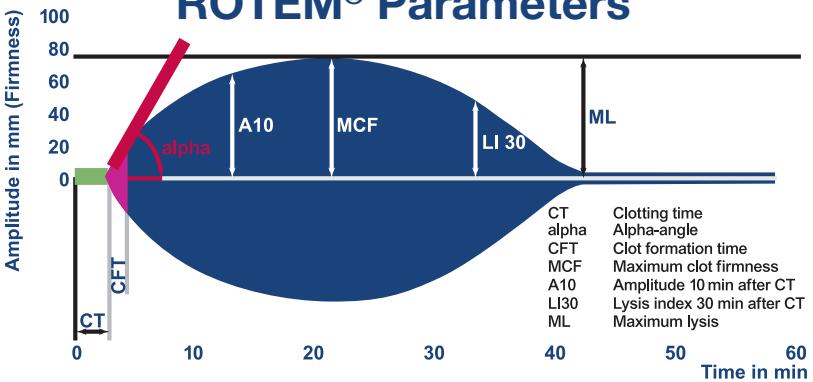
# ROTEM® Parameters

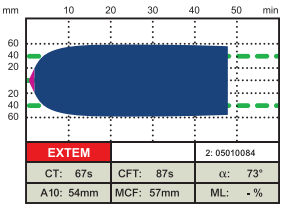


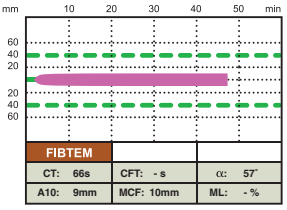

## Parameter Reference Range[1]

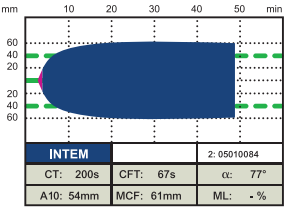
| | CT | CFT | a angle | A10[2] | A20 | MCF |
|---|---|---|---|---|---|---|
| INTEM | 122-208 | 45-110 | 70-81 | 40-60 | 51-72 | 51-72 |
| EXTEM | 43-82 | 48-127 | 65-80 | 40-60 | 50-70 | 52-70 |
| FIBTEM | | | | | | 7-24 |
| HEPTEM | Compare to INTEM | | | | | |
| APTEM | Compare to EXTEM | | | | | |

## "Normal" TEMograms Shapes

(example of normal clot onset, propagation rate and amplitude shape)



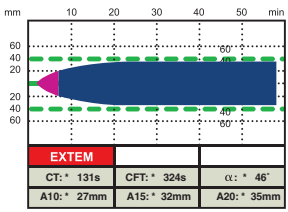

Disclaimer: This Pocket Guide is intended for use by qualified and trained ROTEM® users to assist in the safe use and interpretation of the results of the ROTEM® *delta* Thromboelastometry System. Results from the ROTEM® *delta* should not be the sole basis for a patient diagnosis; ROTEM® *delta* results should be considered along with a clinical assessment of the patient's condition and other coagulation laboratory tests.

BR2013.01v01

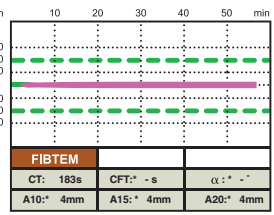
## ROTEM® Results in Clinically Significant Bleeding

| | | |
|---|---|---|
| $CT_{IN}$ | *Prolonged* | Suggests Heparin influence or intrinsic factor deficiency |
| $CT_{EX}$ | *Prolonged* | Suggests extrinsic factor deficiency |
| $A10_{IN, EX}$ | *Reduced* | Suggests poor clot firmness as a result of decreased: Platelets, fibrinogen and/or FXIII |
| $MCF_{IN, EX}$ | *Reduced* | Suggests poor clot firmness as a result of decreased: Platelets, fibrinogen and/or FXIII |
| $MCF_{FIB}$ | *Reduced* | Suggests poor fibrin contribution to clot firmness |
| $ML_{IN, EX, FIB}$ | *> 15%* | Suggests hyperfibrinolysis |

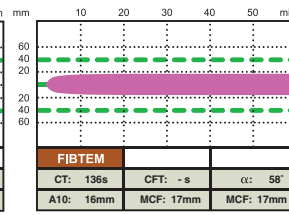
## ROTEM® TEMograms in Clinically Significant Bleeding



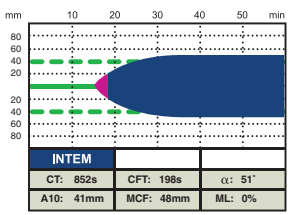

Low Amplitude
Poor Clot Firmness



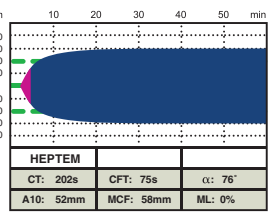

Low Amplitude
Poor Fibrin Contribution



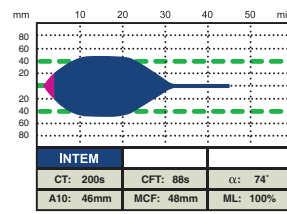

Normal Amplitude
Adequate Fibrin Contribution




Prolonged $CT_{IN}$
Factor deficiency or Heparin
*Prolonged $CT_{EX}$ indicates factor deficiency




Corrected $CT_{HEP}$ vs $CT_{IN}$
= Heparin effect




Demonstrated
Hyperfibrinolysis

References – (1) ROTEM® *delta* reference ranges (adult values listed in the above table) have been determined in 3 US clinical centers on reference group samples with no signs of impaired coagulation. These values are for orientation only. They are not binding and may vary from lab to lab. Please note that reference ranges for coagulation parameters depend on the reference population, the blood sampling technique and other pre-analytical factors. It is recommended to confirm the ranges with a hospital specific reference group. (2) Dirkmann D et al. Early thromboelastometric variables reliably predict maximum clot firmness in patients undergoing cardiac surgery: a step towards earlier decision making. Acta Anaesthesiol Scand. 2012 Dec 14. doi:10.1111/aas.12040.