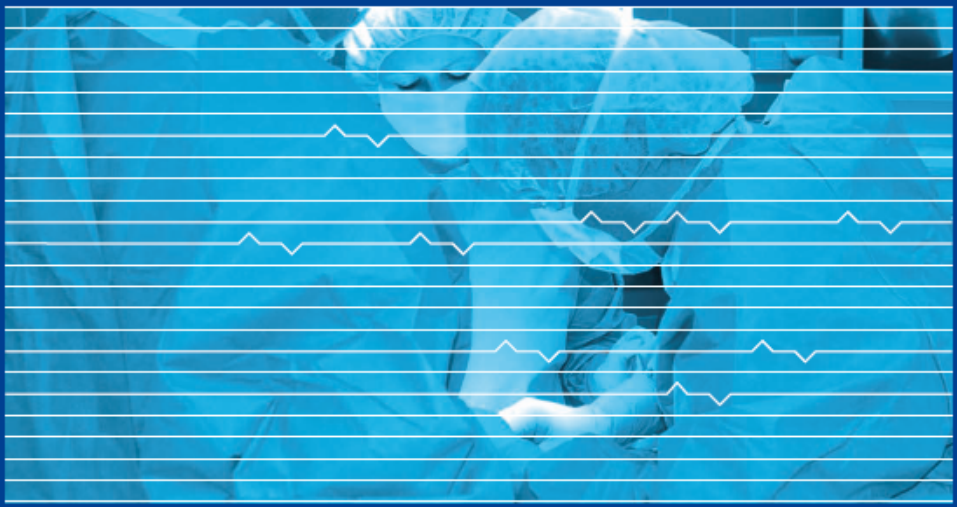


WHAT´S CAUSING THE BLEEDING?
You need to know fast . . .

thromboelastometry

ROTEM®

The bleeding management system

The key to bleeding control

DIFFERENTIAL DIAGNOSIS

SCREENING (INTEM) (EXTEM*)

NORMAL	ABNORMAL
No obvious haemostasis disorder	Haemostasis disorder
Surgical bleeding likely	Bleeding risk
	Haemotherapy required
	For targeted therapy:

ADDITIONAL TESTS	DIFFERENTIAL DIAGNOSIS				
	EXTEM*	INTEM	FIBTEM*	APTEM*	HEPTEM
Exclusion of suspected primary haemostatic disorder	Factor deficiency?		Fibrin polymerisation problem or fibrinogen deficiency? Platelet disorder?	Hyperfibrinolysis?	Heparin? Other deficiencies masked by heparin?
CONSIDER	**CONSIDER**				
Surgical intervention	FFP		Fibrinogen DDAVP	Antifibrinolytics	Dose change
	Factor concentrates		FFP, Cryo Platelets		or protamin

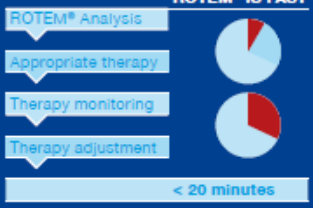
The ROTEM® system provides a unique set of tests to discriminate between therapeutic options.

*Research use only in the US

Rapid differential diagnosis

Acute peri-operative bleeding can be life-threatening and always requires immediate action. Rapid differential diagnostic information is the basis of targeted therapy. ROTEM® analysis provides valuable results in 5 to 20 minutes and treatment can start instantly. ROTEM® analysis with a new blood sample enables monitoring and fine-tuning of the therapy.

