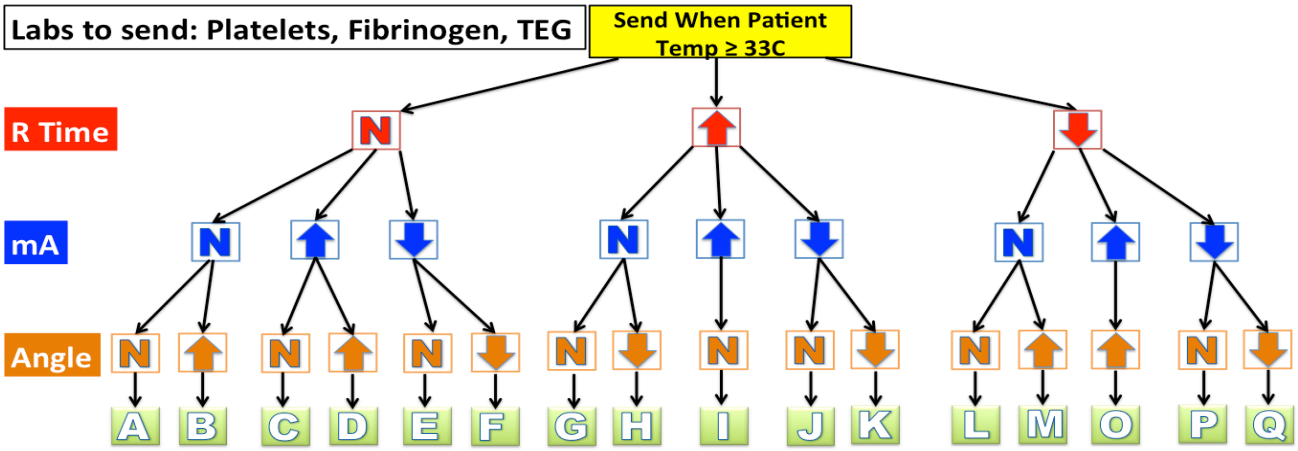
TEG Therapy Algorithm for Clotting Dysfunction



A, B – **TEG is normal. Do not transfuse clotting components**. Bleeding is anatomic/surgical. Consider transfusion of PRBC if profound anemia and blood viscosity is low. Correct pH, temperature and/or Calcium if abnormal.

C, D – **TEG is normal, with supra-normal clot strength. Do not transfuse clotting components.** Bleeding is anatomic/surgical. Consider transfusion of PRBC if profound anemia and blood viscosity is low. Correct pH, temperature and/or Calcium if abnormal.

E – **TEG is abnormal**. Clotting start time is normal, but the clot is weak. Rate of clot formation is normal, the patient is either thrombocytopenic or the platelets are dysfunctional. **Transfuse platelets** (If < 150 give 1 pack, If < 100 give 2 packs, If < 50 give 3 packs). If the patient has a high velocity lesion, or has ESRD, **transfuse ddAVP**. Otherwise for platelet dysfunction, give 2 packs of platelets.

F – **TEG is abnormal**. Clotting start time is normal, but the clot is weak and rate of clotting is slow. **Follow same as 'E' (above); however if fibrinogen is less than 200, also transfuse 1 pack cryo.**

G, H – **TEG is abnormal**. Clotting start time is delayed, but the clot is strong. **Ensure that heparin has been fully reversed with protamine**. If ACT is normal, then consider transfusion of 1-2 FFP. If fibrinogen is low, **also** consider transfusion of 1 pack cryo.

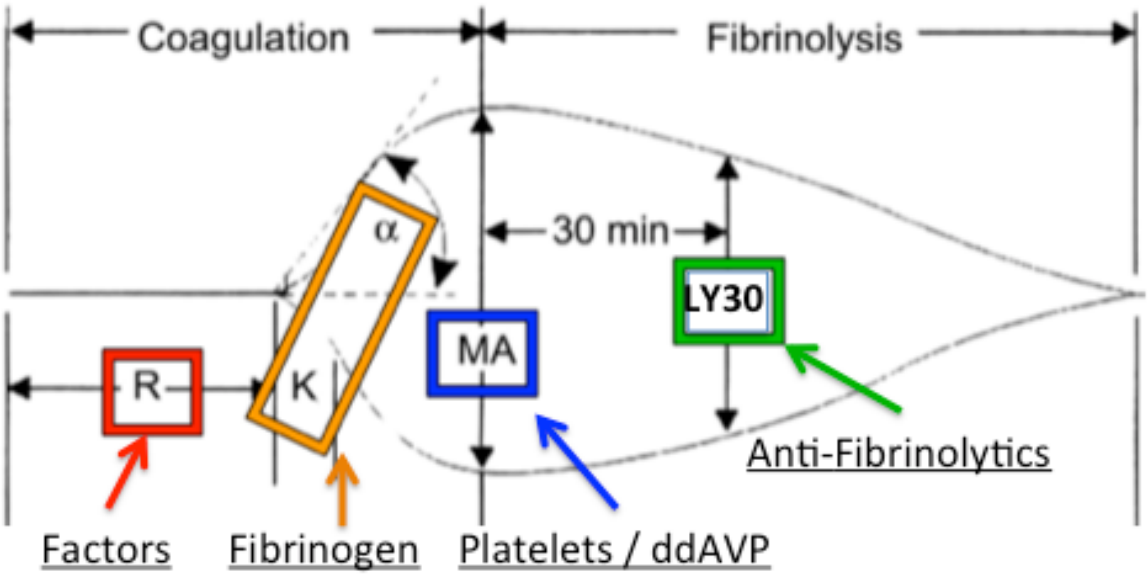
I – **TEG is abnormal**. Clotting start time is delayed, but clot strength is supra normal. **Do not transfuse!** Strongly suspect residual heparin. **Review total heparin dose.** If patient BMI > 40, or received anti-thrombin III intraoperatively following very large doses of heparin, consider a protamine infusion of 50mg/hr for a maximum of 5 hours following the bolus dose of protamine. Also verify correction of pH, temperature and hypocalcaemia.

J – **TEG is abnormal**. Clotting start time is delayed and the clot is weak. **Transfuse 2 FFP and transfuse platelets** (If < 150 give 1 pack, If < 100 give 2 packs, If < 50 give 3 packs). If the patient has a high velocity lesion, or has ESRD, **transfuse ddAVP**. Otherwise for platelet dysfunction, give 2 packs of platelets.

K – **TEG is abnormal**. Clotting start time is delayed and clot is weak. **Follow same as J; also if fibrinogen is low give 1 unit of cryo.**

L, M, O – **TEG is abnormal**. Patient is hypercoagulable. **Do not transfuse clotting components**. If DIC, or HIT, **consult hematologist as needed**. If patient on CPB, on ECMO, or has VAD, **verify adequate heparinization.** Patient may need AT III if no response with escalating heparin doses.

P, Q – **TEG is abnormal**. Clotting start time is fast, however clot is weak. Likely von Willebrand factor deficiency. **Administer ddAVP**. If thrombocytopenia, transfuse platelets (If < 150 give 1 pack, If < 100 give 2 packs, If < 50 give 3 packs).



Normal Thromboelastogram (TEG)		Values
R Time	5-10	min
MA	50 - 70	millimeters
K Time	1-3	min
Angle	53-72	degrees
LY30	0-8	%