

Rapid assessment at a glance



Real-time, actionable results for improved patient outcomes

ROTEM *sigma* is an easy-to-use thromboelastometry system that delivers rapid results at the point of care (POC) to guide bleeding management—reducing inappropriate blood transfusions.¹⁻³

From cardiovascular surgery to trauma, ROTEM *sigma* is used to assess critical bleeding situations. TEMograms provide real-time clinical information, enabling clinicians to optimize hemostasis while minimizing blood loss and blood product exposure—key goals of patient blood management (PBM) programs.



The difference is easy to see.

Supports the goals of PBM programs

ROTEM testing is an integral part of PBM, a multidisciplinary, evidence-based program that optimizes a patient's own blood volume to reduce inappropriate transfusions.⁴

Fully automated viscoelastic testing at the POC

Easy to use and interpret while offering rapid, accurate results for timely clinical decisions

Enables rapid clinical decisions

- First results in <10 minutes. Actionable results, including amplitude information in <15 minutes
- Enables clinical decisions to be made in significantly less time than with traditional methods, facilitated by no sample incubation time and use of rapid activators
- Heparin neutralization allows testing during cardiopulmonary bypass
- Live viewing options for real-time diagnosis, enabling timely clinical decisions

Easy to use

- Fully automated cartridge system eliminates sample pipetting with closed tube direct sampling
- Cartridges can be stored at room temperature for rapid use at the POC
- Intuitive touchscreen interface
- Automated assay initiation upon sample introduction

Accurate, reproducible results

- Integrated quality control (QC) at the POC, with continuous internal system monitoring
- Reduced user interaction delivers more consistent results

Enhanced interpretation

- Large, easy-to-view TEMograms
- Four independent channels for differential diagnosis of coagulopathy
- In-process results can be compared to reference curves with profile and patient overlays

Essential for any PBM program

Major studies show that PBM can reduce transfusions and improve patient outcomes^{1,2}

Viscoelastic testing, a key component of PBM and identified as a critical factor for its success, is recommended by the European Commission.⁵

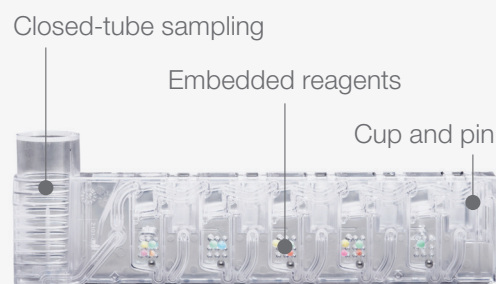
Effective implementation of PBM includes education and awareness, involvement of key stakeholders, a focused organization and infrastructure, development and monitoring of key performance indicators, and use of diagnostic instrumentation, such as ROTEM.⁵

Evidence-based and validated

Viscoelastic testing is recommended in key guidelines to inform individualized transfusion decisions.^{6,7}

Fully automated cartridge system with flexible assay menu

- Eliminates pipetting, requiring <2 minutes of operator activity
- Virtually eliminates operator-induced errors
- Room-temperature storage requiring no refrigeration
- Consistent reagent and sample volumes
- Barcode labeling for immediate identification within system
- Eliminates operator sample conditioning and measurement



Cartridge assay and type	Analytical principle	Heparin neutralization*
EXTEM C ■ ■	Assessment of coagulation via the extrinsic pathway	Up to 5 U/mL
INTEM C ■ ■	Assessment of coagulation via the intrinsic pathway	Heparin sensitive
FIBTEM C ■ ■	Assessment of coagulation via the extrinsic pathway after blocking platelet contribution to clot firmness	Up to 5 U/mL
HEPTEM C ■	Assessment of coagulation via the intrinsic pathway after inactivating heparin	Up to 7 U/mL, used during cardiovascular surgery
APTEM C ■	Assessment of coagulation via the extrinsic pathway after blocking fibrinolysis	Up to 5 U/mL, used in trauma scenarios

