**Lowering the Risk of Recurrent Stroke**

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[Prevention & Treatment](http://www.futureofpersonalhealth.com/prevention-and-treatment)

Wayne Derkac, Vice President of Medical Affairs at BioTelemetry, Inc., discusses how the detection of atrial fibrillation by outpatient cardiac monitoring can decrease the risk of recurrent stroke.

In the United States, approximately one-third of new stroke patients, or 265,000 people yearly, will have an unknown reason for their stroke at the time of hospital discharge despite ECG testing, blood tests, visualization of the heart with ultrasound and heart and major blood vessel evaluation by CT scanning. Since the risk of recurrent stroke within one year of a prior ischemic (due to brain blood vessel obstruction) stroke is 13 percent, an intensive search for a cause is imperative. Treatment should be given to lower the risk of recurrent stroke, as well as treat atrial fibrillation if present.

**Lowering risks**

Studies estimate that 25-35 percent of ischemic stroke patients have undiagnosed atrial fibrillation. In fact, just having atrial fibrillation increases stroke risk by five times. In patients with atrial fibrillation, treatment with blood-thinning medication lowers stroke risk by 60 percent.

A search for atrial fibrillation, which may occur sporadically, is based on improved patient outcomes resulting from control of atrial fibrillation heart rate or conversion of atrial fibrillation to a normal heart rhythm and reduction in risk of recurrent stroke. Since atrial fibrillation is associated with blood-clot formation in the heart, which can move to obstruct brain blood flow, a diagnosis of atrial fibrillation allows for treatment with blood thinners to prevent clot formation in the heart and subsequent migration of that clot.

**Available devices**

Multiple cardiac monitoring devices are available that can detect atrial fibrillation in outpatients. Device types have differing arrhythmia detection accuracy, data access and time monitoring capabilities. External cardiac monitoring devices can monitor patients for up to two days (standard Holter), up to 14 days (extended Holter) and up to 30 days (Mobile Cardiac Telemetry and non-wireless autotrigger event recorders). Mobile Cardiac Telemetry, with its wireless connectivity, high diagnostic yield and 24/7/365 monitoring center oversight, provides the most rapid physician notification of the presence of atrial fibrillation allowing for earlier institution of treatment. In the absence of atrial fibrillation detection by these external devices, a device can subsequently be implanted inside the body to look for the occurrence of atrial fibrillation for up to three years.

**Conclusion**

Outpatient cardiac monitoring plays a definitive role in lowering recurrent stroke risk in patients diagnosed with atrial fibrillation.

[Stroke Awareness](http://www.futureofpersonalhealth.com/topic/stroke-awareness)

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After a stroke, people who develop atrial fibrillation (AF) have an up to 5 times greater risk of a second stroke.1

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**MCOT** is the only cardiac monitor proven to detect AF (≥ 30 seconds) with 100% sensitivity and 100% positive predictivity.\*

1. Sposato LA, Cipriano LE, et al. Diagnosis of atrial fibrillation after stroke and transient ischaemic attack: a systematic review and meta-analysis. *Lancet Neurol.* 2015;14:377–387.  
  
\*Based on MIT-BIH (Massachusetts Institute of Technology-Beth Israel Hospital) Arrhythmia Database testing of ≥30-second AF episodes. (FDA 510k submission)  
†Versus ILR (Implantable Loop Recording)

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Doc.220-0539-01 Rev. A

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