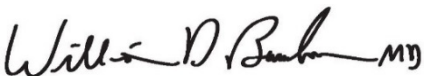


**Prior Authorization Review Panel
MCO Policy Submission**

A separate copy of this form must accompany each policy submitted for review.
Policies submitted without this form will not be considered for review.

Plan: Keystone First	Submission Date: October 30, 2019
Policy Number: CCP.1266	Effective Date: January 1, 2017 Revision Date: October 2, 2018
Policy Name: Home monitoring of blood pressure and weight	
Type of Submission – Check all that apply: <input type="checkbox"/> New Policy <input type="checkbox"/> Revised Policy* <input checked="" type="checkbox"/> Annual Review – No Revisions <input type="checkbox"/> Statewide PDL	
*All revisions to the policy <u>must</u> be highlighted using track changes throughout the document. Please provide any clarifying information for the policy below: No revisions have been made since last submission.	
Name of Authorized Individual (Please type or print): William D. Burnham, MD	Signature of Authorized Individual: 



Keystone First

Coverage by Vista Health Plan,
an independent licensee of the Blue Cross and Blue Shield Association.

Clinical Policy Title: Home monitoring of blood pressure and weight

Clinical Policy Number: CCP.1266

Effective Date: January 1, 2017
Initial Review Date: October 19, 2016
Most Recent Review Date: October 2, 2018
Next Review Date: October 2020

Policy contains:

- Blood pressure.
- Heart failure.
- Scale (body weight).

Related policies:

CCP.1108 Ambulatory blood pressure monitoring

ABOUT THIS POLICY: Keystone First has developed clinical policies to assist with making coverage determinations. Keystone First's clinical policies are based on guidelines from established industry sources, such as the Centers for Medicare & Medicaid Services (CMS), state regulatory agencies, the American Medical Association (AMA), medical specialty professional societies, and peer-reviewed professional literature. These clinical policies along with other sources, such as plan benefits and state and federal laws and regulatory requirements, including any state- or plan-specific definition of "medically necessary," and the specific facts of the particular situation are considered by Keystone First when making coverage determinations. In the event of conflict between this clinical policy and plan benefits and/or state or federal laws and/or regulatory requirements, the plan benefits and/or state and federal laws and/or regulatory requirements shall control. Keystone First's clinical policies are for informational purposes only and not intended as medical advice or to direct treatment. Physicians and other health care providers are solely responsible for the treatment decisions for their patients. Keystone First's clinical policies are reflective of evidence-based medicine at the time of review. As medical science evolves, Keystone First will update its clinical policies as necessary. Keystone First's clinical policies are not guarantees of payment.

Coverage policy

Keystone First considers the use of home monitoring of blood pressure and body weight to be clinically proven and, therefore, medically necessary with the following conditions (Chaudhry, 2007; Cleland, 2005).

- Definitive diagnosis of heart failure and /or uncontrolled hypertension has been established.
- At least two documented, separate blood pressure measurements taken in the hospital and/or in the physician's office are >140/90 mm Hg.
- At risk for re-admission for heart failure and/or hypertension.

Keystone First considers the use of home monitoring of blood pressure and weight to be clinically proven and, therefore, medically necessary when the following criteria are met (Mallick, 2009; Riegel, 2009):

- Member is under the care of primary care physician or specialist to assess, evaluate and intervene one week post discharge and as prescribed by the primary care physician.
- To improve and increase self-management :
- Member is educated and trained by professional:
 - To monitor and record weight in log as ordered by the primary care physician or specialist.
 - To monitor and record blood pressure in log.
- Use of validated instruments and systematic protocols as prescribed by the primary care physician or specialist.

Limitations:

All other uses of home monitoring for blood pressure and body weight are not medically necessary.

Alternative covered services:

Home care services.

Background

Heart failure is a complex clinical syndrome resulting from any structural or functional cardiac disorder that impairs the ability of the ventricle to fill with or eject blood. The primary manifestations of the syndrome are dyspnea and fatigue, fluid retention, or both. Optimal management requires continuity of care and carefully managed transitions from the inpatient to the outpatient setting. More than a quarter (27 percent) of Medicare beneficiaries discharged with a diagnosis of heart failure are rehospitalized within 30 days, and about 37 percent of these hospitalizations are due to heart failure (Gheorghiade, 2013). Assessment and tracking of heart failure symptoms (fluid status, via daily weight, and functional status) is important to identify clinical deterioration and avoid inpatient episodes. Management of underlying conditions and comorbidities (e.g., hypertension, coronary artery disease, diabetes) has been shown to control symptoms and help prevent disease progression.