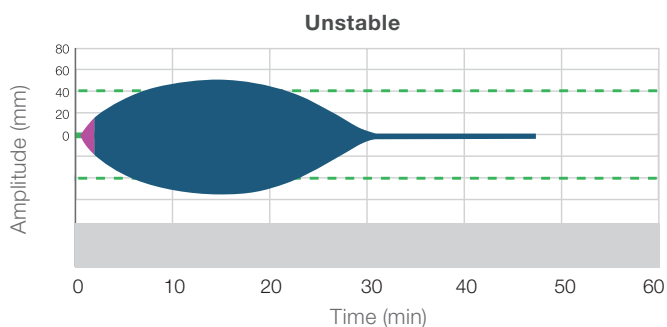
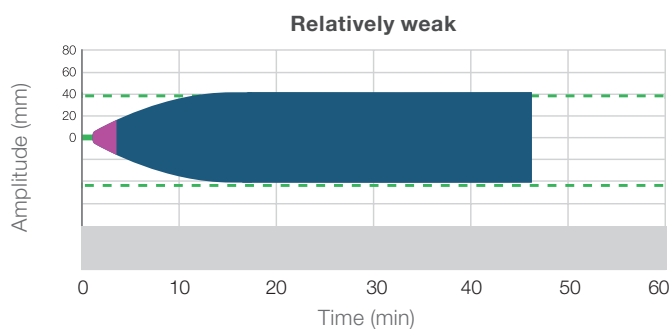
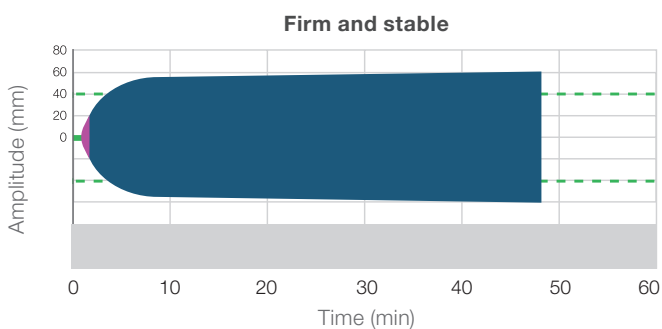
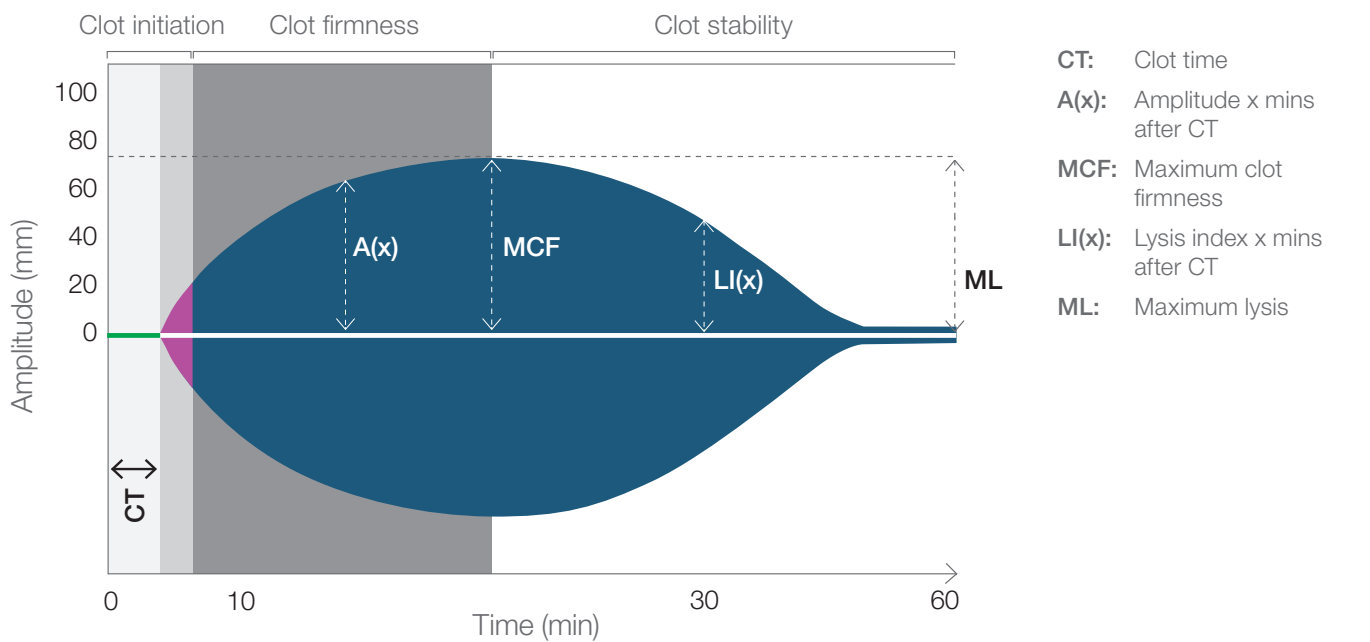
■ ROTEM *sigma* complete ■ ROTEM *sigma* complete + hep

*Unfractionated heparin.