ROTEM® IS FAST



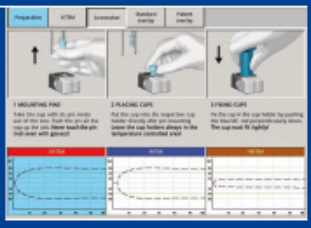
Comprehensive bleeding management
- pre-operative screening
- peri-operative differential diagnosis
- rapid discrimination between surgical bleeding and coagulopathy
- therapy monitoring and control

Benefits of differential diagnosis
- targeted therapy
- effects of treatment can be monitored immediately
- risks of complications are minimised
- patient benefit becomes measurable

POC coagulation monitoring

ON-SCREEN INSTRUCTIONS

GRAPHICAL USER GUIDE



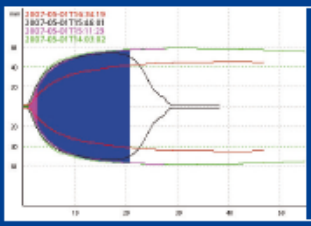
PIPETTING SEQUENCE

ROTEM®*delta* – bleeding management for the patient's benefit
In critical bleeding situations, coagulation testing in the laboratory is time consuming and may not correlate to the clinical picture. ROTEM® analysis is performed near the patient and provides information on
– hyperfibrinolysis
– the extent of dilutional coagulopathy
– the requirement for either fibrinogen or platelet substitution
– heparin and protamin dosage monitoring

Step by step user guidance – for true POC use
– test preparation steps on screen
– easy to use automated pipette
– reliable results, even in emergency situations
Multi-language support: English, French, German, Italian, Spanish, Swedish and Turkish. Other languages upon request.

RESULT TRACKING AND TRANSFER

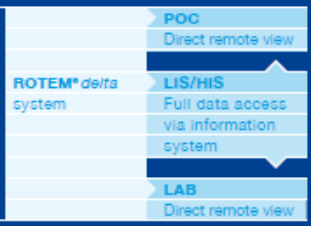
THERAPY MONITORING



LEFT Curve overlay of previous results simplifies therapy control.

RIGHT All test results are available in numerical and graphical format. Transfer to LIS/HIS systems or real time view on selected PCs is available. The integrated user management ensures data safety.

CONNECTIVITY



Fast and easy operation

REAGENTS FOR DIFFERENTIAL ANALYSIS

REAGENT	MAIN COMPONENTS	INFORMATION
ex-tem®	Tissue factor	Global test for plasmatic coagulation factors, fibrin polymerisation, platelet contribution, hyperfibrinolysis. Low heparin sensitivity.
in-tem®	Contact activator	Global test for plasmatic coagulation factors, fibrin polymerisation, platelet contribution, hyperfibrinolysis. Heparin sensitive.
fib-tem®	Cytochalasin D Ca++	Fibrin status: Identification of polymerisation disorders or deficiency.
ap-tem®	Aprotinin Ca++	Confirmation or exclusion of hyperfibrinolysis.
hep-tem®	Heparinase I Ca++	Screening test in the presence of heparinase; like INTEM, but without heparin influence.

Each test requires only 300µl of citrated blood.

TWO REAGENT LINES – EQUIVALENT RESULTS

SINGLE USE REAGENTS*

For optimal reagent usage
- One test per vial
- No reagent handling
- Just add blood and start test
- No reagent wastage

LIQUID REAGENTS

For high volume user
- Ready to use
- Colour coded
- Excellent stability

POC-optimized software
The touch-screen optimized measurement software enhances operation. Elaborate colour coding of the TEMogram curve and flagged out of range numerical results facilitate evaluation, even when looking at the monitor from a distance. Overlay of a patient's TEMogram with a standard curve or the same patient's previous TEMograms further simplify interpretation.

Help system with patient cases from clinical experts
Comprehensive understanding of the patient's coagulation is important for targeted treatment. The on-board learning programme, with cases from experts, helps novices with result evaluation and interpretation. Cases are shown with test results, diagnostic conclusions and applied treatment.

EASY TO HANDLE

CONVENIENT TOUCH SCREEN

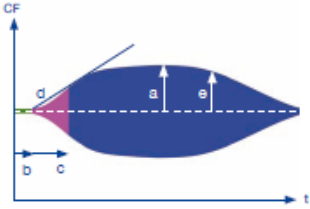
INTEGRATED LEARNING PROGRAMME

LEFT Touch-screen operation and a consistent colour coding facilitate easy handling and interpretation.

RIGHT The cases shown in the learning programme combine patient history, test results and applied treatment on one concise screen.

