



NHS MEDICAL POLICY

Implantable Heart Failure Monitor Procedure 2019-001

An Implantable Heart Failure Monitor may be indicated when ALL the following are present:

1	The patient is an adult at least 18 years of age.
2	NYHA class III heart failure has been diagnosed by a cardiologist. (New York Heart Association class III = marked limitation of physical activity, symptomatic with mild exertion)
3	The provider has documented that medical management of heart failure has been optimized with appropriate medications. The provider has documented that the patient has complied with pharmacotherapy for a minimum of 6 months. These medications may include beta-blockers, angiotensin converting enzyme (ACE) inhibitors, angiotensin II receptor blockers (ARB) and/or Entresto.
4	The patient has participated with recommended lifestyle modifications (diet, exercise, and smoking cessation) and attended scheduled provider appointments.
5	The patient has participated in home management, including using a scale to obtain weights with weight-based interventions by the managing provider.
6	If diabetic, the patient's glycemic control has been optimized.
7	If obstructive sleep apnea is suspected or present, the patient has been evaluated and treated.
8	2 or more hospitalizations for heart failure have occurred in the past year despite compliance with optimal medical therapy (items 2 – 6) and follow up.
9	If the patient's BMI is 35 or more, the patient's chest circumference at the axillary level must be less than 165 cm. <i>(If the patient's BMI is under 35, a chest circumference measurement is not required.)</i>

10	There are no clinical contraindications to undergoing a right heart catheterization procedure. <i>[Examples of contraindications may include congenital heart disease or mechanical right (tricuspid or pulmonary) heart valve.]</i>
11	One of the following must be documented: <ul style="list-style-type: none"> • The patient’s pulmonary artery branch diameter must be 7 – 15 mm, as measured during the right heart catheterization procedure. • The cardiologist has documented a reasonable belief that the pulmonary artery size is adequate and plans to measure it concurrently.
12	The patient has no active infection.
13	The patient is not immunosuppressed or immunocompromised. (e.g. use of glucocorticoids, immunosuppressing drugs for organ transplant, biologic agents that increase risk of infection, etc.)
14	The patient has no history of recurrent venous thromboembolism.
15	The patient’s glomerular filtration rate is at least 25 ml/min or higher and the patient does not receive dialysis.
16	The patient has had no major cardiovascular event (myocardial infarction or stroke) in the previous 3 months.
17	The provider has documented that the patient is not likely to undergo cardiac resynchronization therapy or evaluation for heart transplant or LVAD implantation within the next 12 months.
18	The patient has no other life limiting comorbidities like cancer. The patient has an expected life span of at least one year.
19	The patient has no allergy, hypersensitivity, or contraindication to aspirin or clopidogrel.
20	The patient has no coagulation disorder.
21	The patient has participated in an approved educational session about the device.
22	The patient is enrolled in an outpatient heart failure program and agrees to continue with this follow up monitoring and care.

SOURCES

1. Abraham WT, et al. CHAMPION Trial Study Group. Wireless pulmonary artery haemodynamic monitoring in chronic heart failure: a randomised controlled trial. *Lancet*. 2011 Feb 19; 377(9766):658-66. ClinicalTrials.gov was accessed Sep 6, 2019: Identifier: NCT00531661
2. Desai AS, et al. Ambulatory Hemodynamic Monitoring Reduces Heart Failure Hospitalizations in “Real-World” Clinical Practice, *JACC* Vol. 69, No. 19, May 16, 2017: 2357-65.
3. Dhruva SS, et al, Championing Effectiveness before Cost-Effectiveness, *JACC Heart Fail*. 2016 May; 4(5): 376-379.

4. Heywood JT, Jermyn R, Shavelle D, et al. Impact of practice-based management of pulmonary artery pressures in 2000 patients implanted with the CardioMEMS sensor. *Circulation*. 2017;135:1509-1517.
5. Jermyn R, et al. Hemodynamic-guided heart-failure management using a wireless implantable sensor: infrastructure, methods, and results in a community heart failure disease-management program. *Clin Cardiol*. 2017;40:170-176.
6. Loh JP, et al. Overview of the 2011 Food and Drug Administration Circulatory System Devices Panel of the Medical Devices Advisory Committee Meeting on the CardioMEMS Champion Heart Failure Monitoring System. *J Am Coll Cardiol*. 2013 Apr 16;61(15):1571-6.
7. Minhas AM, et al. Does Hemodynamic-Guided Heart Failure Management Reduce Hospitalization? A Systematic Review. *Cureus*. 2017 Apr; 9(4): e1161.
8. Ollendorf DA, et al, California Technology Assessment Forum (CTAF) CardioMEMS HF System...Effectiveness, Value, and Value-Based Price Benchmarks. Dec 1, 2015, Institute for Clinical and Economic Review (ICER), 2015.
9. Schmier JK, et al, Cost-Effectiveness of Remote Cardiac Monitoring with the CardioMEMS Heart Failure System. *Clin Cardio*, Vol. 40, Issue. 7, July 2017: 430-6.

CODE REFERENCE (This may not be a comprehensive list of codes to apply to this policy.)

33289, 93264, 93451, 93568, 93701, 93799, C2624
C9741 was deleted Jan 1, 2019.

POLICY HISTORY/REVISION INFORMATION

Date	Action/Description
12/10/2020	Annual review and approval by UM Committee
12/10/2021	Annual review and approval by UM Committee
12/21/2022	Annual review and approval by UM Committee
12/20/2023	Annual review and approval by UM/QM Committee
12/23/2024	Annual review and approval by UM/QM Committee