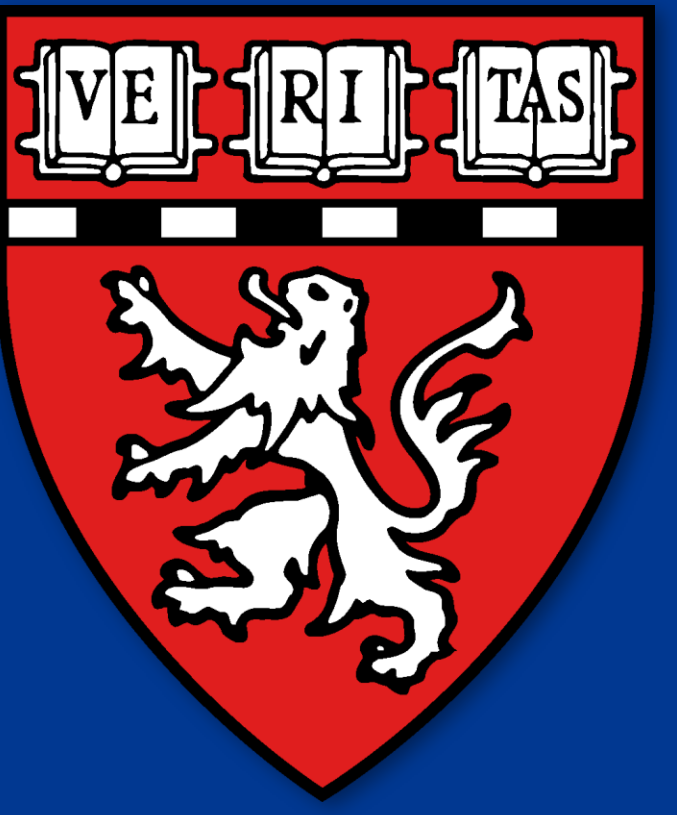




Balancing the Clot: Management of Disseminated Intravascular Coagulation with Thromboelastography during Intrapartum Cesarean Delivery



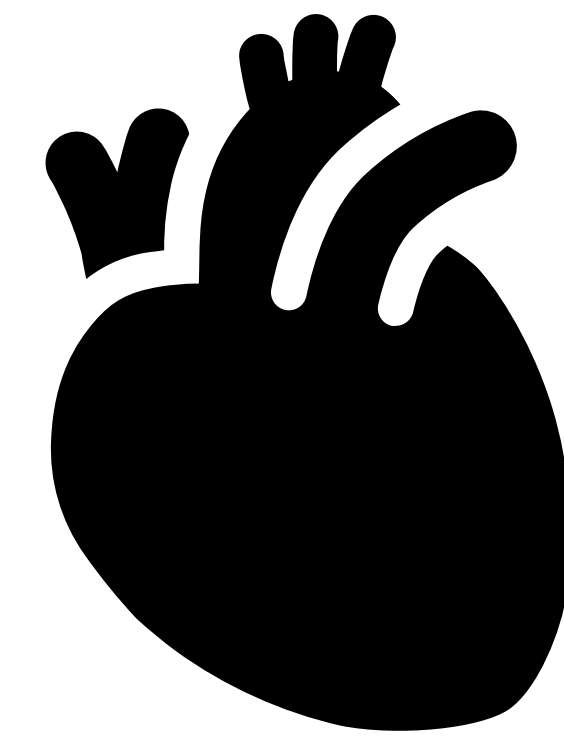
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Background

- Disseminated intravascular coagulation (DIC) involves dysregulated coagulation and fibrinolysis.
- Incidence of DIC in pregnancy is 0.02% to 0.07%
- Common causes include placental abruption, postpartum hemorrhage, pre-eclampsia, HELLP syndrome, acute fatty liver of pregnancy, amniotic fluid embolism, and sepsis.