Hypertension is a major independent risk factor for coronary artery disease, stroke, heart failure, and renal failure. A third (33.5 percent) of Americans over age 20 had hypertension in 2013 to 2014 (National Center for Health Statistics, 2016). Nearly half (46.5 percent) had uncontrolled high blood pressure. Extended hypertension control is integral to reducing heart failure incidence and progression. Home blood pressure monitoring, a convenient and inexpensive way to monitor blood pressure in hypertensive persons, has been shown to assist in the control of hypertension (Mallick, 2009). Measurements can be taken several times in a day, and over an extended period of time. Home measurement eliminates the bias introduced by “white coat” or “isolated office” hypertension,” an elevated reading taken only in a clinical setting when other daytime ambulatory readings are normal. Home monitoring is more predictive of cardiovascular events and mortality than are measurements taken in clinical settings. Additionally, it allows the detection

of “masked hypertension,” the phenomenon of having normal blood pressure in the clinic setting but abnormal readings at home. Patients should be trained in how best to take and log the measurements.

The American Heart Association defines self-care as a “naturalistic decision-making process that patients use in the choice of behaviors that maintain physiological stability (symptom monitoring and treatment adherence) and the response to symptoms when they occur” (Riegel, 2009). Self-care includes multiple components, such as adhering to medications, following diet and exercise recommendations, and actively monitoring for congestion. Self-management extends this concept to the self-adjustment of the treatment regimen. Self-management is therefore a complex process, requiring that patients recognize a change in symptoms (e.g., increased fluid retention), evaluate the symptom, decide on an action, implement a treatment strategy (e.g., an additional diuretic dose), and evaluate the response to therapy. Self-care and self-management behaviors are ultimately the responsibilities of the patient, even if they are frequently seen in the office or telephoned at home. Barriers to effective self-care and management on the patient level include low health literacy, anxiety, depression, treatment requirements of comorbidities, life stage (e.g., adolescence, advanced age), impaired cognition, and sleep disturbances. On the healthcare system level, barriers to effective patient self-care and management include deficiencies in the self-care education provided to patients, inadequate reimbursement for patient education and for complexity of disease, multiple providers, and inadequate training in communicating self-care skills.

Searches

Keystone First searched PubMed and the databases of:

- UK National Health Services Centre for Reviews and Dissemination.
- Agency for Healthcare Research and Quality’s National Guideline Clearinghouse and other evidence-based practice centers.
- The Centers for Medicare & Medicaid Services.

We conducted searches on August 9, 2018. Search terms were: “blood pressure,” “home monitoring,” “heart failure,” “hypertension,” and “body weight.”

We included:

- **Systematic reviews**, which pool results from multiple studies to achieve larger sample sizes and greater precision of effect estimation than in smaller primary studies. Systematic reviews use predetermined transparent methods to minimize bias, effectively treating the review as a scientific endeavor, and are thus rated highest in evidence-grading hierarchies.
- **Guidelines based on systematic reviews.**
- **Economic analyses**, such as cost-effectiveness, and benefit or utility studies (but not simple cost studies), reporting both costs and outcomes — sometimes referred to as efficiency studies — which also rank near the top of evidence hierarchies.

Findings

A review of the literature on patient self-care in heart failure found that multiple individual/patient-level factors as well as external factors influence one’s ability to perform self-care (Attaallah, 2016). Additionally, self-care is much harder for older adults due to impaired sight, hearing, and cognition. Interventions to increase individuals’ ability to perform self-care are an important area of investigation. The use of patient education, case management, and telemonitoring show positive outcomes. However, outcome measures have been varied, with few focusing on specific self-care behaviors, and measurement of individual characteristics at baseline and endpoint has not been sufficiently rigorous. While several interventions resulted in improvements in blood pressure control, patient ability to monitor symptoms, and patient knowledge and cognition regarding heart failure, this area of research remains investigational.

While it is understood that increased fluid retention may precede rehospitalization in heart failure, about half of patients do not experience significant weight gain (i.e. less than two pounds) before being rehospitalized, and many do not lose weight during a hospitalization (Ambrosy, 2017; Chaudhry, 2007). This phenomenon is not well understood. The exploration of blood volume redistribution as a possible contributing factor to congestion in heart failure is a growing body of research (Fudim, 2017).

Policy updates:

In 2017, we added one reference to the summary of clinical evidence, and ten publications to the reference list.

We did not identify any additional publications in 2018. Policy ID changed from 17.01.06 to CCP.1266.

Summary of clinical evidence:

Citation	Content, Methods, Recommendations
<p>Attaallah (2016)</p> <p>Self-care among older adults with heart failure</p>	<p>Key points:</p> <ul style="list-style-type: none"> • This literature review included 28 studies of self-care among the older population with heart failure. Self-care in heart failure is defined as behaviors that are used to maintain physiological stability, monitoring of symptoms, and adherence to treatment. Older adults may face particular challenges in self-care. • Capacity for self-care in heart failure is considered to be modifiable through supportive training. This review examined studies that explored factors potentially influencing patient ability to self-care, as well as interventions to improve self-care. • Interventions included in this literature include patient education and support, case management, and telemonitoring. While many of the included studies had promising results, their numbers were small, and outcome measures were not comparable. Additional research is needed.
<p>Bui (2012)</p> <p>Home monitoring for heart failure management</p>	<p>Key points:</p> <ul style="list-style-type: none"> • Home monitoring offers substantial potential for the management of persons with heart failure. There are many areas of potential investigation, including the populations that will benefit the most from home monitoring.

