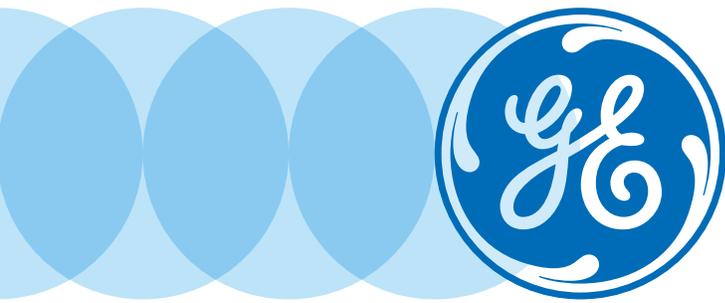


GE Healthcare

MARS Ambulatory ECG Analysis

The power to assess and predict



Prevention starts with knowledge

Around the world, heart disease is one of our fastest-growing health issues. Sudden Cardiac Death (SCD) claims the lives of millions every year, and many of those did not know they were at risk. The ability to quickly and accurately predict who is at the greatest risk for SCD has the potential to make a real difference in global health.

MARS™ Ambulatory ECG system is configurable with the comprehensive suite of Marquette™ ECG analysis programs to suit your various clinical needs. The MARS system applies the breadth and depth of the various risk-scoring analytics to provide physicians with one combined report and enables them to make clinical decisions supported by in-depth, validated information.

Identify high-risk patients effectively. Begin treatment sooner. Make a real difference in global health, one life at a time. That's the real power of prediction—through a revolutionary system that opens the door to a new standard of cardiac care.

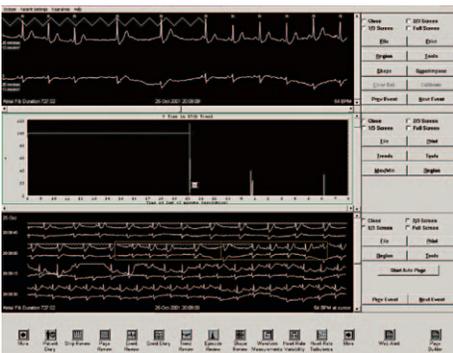




EK-Pro ECG analysis

EK-Pro™ uses up to three simultaneous ECG leads for analysis and optimized arrhythmia event detection. EK-Pro meets AHA recommendations for up to three simultaneous leads for arrhythmia analysis.¹

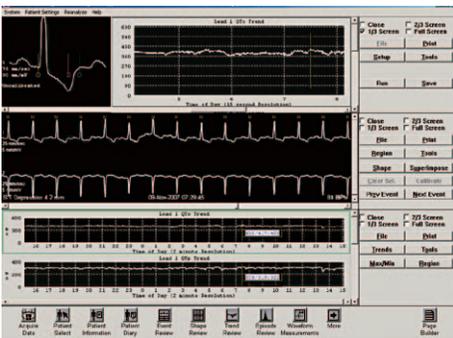
- Atrial fibrillation detection and trending
- P-wave recognition
- Four-lead analysis for optimized event detection



Atrial fibrillation detection

The atrial fibrillation algorithm detects, quantifies, and documents episodes of atrial fibrillation by using the MARS system's beat detection, timing, and beat labeling information. The program produces a comprehensive final report to aid in physicians' risk assessment and treatment decisions.

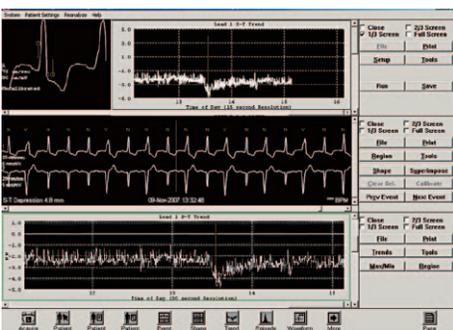
- Program can be run automatically or manually during the editing process
- Documents the presence of atrial fibrillation throughout the recorded period
- Incidences of atrial fibrillation are easily accessed by clinicians for rapid assessment and documentation



QT interval measurement

This algorithm simplifies the process of identifying prolonged QT, a genetic or drug-induced complication that can lead to serious arrhythmias. The algorithm runs during the standard ECG analysis and provides a comprehensive understanding of a patient's QT through interactive tools and displays. The patient's QT strip is documented in the MARS system's final reports, with QT summary reports, QT/RR trends, and QT strips.