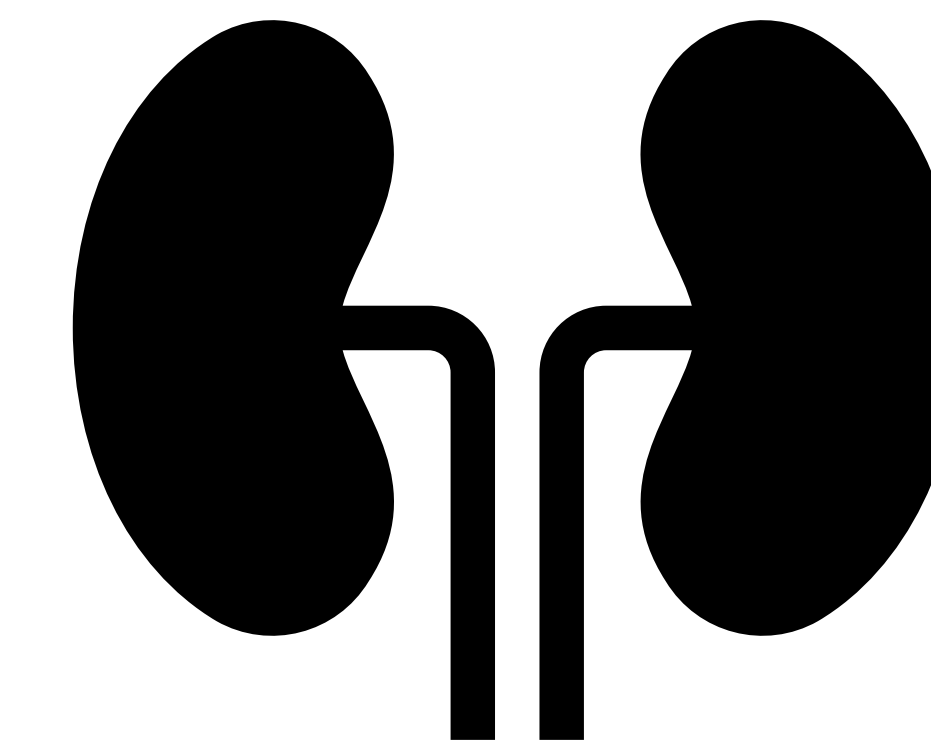
Altered mental status



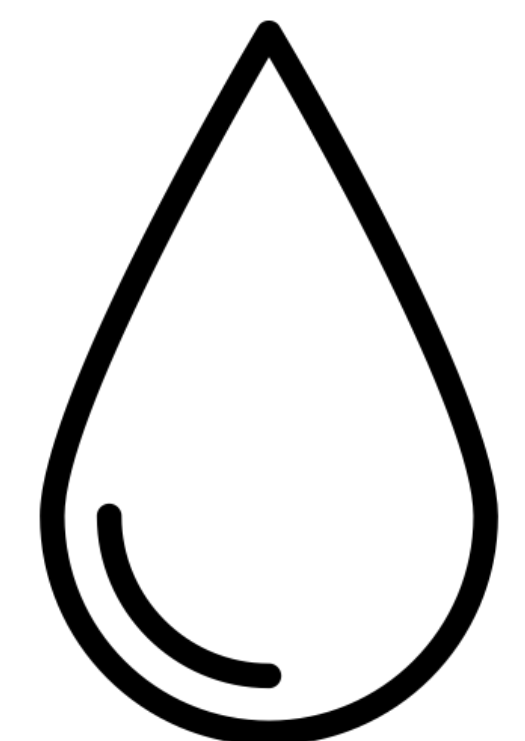
Shock, myocardial dysfunction



Oozing, petechiae or purpura fulminans



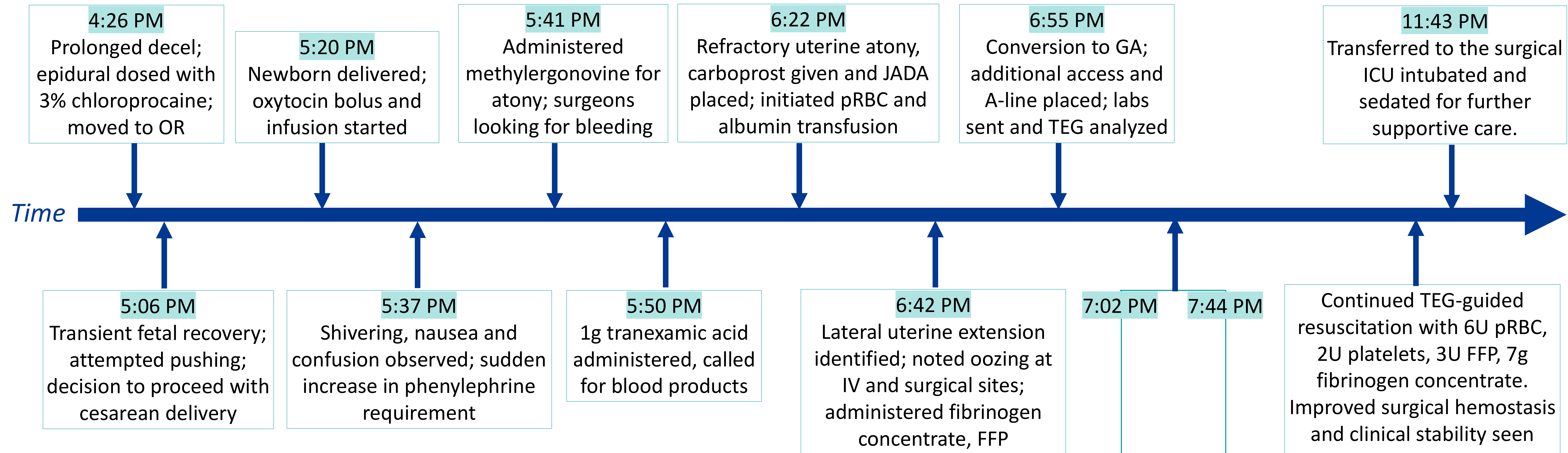
Oliguria, hematuria, cortical necrosis



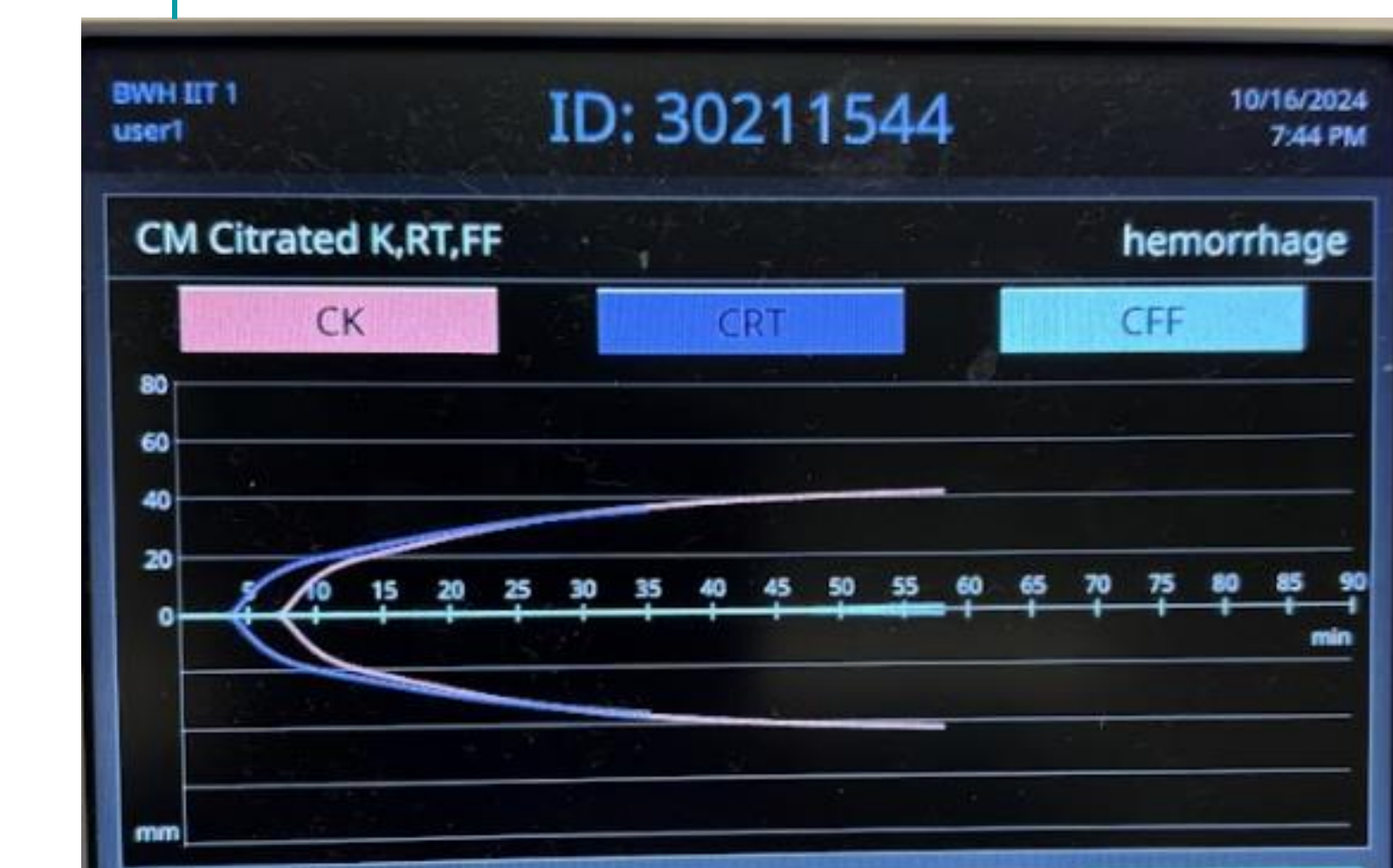
Consumptive coagulopathy

Case

Healthy 34 y/o G2P1 who underwent an intrapartum primary cesarean delivery with epidural anesthesia



	10/16/24 23:09	10/16/24 21:57	10/16/24 21:01	10/16/24 20:05	10/16/24 19:03	10/16/24 18:01
ROUTINE COAGULATI...						
PT	13.0	14.0 ▲	13.7 ▲	14.8 ▲	16.2 ▲	19.3 ▲
PT-INR	1.2 ▲	1.3 ▲	1.2 ▲	1.3 ▲	1.5 ▲	1.7 ▲
PTT	33.4	33.5	35.7	43.5 ▲	42.4 ▲	42.7 ▲
Fibrinogen	241	203	199 ▼	119 ▼	105 ▼	46 ▼



Discussion

Treatment

- Treat underlying cause
- Resuscitate actively bleeding patients with blood products
- Target hemoglobin > 7 g/dL, fibrinogen > 200 mg/dL, platelets > 50,000 K/ μ L, PT / PTT < 1.5x of control
- Avoid hypothermia, acidosis

