



## Ambulatory ECG Monitoring

Last Revision/Review Date: January 16, 2019

P&P # C.6.20

### A. Documentation Required:

1. Documentation of cardiac symptoms necessitating cardiac monitoring.
2. Order from Physician or Advanced Practice Provider (NP or PA).
3. Results and interpretation of a Holter Monitor test, telemetry report from an inpatient stay, and noninvasive (external loop recorders/ ZIO® Patch) monitoring if applicable.

### B. Criteria for Medical Necessity:

1. Cardiac monitoring by external loop recorder (e.g., ZIO® Patch) is considered medically necessary when **ONE** of the following criteria are met:
  - a.) Symptoms are occurring infrequently such that an arrhythmia is unlikely to be documented and diagnosed by a Holter monitor or recent Holter monitoring or 48 hr telemetry was non-diagnostic and the symptoms are consistent with cardiac arrhythmias which include **ONE** of the following:
    - i. Palpitations; **OR**
    - ii. Syncope; **OR**
    - iii. Lightheadedness; **OR**
  - b.) Further cardiac evaluation of the cause of cryptogenic stroke is needed after an initial atrial fibrillation work up including 24-hour Holter monitoring or inpatient telemetry monitoring is negative and the Patient has not had ZIO® Patch monitoring within past 1 year.
2. Initial cardiac monitoring by Implantable loop recorder (e.g., Reveal LINQ™) is medically necessary when **ONE** of the following criteria are met:
  - a) Patient has recurrent, unexplained symptoms consistent with cardiac arrhythmias (palpitations, syncope or lightheadedness) and previous trial of non-invasive ambulatory ECG monitoring/recording (e.g., ZIO® Patch) was not successful in capturing infrequent occurring events **OR** symptoms occur infrequently (e.g., less than once a month), and are unlikely to be captured with noninvasive (external loop recorders/ ZIO® Patch) monitoring.
  - b) Further cardiac evaluation of the cause of cryptogenic stroke is needed after an initial atrial fibrillation, work up including 24-hour Holter monitoring or inpatient telemetry monitoring **AND** noninvasive external loop recorders (e.g., ZIO® Patch) monitoring is negative.

**C. Indications Considered Experimental, Investigational or not Medically Necessary: (Not all inclusive)**

1. Patients treated for atrial fibrillation to evaluate treatment response.
2. Asymptomatic patients.
3. Previous established diagnosis for same symptoms.
4. Patients with diagnosed atrial fibrillation who have been treated with catheter ablation when discontinuation of systemic anticoagulation is being considered.
5. Use of ZIO® Patch in patients with an external cardiac defibrillator or neurostimulator.
6. Use of AliveCor® Heart Monitor (iPhoneECG), Biotronik BioMonitor, Mobile patient management systems (e.g., BodyGuardian® Remote Monitoring System, and iHEART/Kardia Mobile), Self-monitoring ECG technologies or the ViSi Mobile® Monitoring System, Cardio Patch® for ambulatory ECG monitoring/recording, or the Angelmed Guardian Intracardiac Ischemia Monitoring Device.

**CPT/ HCPCS CODES:**

0295T	External electrocardiographic recording for more than 48 hours up to 21 days by continuous rhythm recording and storage; includes recording, scanning analysis with report, review and interpretation
0296T	Recording (includes connection and initial recording)
0297T	Scanning analysis with report
0298T	Review and interpretation
93229	Technical support for connection and patient instructions for use, attended surveillance, analysis and transmission of daily and emergent data reports as prescribed by a physician or other qualified health care professional
33282	Implantation of patient-activated cardiac event recorder

**REFERENCES:**

Al-Khatib SM, et al. 2017 AHA/ACC/HRS Guideline for Management of Patients with Ventricular Arrhythmias and the Prevention of Sudden Cardiac Death. Heart Rhythm (2017), doi: 10.1016/j.hrthm.2017.10.036.

Hayes, Inc. Medical Technology Directory. Implantable cardiac loop recorders for diagnosis and management of syncope in adults. Publication March 10, 2016. Annual review March 5, 2018. Accessed January 4, 2019.

Hayes, Inc. Health Technology Brief. Implantable cardiac loop recorders for detection of atrial fibrillation following cryptogenic stroke. Publication June 15, 2017. Annual review June 21, 2018. Accessed January 4, 2019.

Hayes, Inc. Prognosis Overview. AngelMed Guardian System. Published May 2018. Accessed January 4, 2019.

[https://www.hayesinc.com/subscribers/displaySubscriberArticle.do?articleId=16034&searchStore=%24search\\_type%3Dall%24icd%3D%24keywords%3DAngelMed%24status%3Dall%24page%3D1%24from\\_date%3D%24to\\_date%3D%24report\\_type\\_options%3D%24technology\\_type\\_options%3D%24organ\\_system\\_options%3D%24specialty\\_options%3D%24order%3DasearchRelevance](https://www.hayesinc.com/subscribers/displaySubscriberArticle.do?articleId=16034&searchStore=%24search_type%3Dall%24icd%3D%24keywords%3DAngelMed%24status%3Dall%24page%3D1%24from_date%3D%24to_date%3D%24report_type_options%3D%24technology_type_options%3D%24organ_system_options%3D%24specialty_options%3D%24order%3DasearchRelevance)

January CT, Wann LS, Alpert JS, Calkins H, et al. 2014 AHA/ACC/HRS guideline for the management of patients with atrial fibrillation: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines and the Heart Rhythm Society. J Am Coll Cardiol. 2014;64: e1–76.

Hugh C, Hindricks G, Cappato R, Kin Y, et.al.,2017 HRS/EHRA/ECAS/APHRS/SOLAECE expert consensus statement on catheter and surgical ablation of atrial fibrillation.

Solbiati M, Costantino G, Casazza G, et al. Implantable loop recorder versus conventional diagnostic workup for unexplained recurrent syncope. Cochrane Database Syst. Rev. 2016;4: DOI: 10.1002/14651858.CD011637.pub2.

U.S. Food & Drug Administration. AngelMed Guardian System-P150009. Summary of Safety and Effectiveness Data. Date of FDA Notice of Approval April 9, 2018.

[https://www.accessdata.fda.gov/cdrh\\_docs/pdf15/P150009B.pdf](https://www.accessdata.fda.gov/cdrh_docs/pdf15/P150009B.pdf)

1	
---	--

Furukawa T, Maggi R, Bertolone C, Fontana D, Brignole M. Additional diagnostic value of very prolonged observation by implantable loop recorder in patients with unexplained syncope. [J Cardiovasc Electrophysiol.](#) 2012 Jan;23(1):67-71. doi: 10.1111/j.1540-8167.2011.02133.x. Epub 2011 Jul 21. Accessed January 4, 2019. <https://www.ncbi.nlm.nih.gov/pubmed?term=21777327>