Citation	Content, Methods, Recommendations
	<ul style="list-style-type: none"> • The concept of self-management in heart failure extends the concept of self-care (monitoring symptoms, and adherence to medication, dietary and exercise recommendations) to the patient self-adjusting the treatment regimen once they recognize a symptom (e.g. fluid retention). • Checking daily weight is integral to self-management for heart failure. Blood pressure is one of many other potential measures for monitoring.
<p>Scolaro KL et al (2005)</p> <p>Devices for ambulatory and home monitoring of blood pressure, lipids, coagulation, and weight management, part 1.</p>	<p>Key points:</p> <ul style="list-style-type: none"> • Home monitoring and ambulatory monitoring of blood pressure, cholesterol, coagulation, and weight management (including devices for assessing overweight and obese patients, heart rate monitors, and pedometers) have been shown to be convenient for clinicians and patients. • It appears that patients who participate in ambulatory and home monitoring are more active in addressing their health and may better adhere to recommended regimens. Ambulatory and home monitoring can provide clinicians with reliable readings to assist in future therapeutic decisions.

References

Professional society guidelines/other:

National Center for Health Statistics. Table 53. Selected health conditions and risk factors, by age: United States, selected years 1988–1994 through 2013–2014. In *Health, United States, 2016: With Chartbook on Long-term Trends in Health* In. Hyattsville, MD: Centers for Disease Control and Prevention, U.S. Department of Health and Human Services; 2017. <https://www.cdc.gov/nchs/data/hus/hus16.pdf> . Accessed August 9, 2018.

Yancy CW, Jessup M, Bozkurt B, et al. 2016 ACC/AHA/HFSA focused update on new pharmacological therapy for heart failure: an update of the 2013 ACCF/AHA guideline for the management of heart failure: a report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines and the Heart Failure Society of America. *J Am Coll Cardiol*. 2016;68:1476-1488. doi: [10.1016/j.jacc.2016.05.011](https://doi.org/10.1016/j.jacc.2016.05.011).

Yancy CW, Jessup M, Bozkurt B, et al. 2017 ACC/AHA/HFSA focused update of the 2013 ACCF/AHA guideline for the management of heart failure: a report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines and the Heart Failure Society of America. *J Am Coll Cardiol*. 2017;70:776-803. doi: 10.1016/j.jacc.2017.04.025.

Peer-reviewed references:

Ambrosy AP, Fonarow GC, Butler J, et al. The global health and economic burden of hospitalizations for heart failure: Lessons learned from hospitalized heart failure registries. *J Am Coll Cardiol*. 2014;63(12):1123-1133. doi: 10.1016/j.jacc.2013.11.053

Attaallah S, Klymko K, Hopp FP. Self-care among older adults with heart failure. *Gerontol Geriatr Med*. 2016;2:2333721416684013. doi:10.1177/2333721416684013.

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Gheorghide M, Vaduganathan M, Fonarow GC, Bonow RO. Rehospitalization for heart failure: problems and perspectives. *J Am Coll Cardiol*. 2013;61(4):391-403. doi: 10.1016/j.jacc.2012.09.038.

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Mallick S, Kanthety R, Rahman M. Home blood pressure monitoring in clinical practice: a review. *Am J Med*. 2009;122(9):803-10. doi: 10.1016/j.amjmed.2009.02.028.

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Scolaro KL, Stamm PL, Lloyd KB. Devices for ambulatory and home monitoring of blood pressure, lipids, coagulation, and weight management, part 1. *Am J Health Syst Pharm*. 2005;62(17):1802-12. doi: 10.2146/ajhp040346.p1.

Tran B, Fonarow GC. Gaps in the heart failure guidelines. *Card Fail Rev*. 2015;1(1):50-55. doi: 10.15420/CFR.2015.01.01.50.

National Coverage Determinations:

No National Coverage Determinations identified as of the writing of this policy.

Local Coverage Determinations:

No Local Coverage Determinations identified as of the writing of this policy.

Commonly submitted codes

Below are the most commonly submitted codes for the service(s)/item(s) subject to this policy. This is not an exhaustive list of codes. Providers are expected to consult the appropriate coding manuals and bill accordingly.

CPT Codes	Description	Comments
N/A	None	

ICD-10 Codes	Description	Comments
I10	Hypertensive Heart Disease	
I50. - I50.9	Heart Failure	

HCPCS Level II Codes	Description	Comments
A4670	Automatic blood pressure monitor	