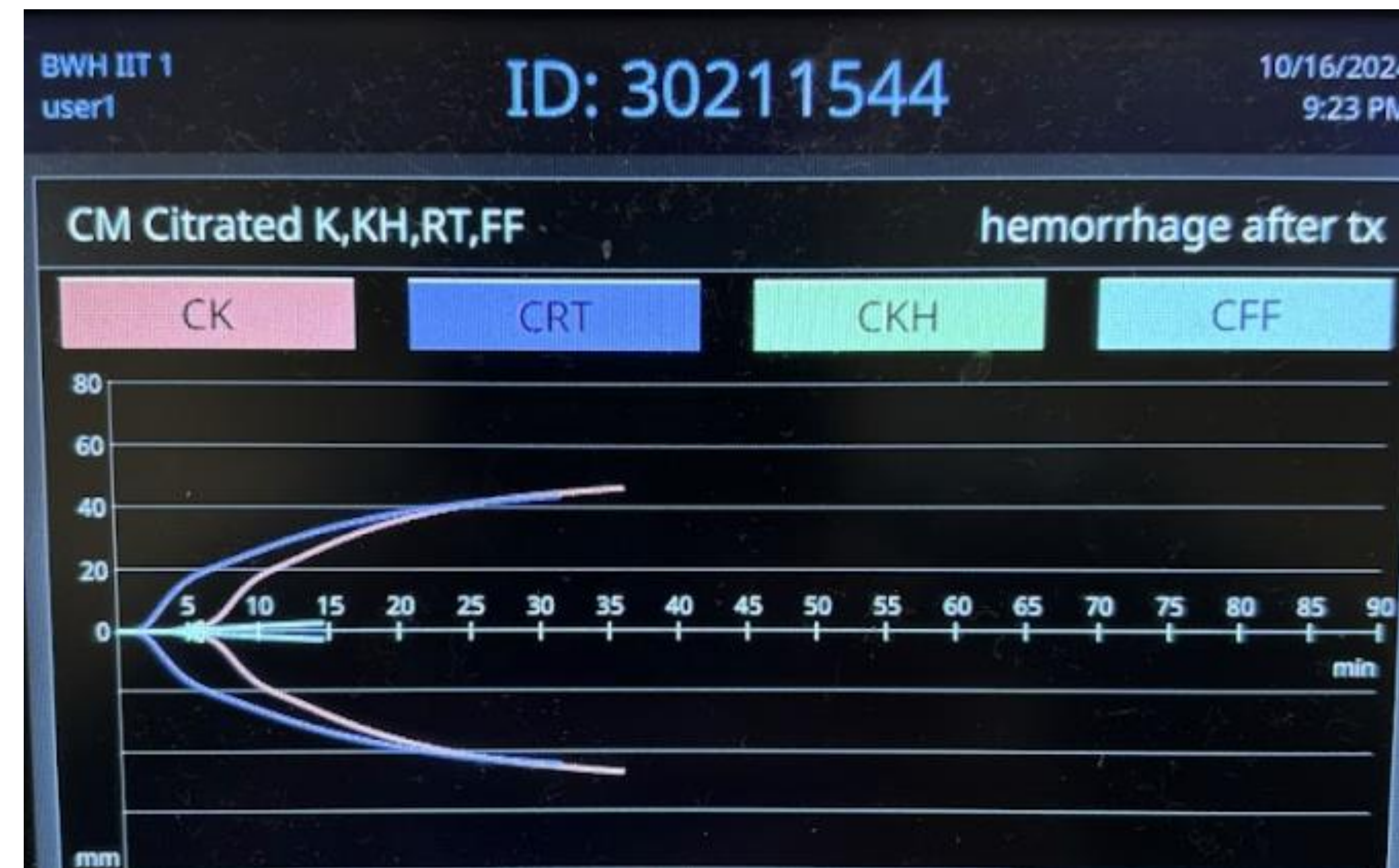


Figure: TEG measurements after initial resuscitation

Laboratory Findings

- CBC, coagulation tests should be sent early and regularly but may take time to result
- Flat citrated functional fibrinogen level within ten minutes led to aggressive fibrinogen replacement.

Conclusion

Thromboelastography can be a powerful tool for guiding early, targeted resuscitation.

Newer generation multichannel cartridges are easy to use and reliable.

Targeted resuscitation may decrease maternal morbidity by improving hemostasis and attenuating end-organ damage.