- Real-time measurement and trending of QT interval for each channel over the entire recording period
- Measures both QT peak and QT end intervals
- Detailed QT trends based on beat-to-beat analysis
- Multiple QT correction trends generated to speed analysis and reporting
- Assessment includes day and night QT/RR trends



ST segment measurement

Through continuous monitoring of ST segment deviation, this algorithm works through the MARS system to provide a detailed understanding of ST segment deviation and slope.

- Measures and trends ST segment deviation and slope every 15 seconds throughout ECG recording
- Measurements are made at the J point and at a user-selectable ST measurement point
- Final report includes separate trends for each channel, maximum ST deviation, and detailed documentation of each ST event's time, duration, and measurement

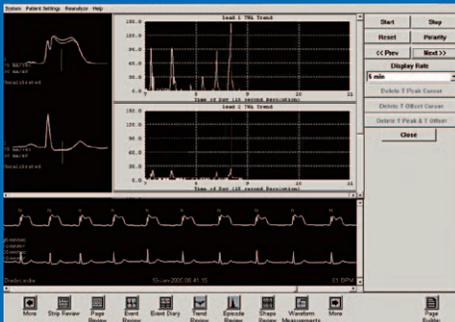
The power to predict

Diagnostic algorithms support better outcomes

Since the introduction of the industry-leading Marquette 12SL ECG analysis program, GE Healthcare has continued to develop the diagnostic tools physicians need to help identify at-risk patients and intervene with treatments that help avoid SCD.

From the doctor's office to the cardiology department, the MARS Ambulatory ECG System applies advanced risk-stratification algorithms to help clinicians identify which patients are at a higher risk for SCD. These highly sophisticated programs, including Modified Moving Average T-wave Alternans

(TWA) and Heart Rate Turbulence (HRT), measure anomalies that can be missed by the human eye—allowing clinicians to take action while there is still time.



Modified Moving Average T-wave Alternans (TWA)

The TWA algorithm measures and quantifies alternations on beat-to-beat patterns, precisely detecting fluctuations in the ECG waveform. TWA enables physicians to identify an often-missed pattern variation that may indicate a high level of SCD risk and helps support earlier treatment decisions.

- Detects and measures TWA regardless of fluctuations in heart rates over time
- Localizes area in heart where TWA is occurring the most
- No proprietary electrodes or special protocols required



Heart Rate Turbulence (HRT)

The HRT algorithm measures and compares the heart rate before and after premature ventricular contractions. These comparisons are used to determine the status of the autonomic nervous and cardiovascular systems, which are indicative of cardiac health.

When HRT is used in conjunction with TWA, HRV, and QT analysis, multiple risk factors can be measured simultaneously, giving clinicians a comprehensive view of a patient's risk.

- Provides clinicians with visualization of data used to calculate HRT
- Simple to use, with default settings linked to current literature recommendations
- User-flexible criteria



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GE Healthcare provides transformational medical technologies and services that are shaping a new age of patient care.

Our broad expertise in medical imaging and information technologies, medical diagnostics, patient monitoring systems, drug discovery, biopharmaceutical manufacturing technologies, performance improvement and performance solutions services help our customers to deliver better care to more people around the world at a lower cost.

In addition, we partner with healthcare leaders, striving to leverage the global policy change necessary to implement a successful shift to sustainable healthcare systems.

Imagination at work

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¹ Mirvis D.M., et. al. Instrumentation and practice standards for electrocardiographic monitoring in special care units. A report for health professionals by a Task Force of the Council on Clinical Cardiology. American Heart Association 79, 464-471 (Feb. 1989).

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