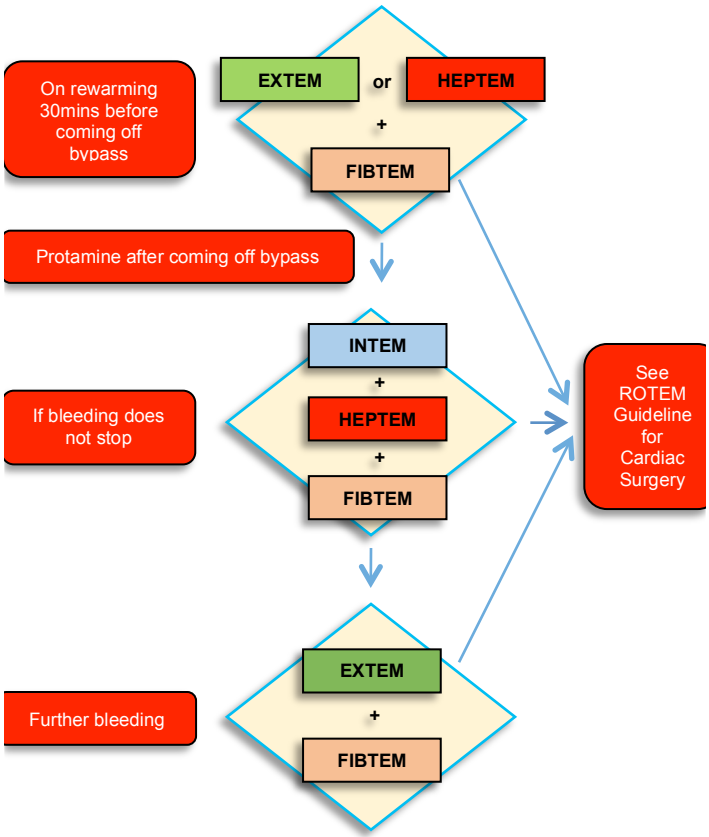
ROTEM ALGORITHM



ROTEM GUIDELINE FOR CARDIAC SURGERY

Bold – treat

Italics – treat if bleeding/high risk of bleeding

1. When to treat CT

CT in INTEM/HEPTEM > 300 sec	**or**	**CT in INTEM/APTEM > 100 sec**
CT in INTEM/HEPTEM 240 - 300 sec	*or*	*CT in INTEM/APTEM 80-100 sec*
CT in INTEM/HEPTEM <240 - 300 sec (No treatment required)	or	CT in INTEM/APTEM < 80 sec (No treatment required)

Causes of prolonged CT

Test	Diagnosis	Management
INTEM/HEPTEM ratio >1.0	Residual heparin	Protamine
FIBTEM A10 < 5 mm	Low fibrinogen	Cryoprecipitate
All other prolonged CT	Low coagulation	FFP 10-15 ml/kg

2. Clot Firmness & Management ( )

CLOT FIRMNESS		A10 in EXTEM/INTEM/HEPTEM/FIBTEM		
		<22 mm	22-38 mm	≥ 39 mm
A10 IN FIBTEM	<5 mm	**Low platelet Low fibrinogen (Cryoprecipitate + Platelet)**	**Low fibrinogen (Cryoprecipitate)**	*Low fibrinogen (Cryoprecipitate)*
	5-7 mm	**Low platelet Low fibrinogen (Cryoprecipitate + Platelet)**	*Low platelet Low fibrinogen (Cryoprecipitate + Platelet)*	Clot firmness appears satisfactory. If bleeding consider i) Raising fibrinogen >= 10 mm ii) If on aspirin consider platelets
	≥ 8 mm	**Low platelet (Platelet)**	*Low platelet (Platelet)*	

3. Clot lysis

Test	Diagnosis	Management
Lysis within 20 minutes	**Fulminant lysis**	**Tranexemic acid**
Lysis between 20-40 minutes	*Early lysis*	*Tranexemic acid*
Lysis > 40 minutes	Clot retraction	No treatment required

1. Tanaka KA, Bolliger D, Vadlamudi R, Nimmo A. Rotational thromboelastometry (ROTEM)-based coagulation management in cardiac surgery and major trauma. J Cardiothorac Vasc Anesth. 2012 Dec;26(6):1083-93