The key to cost control

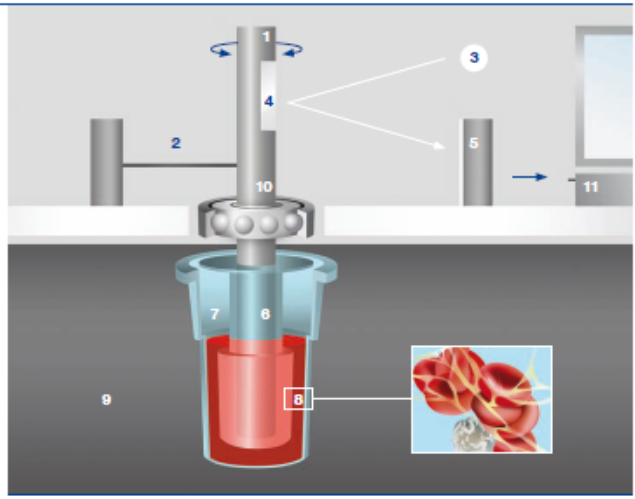
THE TEMOGRAM



t time, **CF** clot firmness
a MCF, maximum clot firmness
b CT, clotting time
c CFT, clot formation time
d alpha angle
e LI30, lysis index

1 oscillating axis (+/- 4,75°)
2 counterforce spring
3 light beam from LED
4 mirror
5 detector (electronic camera)
6 sensor pin
7 cuvette with blood sample
8 fibrin strands and platelet aggregates
9 temperature controlled cuvette holder
10 ball bearing
11 data processing unit

ROBUST TECHNOLOGY FOR THE POC



Technology for the POC

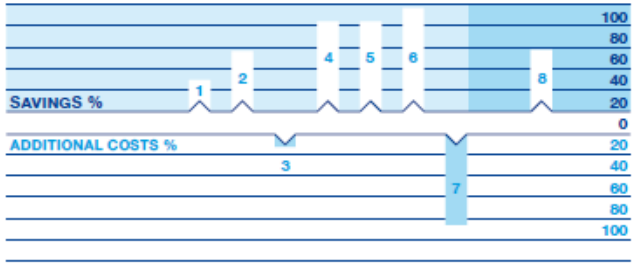
Thromboelastometry is designed to assess clot formation and lysis by a reliable and fast method. The unique ball-bearing stabilized technology enables operation of the system in the busy situation of an operating theatre – even on a trolley.

ROTEM® guided therapy – potential cost savings

In addition to better patient care, ROTEM® guided therapy has been shown to effectively save cost. Early targeted treatment leads to better control of bleeding with lower transfusion requirements. Moreover, the reduced platelet transfusion has the additional potential of reducing ICU and hospital stay time.

THE SAVING POTENTIAL

of ROTEM® guided therapy*



1 RBC
2 Platelets
3 FFP
4 PPSB
5 FXIII
6 FVIIa
7 Fibrinogen

8 Total cost savings

* data with kind permission of G. Spalding, Heart Centre, Bernau

ROTEM® *delta*

SYSTEM

SPECIFICATIONS

- First fully integrated Thromboelastometry instrument
- Touch screen operation
- 4 channels
- Dimensions: w 37 cm, l 57 cm, h 57 cm
- Weight app. 22 kg
- 350 watts max
- Measurement insensitive to shock & vibration
- Temperature: 37°C default setting, adjustable between 30-40°C
- Storage temperature 0-50°C
- Rel. humidity 20%-85%
- Altitude up to 2000 m
- Automated pipette
- Pre-warming position for patient samples
- Integrated user administration
- Database holds > 20.000 patient records
- Real-time data viewing via Intranet (password protected)
- Comprehensive database queries
- TEMogram overlay from database and during run
- USB printer (optional)
- Barcode reader (optional)
- User traceability
- LIS/HIS connectivity (including graphs)
- CE marked instrument, reagents and disposables (IVDD 98/79/EC)

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thromboelastometry
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