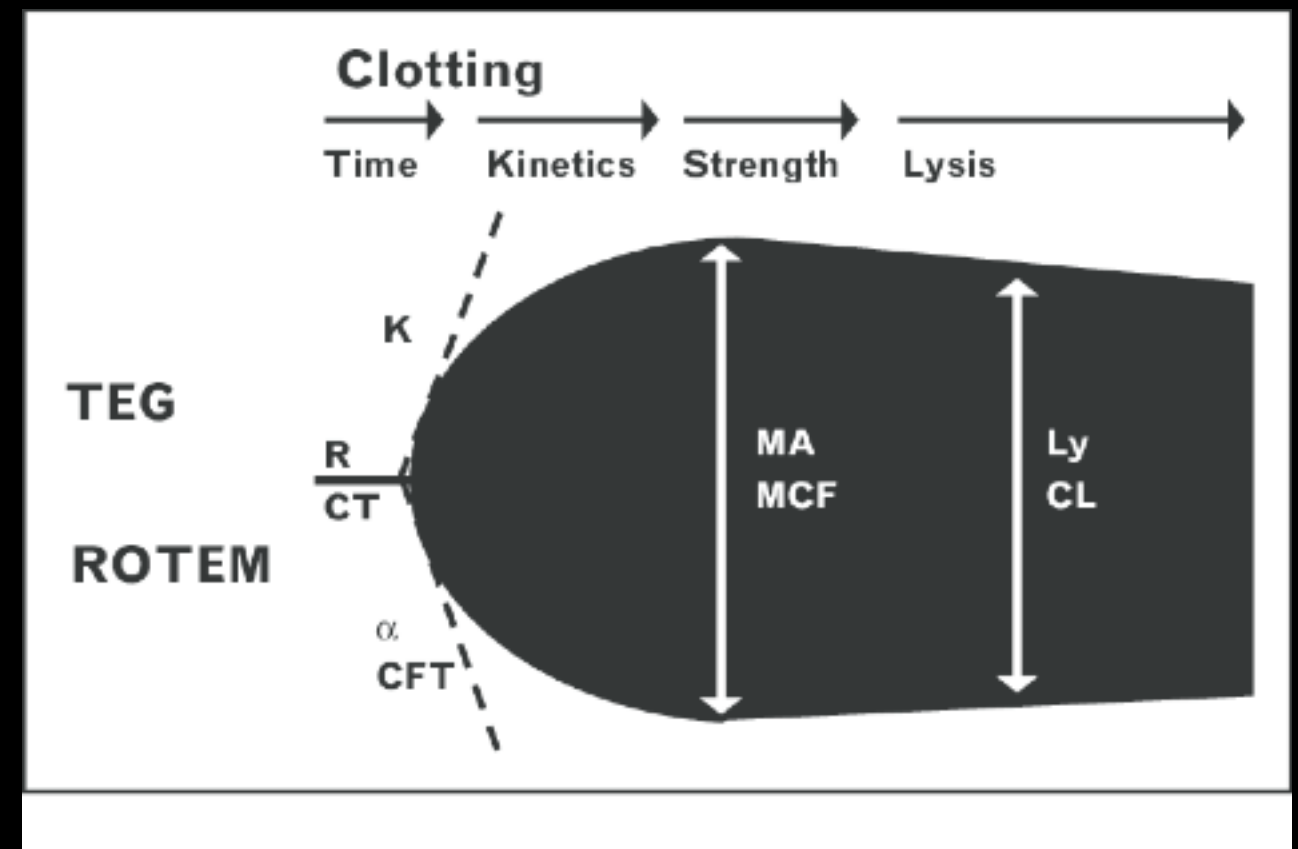


# CHANGES IN HAEMOSTASIS AT TERM

- prothrombotic at term
  - all pro coagulants ↑ except factor XI
  - fibrinogen levels double: 4-6 instead of 2-4 g/L
  - ↓ natural anticoagulants
- ↓ PT/APTT
- ↑ MCF/MA on TEG



# ISSUES

- bleeding in pregnant population  $\neq$  bleeding in trauma patient
- PT/APTT can remain normal despite large bleed
- fibrinogen levels fall earlier than other factors
- aetiology of bleeding affects the onset of coagulopathy
- limited info on haemostatic changes during evolving PPH

**Table 1** Mechanisms of coagulopathy dependent on aetiology of obstetric bleed. Late onset is abnormal coagulation usually only after 2000 ml blood loss.

Aetiology of bleed	Likelihood of coagulopathy (% transfused FFP)	Time of onset of coagulopathy	Mechanism of coagulopathy		
			Dilution	Consumptive	
				Local to uterus and placenta	Disseminated intravascular
Uterine atony	14	Late	Contributes in severe cases	Contributes in severe case	Very rare
Genital tract or surgical trauma	4	Late	Contributes in severe cases	Contributes in severe cases	Very rare
Placental abruption	42	Early (often before blood loss observed)	Contributes in severe cases	Main cause in mild and moderate cases	Contributes in severe cases
Retained and adherent placenta	8	Early or late	Contributes in most cases	Contributes in some cases	Rare unless associated with infection
Uterine rupture	66	Early	Main cause because large bleeds are common	Contributes in some cases	–
AFE	100	Early	Contributes in large bleeds	–	Main cause
Pre-eclampsia/HELLP	ND	Early (often before labour)	Contributes in large bleeds	Contributes in some cases	Contributes in some cases

AFE, amniotic fluid embolus; HELLP, haemolysis, elevated liver enzymes and low platelets.