

Clinical Decision Support

See subtle changes in ST values **at a glance**

How can I monitor patients at risk of ischemia or myocardial infarction, and react quickly?

How can I see whether a coronary intervention is having the desired effect?

STEMI Limit Map

STEMI Limit Map combines ST Map with STEMI limits.



ST elevation limit alarms are shown in red for easy visualization

ST Map helps you compare current ST values to baseline data. But for higher acuity patients, you need to be even more proactive. With STEMI Limit Map, you can compare your patient's ST values with elevation limits at a glance – helping you identify, evaluate, and treat ACS patients. Also referred to as "STE Map", this exclusive tool is consistent with AHA/ACC recommendations for ACS.

Decode your measurements

Patients suffering ischemia or myocardial infarction may display tell-tale symptoms. But sometimes, symptoms may be atypical or even amount to "silent ischemia," increasing the risk of a missed diagnosis.

While ST segment monitoring is not the most sensitive, specific technique for detecting myocardial ischemia, it is the only practical technique for continuous non-invasive monitoring of ischemic episodes. The AHA and other professional organizations recommend continuous ST segment monitoring for all acute coronary syndrome (ACS) patients at risk of myocardial ischemia.¹

Are your staff effectively integrating ST segment monitoring into patient care? Interpreting traditional, static ST values requires a head for numbers, as well as a method for comparing normal ranges and changes in a particular patient's values. "ST Map gives an integrated view of the directional ST movements over time. All our nurses are trained on it, so it allows for a shorter reaction time than the traditional ST indexes."

Dr. Stefan Jovinge, coronary intensive care unit medical director, Lund University Hospital, Sweden

Get a heads-up view

Philips ST Map collects ST values and trends derived from limb and chest leads, to provide an integrated display of ST segment data. This focused view helps you more easily recognize ST changes and location.

"By being vectorized, you see which leads are dynamic in the actual patients, and to what extent," says Dr. Stefan Jovinge of Lund University Hospital. The graphical displays are much more than two-dimensional "snapshots" in time too. "The benefit is that you don't see an absolute value. You have a comparison or a delta value to previous information, which increases the sensitivity."

Identify issues, respond faster

In cases of ST Elevation Myocardial Infarction (STEMI), patient outcome can be quantified by the delay before performing interventions. A faster response time can help you meet your "discovery to treatment" performance.

Successfully integrating ST segment monitoring in the ICU can support an early warning system for ACS. ST Map and STEMI Limit Map visually illustrate imbalances in a patient's values so that even passing nurses can recognize and raise suspicions quickly. Once clinicians are called, they can rapidly make more informed decisions.

ST Map

ST Map is a graphical representation of patient ST values in an easy-to-read, multi-axis diagram.



Baseline data is displayed in yellow and matches the color of the current ST value to the ECG. The ST/AR algorithm measures ST values from frontal (limb leads) and horizontal (chest leads) planes. You can see trend values with intervals ranging from 12 seconds to 30 minutes. The unique spatial orientation view of ST Map, consistent with 2009 AHA/ ACC guidelines, helps you quickly and easily identify changes at the bedside.

Consistent with American Heart Association and American College of Cardiology (AHA/ACC) guidelines, the unique spatial orientation view of ST Map helps you quickly and easily identify changes at the bedside. Putting ST segment values in context could help you implement ST segment monitoring in the first place. While increasing acceptance from nurses and saving them manual charting time, you can enforce standards to improve clinical practice and the quality of patient care.

Check the effectiveness of interventions

Watching ST segment values can also be important to assess whether coronary interventions are having the desired effect. Set a baseline in yellow and watch current values continuously update as the green lines and shaded area. How the visualization changes can help you recognize potential complications.

For example, when patients have been newly revascularized – either through a coronary artery bypass graft (CABG) or percutaneous coronary intervention (PCI) – you can monitor for re-occlusions. After thrombolytic therapy, you can use ST Map to monitor for reperfusion.

Your interests at heart

ST Map can be used in conjunction with Advanced Event Surveillance to provide smart alarms about significant changes. It can also be used together with Horizon Trends for perfusion management.

¹ Drew BJ, Califf RM, Funk M, et al; American Heart Association; Councils on Cardiovascular Nursing, Clinical Cardiology, and Cardiovascular Disease in the Young. Practice standards for the electrocardiographic monitoring in hospital settings: an American Heart Association scientific statement from the Councils on Cardiovascular Nursing, Clinical Cardiology, and Cardiovascular Disease in the Young: endorsed by the International Society of Computerized Electrocardiology and the American Association of Critical-Care Nurses. Circulation. 2004;110(17):2721-2746

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Printed in the Netherlands 4522 991 14191 * SEP 2015