Enhanced interpretation with ROTEM TEMograms

A clearer picture of coagulopathy^{8,9}

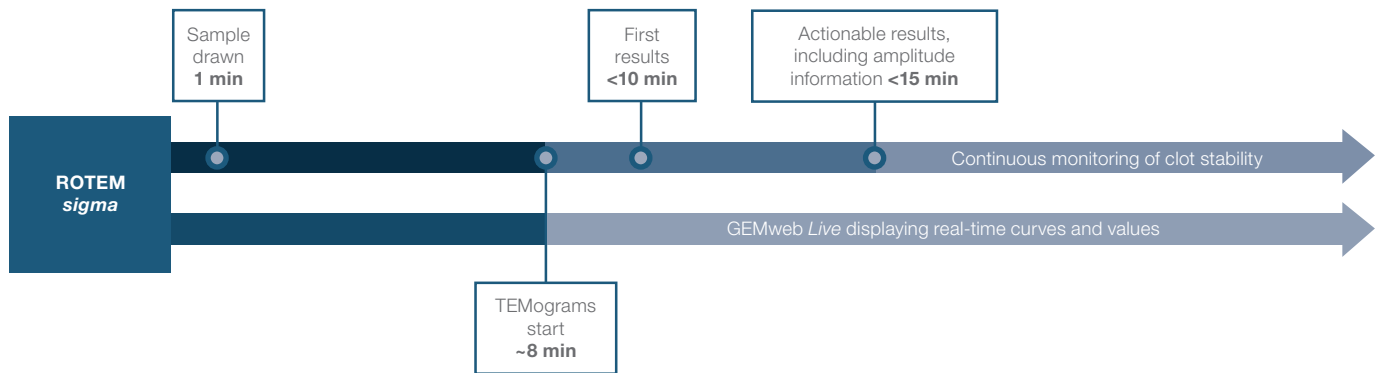
- Immediate, at-a-glance assessment of clot firmness and stability
- Enhanced rapid activators expedite TEMogram formation and results
- Shapes, published ranges, and algorithms inform hemostasis assessment and therapeutic decisions



Facilitates differential diagnosis
Comparing TEMograms from multiple assays allows quick interpretation for targeted patient management decisions.

Guides appropriate and timely decisions for effective bleeding management

Enables clinical decisions faster than traditional testing methods



Allows for individualized, goal-directed management decisions in a wide range of clinical scenarios

GEMweb® *live*



Cardiovascular surgery



Trauma



Liver transplant



Postpartum hemorrhage

Remote viewing of results in real time

- Web-based data viewer
- TEMOgrams and numeric ROTEM assay results displayed in real time, from site of analysis to the POC
- Results obtained during a procedure are searchable by patient or sample ID

Advanced connectivity and training

Simple management of information, systems, and operators

GEMweb[®] Plus⁵⁰⁰
CUSTOM CONNECTIVITY

- Simple web access from any browser
- Easy at-a-glance dashboard
- Centralized access to patient results and TEMograms from any networked ROTEM system
- View, compare, and print TEMograms
- Access patient result history, even during testing
- Automatic and configurable test selection for viewing and downloading (PDF) reports
- Single Laboratory Information System/Hospital Information System connection for test results and TEMograms

At-a-glance dashboards facilitate access to patient samples, controls, and historical results.



Simplify education, training, and certification

- Educational programs for ROTEM operators
- Operator training for certification and accreditation
- Comprehensive online classes in PBM, Hemostasis, Acute Care Diagnostics, and Autoimmunity
- Available online 24/7, from PC or mobile device

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Rapid, actionable results at the POC, for a difference that's easy to see



Acute Care Diagnostics

Integrative solutions at the speed of life

The ROTEM *sigma* system is part of the broad Acute Care Diagnostics portfolio from Werfen. Acute care requires timely, decisive action, based on accurate diagnostic assessment. That's why thousands of hospitals trust our Blood Gas, PBM and Whole Blood Hemostasis products for fast, quality results, enhancing efficiency and patient care.



References

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