groups and contracts. Please refer to the appropriate Benefit Booklet, Evidence of Coverage or Subscriber Agreement for applicable not medically necessary benefits/coverage.

BACKGROUND

Typically done over a 24-hour period with a fully automated device, ABPM provides more detailed 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.

There are a number of potential applications of ABPM. One of the most common is evaluating suspected "white-coat hypertension" (WCH), which is defined as an elevated office BP with normal blood pressure readings outside the physician's office. The etiology of WCH 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 patients with normal ambulatory readings who do not have sustained hypertension. Since 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 WCH are not at increased risk for cardiovascular events and would not benefit from antihypertensive treatment.

For pediatric patients, the principles of ABPM used to confirm a diagnosis of hypertension are the same as in adults, with the following special considerations per 2022 American Heart Association guidelines on ABPM in children and adolescents. A device should be selected that is appropriate for use in pediatric patients, including the use of a cuff size appropriate to the child's size. Threshold levels for the diagnosis of hypertension should be based on pediatric normative data, which use gender-and height-specific values derived from large pediatric populations. The American Heart Association has recommendations and considerations concerning the classification of hypertension in pediatric patients using clinic and ABPM.

Regulatory Status
Many ABPMs have been cleared for marketing by the U.S. Food and Drug Administration through the 510(k) process. As an example of a Food and Drug Administration indication, the Welch Allyn Ambulatory Blood Pressure Monitoring 6100 is indicated "as an aid or adjunct to diagnosis and treatment when it is necessary to measure adult or pediatric patients' systolic and diastolic blood pressures over an extended period of time."

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 diagnosis of hypertension than office or home BP measurements. Substantial percentages of patients with elevated office BP have normal BP on ABPM. Prospective cohort studies have reported that patients with white coat hypertension 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 automated 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 an improvement in the net health outcome.

CODING

Commercial Products
The following codes are covered when filed with an ICD-10 diagnosis code listed below:

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

ICD-10 Diagnosis Codes that may support medical necessity:
I10
I11.0-11.9
R03.0
Z01.30-Z01.31

Commercial Products
The following code is not covered:
A4670 Automatic blood pressure monitor

RELATED POLICIES
Medicare Advantage Plans National and Local Coverage Determinations

PUBLISHED
Provider Update, December 2022
Provider Update, September 2021
Provider Update, August 2020
Provider Update, November 2019
Provider Update, November/December 2018

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