

Atrio's Performance Analysis: Overview

Atrio is an advanced ECG Holter monitoring system which uses revolutionary artificial intelligence and a cloud-based software system with integrated telehealth capabilities.

Superior performance across the board.

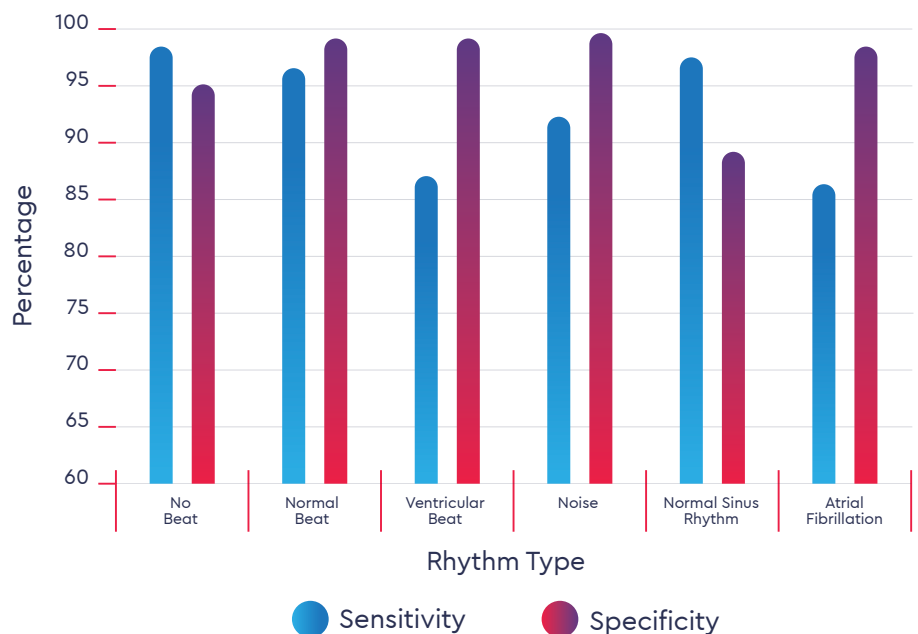
Atrio's AI utilises separate neural networks for beat and rhythm classes and is universal across all ECG configurations and modalities. This unique combination of a rhythm neural network along with a beat neural network with configurable rules for a range of arrhythmias gives Atrio the competitive edge.

Atrio's superior AI performance is based on a carefully curated, gold standard database compiled from multiple ECG modalities. Our analysis in Figure 1. demonstrates excellent specificity and sensitivity across six key classes.

Atrio's features provide the right tool for the right job:

- ▶ Rhythm AI, Beat AI and configurable rules for a range of arrhythmias Unsupervised AI clustering of beat morphologies for improved workflow.
- ▶ Atrio's overall performance allows for long term detailed analysis of beats and rhythms at scale.

Figure 1. Atrio AI Performance



Rhythm detection: Superior performance

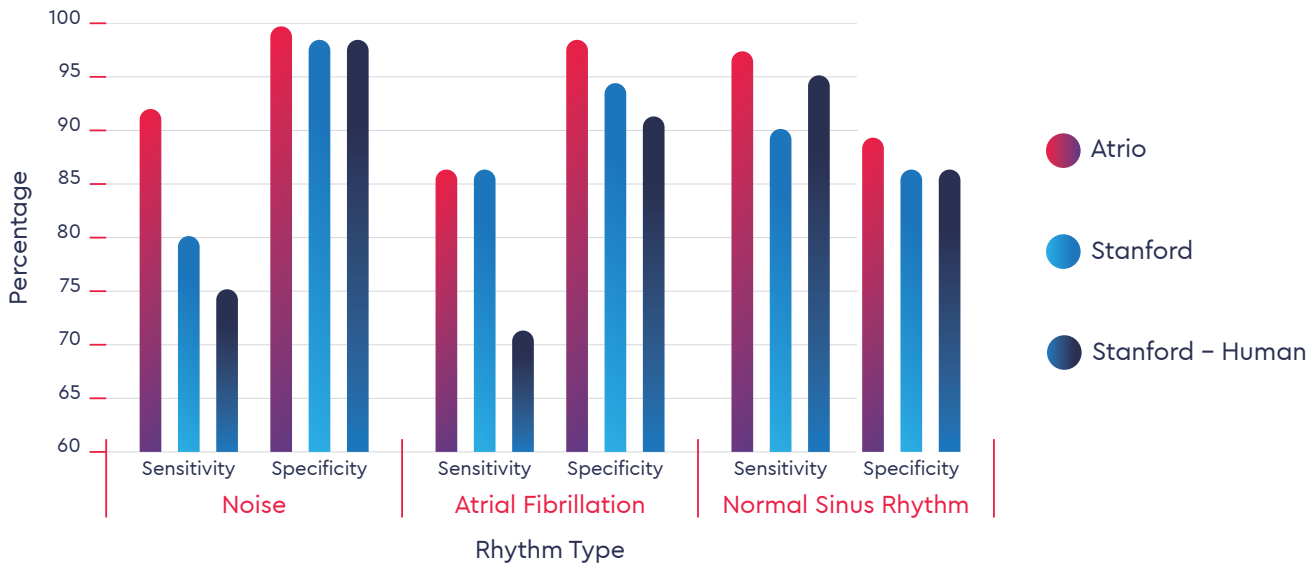
Atrio's artificial intelligence supported decision tools deliver excellent accuracy in rhythm and beat detection.

Atrio's internal testing (displayed in Figure 2.) demonstrates our neural network outperforms cardiologists alone and an ECG AI developed by the Stanford Machine Learning Group at the classification of three rhythm classes; Atrial Fibrillation, Normal Sinus Rhythm and Noise. Atrio outperforms the competition systems in all three categories.

Atrio's excellent performance will continuously improve over time as the AI trains on a growing real-world database. It enables benefits to your workflow now and will learn and improve with your practice to deliver a next generation of excellence in care.

Sensitivity is the ability of a test to correctly identify those with the disease (true positive rate). Specificity is the ability of the test to correctly identify those without the disease (true negative rate).

Figure 2. Atrio Comparison Performance



Atrio data based on internal testing.

Stanford data: Hannun, A.Y., Rajpurkar, P., Haghpanahi, M. et al. Cardiologist-level arrhythmia detection and classification in ambulatory electrocardiograms using a deep neural network. Nat Med 25, 65-69 (2019). <https://doi.org/10.1038/s41591-018-0268-3>

For more information or to learn more about the Atrio Holter ECG Monitoring System and how it can support your practice today, please contact info@alertedh.com or visit www.atr.io.