



BlueCross BlueShield of Louisiana

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Ambulatory Blood Pressure Monitoring Archived Medical Policy

Archived medical policies are no longer subject to periodic review, are maintained for reference, and may be returned to active status if the need is identified.

Policy # 00001

Original Effective Date: 7/18/96

Archive Date: 9/27/04

Applies to all products administered or underwritten by Blue Cross and Blue Shield of Louisiana and its subsidiary, HMO Louisiana, Inc. (collectively referred to as the "Company"), except when changed by contract. Medical technology is constantly evolving, and we reserve the right to review and update Medical Policy periodically.

Policy/Guidelines

Based on review of available data, the Company may consider ambulatory blood pressure monitoring (ABPM) to

- Benefits are available in the member's contract/certificate, and
- Medical necessity criteria and guidelines are met.

Patient Selection Criteria

- Borderline hypertension with target organ damage; or
- Evaluation of drug resistance; or
- Episodic hypertension; or
- Hypotensive symptoms associated with antihypertensive medications; or
- "Office" or "white coat" hypertension*; or
- Evaluation of blood pressure changes in nocturnal angina and pulmonary congestion; or
- Autonomic dysfunction; or
- Carotid sinus syncope and pacemaker syndromes; or
- The physician can provide supporting documentation in the clinical or medical record to substantiate the indications for and appropriateness of the requested monitoring.

* Patients with persistently elevated blood pressures > 140/90mm during standardized office visits and normal self-measurements elsewhere.

Background/Overview

Ambulatory blood pressure monitors (i.e., 24-hour sphygmomanometers) are portable devices that record blood pressure while the patient is involved in daily activities. There are several types of monitors, including:

- fully automated, which inflate at preprogrammed intervals;
- semi-automated, which are patient activated;
- transtelephonic, which allow use of the telephone to transmit measured automatic digital readings to a computer-assisted receiver;
- intra-arterial, which are used exclusively as research tools due to risk of infection or arterial damage and tissue necrosis.

ABPM, typically done over a 24-hour period with a fully automated monitor, provides the physician with more detailed information on blood pressure. The greater number of readings with ABPM is more representative of the normal circadian rhythm of blood pressure, as compared to the limited number of readings with typical, casual office measurement.

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There are a number of potential applications of ABPM. One of the most common is for evaluation of suspected "white-coat hypertension." White-coat hypertension is defined as an elevated office blood pressure with normal blood pressure 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 visits to the physician's office.

In evaluating patients who have elevated office blood pressure, ABPM is often intended to identify patients with normal ABP readings who, therefore, do not have sustained hypertension. Since this group of patients would otherwise be treated based on office blood pressure readings alone, ABPM could improve outcomes by allowing these patients to avoid unnecessary treatment. Health outcomes will be improved if these patients are not at increased risk for adverse cardiovascular events and do not benefit from treatment with antihypertensive medications.

Many ambulatory blood pressure monitors have received clearance to market through the U.S. Food and Drug Administration (FDA) 510(k) marketing clearance process. As an example of a FDA indication for use, the Welch Allyn ABPM 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. The system is only for measurement, recording, and display. It makes no diagnosis."

Rationale/Source

Recommendations and policy statements made by the National High Blood Pressure Education Program, the American College of Cardiology, and Medicare are reviewed below.

National High Blood Pressure Education Program.

This 1990 document outlines a variety of clinical situations in which ambulatory measurements of blood pressure may be useful.

- Borderline hypertension with evidence of target organ damage (i.e., left ventricular hypertrophy, hypertensive retinopathy). Ambulatory pressure reading may be used to confirm or refute high blood pressure as the etiology.
- Resistant hypertension, diagnosed when multiple antihypertensive medications fail to control high blood pressure. Ambulatory recording can be used to determine if the office reading truly represents resistance to treatment.
- Episodic hypertension, raising the possibility of a pheochromocytoma or anxiety syndromes. Both of these evaluated with a 24-hour recording of blood pressure.
- Transient hypotension from antihypertensive drug therapy. This may be difficult to diagnose in the office, ambulatory recordings may allow recognition and avoid overtreatment.
- "White coat hypertension" in patients with elevated office BP. This situation presents a treatment dilemma. Ambulatory blood pressure reading is an objective method of evaluation of these patients, and may be useful for deciding whether to treat with medications.

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American College of Cardiology.

In 1990, the American College of Cardiology issued a policy statement on ABPM that identified the technology as “investigational,” in part based on technical concerns regarding the accuracy of the devices. The position statement was revised in 1994, stating that the previous concerns had been addressed. Specifically, manufacturing standards had been developed, leading the American College of Cardiology to conclude that “ambulatory blood pressure monitoring has become a mature, clinically applicable technology.”

A separate indication for ABPM is its use to titrate drug therapy in patients already diagnosed with hypertension. In 1997, a randomized controlled trial was published that addressed this issue. Antihypertensive drug therapy was adjusted in a stepwise fashion based either on the average daytime diastolic blood pressure, as calculated from ABPM, or on the average of 3 readings performed in the office. At the end of the study, a significantly higher percentage of patients in the ambulatory blood pressure group were able to discontinue drug therapy compared to those in the conventionally measured blood pressure group. As pointed out in an accompanying editorial, the same results may be obtained by patient self-monitoring.

Medicare

Medicare considers ABPM eligible for coverage as follows: “At this point in time, ABPM will be covered for those patients with suspected WCH. Suspected WCH will be defined as office BP >140/90 mm Hg on at least three separate clinic/office visits with two separate measurements made at each visit. In addition, there should be at least two BP measurements taken outside the office which are <140/90 mm Hg. There should be no evidence of end-organ damage. The information obtained by ABPM is necessary in order to determine the appropriate management of the patient.”

References

1. Blue Cross Blue Shield Association, Medical Policy Reference Manual, “Automated Ambulatory Blood Pressure Monitoring for the Diagnosis of Hypertension in Patients with Elevated Office Blood Pressure”, 1.01.02, 3:2004.
2. CMS Decision Memorandum <http://www.cms.hhs.gov/mcd/viewdecisionmemo.asp?id=8> retrieved 2/24/02

Policy History

Original Effective Date:	07/18/96
08/16/2001	Medical Policy Committee review
06/24/2002	Format revision No substance change to policy
08/19/2003	Medical Policy Committee review
08/25/2003	Managed Care Advisory Council approval
08/31/2004	Medical Director review
09/21/2004	Medical Policy Committee review Format revision
09/27/2004	Managed Care Advisory Council approval to archive policy
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