UW Medicine

INTRAVENOUS HEPARIN PROTOCOL

Check orders to determine which algorithm to use

ULTRA LOW Intensity
(Anti-Xa Goal: 0.1 - 0.3 units/mL)

ANTI-Xa LEVEL (units/mL)	RE-BOLUS	INFUSION HOLD TIME	CHANGE INFUSION DOSE (units/kg/hr)	NEXT ANTI-Xa LEVEL
< 0.1 Notify provider for 2 consecutive Anti-Xa < 0.1	None	None	Increase by 2 units/kg/hr	6 hours
0.1 – 0.3	**None**	**None**	**NO CHANGE**	**6 hours**
0.31 – 0.4	None	None	Decrease by 1 units/kg/hr	6 hours
0.41 – 0.6	None	None	Decrease by 2 units/kg/hr	6 hours
0.61 – 0.8	None	60 min	Decrease by 3 units/kg/hr	6 hours
0.81 – 1	None	60 min	Decrease by 4 units/kg/hr	6 hours

Management of Anti-Xa level > 1 unit/mL

Anti-Xa Level	CHECK TIMING OF SAMPLE	INSTRUCTIONS
> 1 units/mL *(potentially contaminated or improperly timed sample)*	If < 6 hours since most recent rate change	Continue infusion at current rate, and repeat Anti-Xa at the appropriate time.
	If ≥ 6 hours since most recent rate change	1) TURN OFF HEPARIN INFUSION. 2) Repeat STAT Anti-Xa immediately using peripheral blood draw. 3) If repeat Anti-Xa ≤ 1 unit/mL, resume heparin according to heparin algorithm. If repeat Anti-Xa > 1 unit/mL, follow steps below
> 1 units/mL *(properly timed, non-contaminated sample)*	1) TURN OFF HEPARIN INFUSION, and NOTIFY PROVIDER. 2) Repeat STAT Anti-Xa hourly using peripheral blood draw until Anti-Xa level is ≤ 0.5 unit/mL. 3) Then, resume infusion at DECREASED dose that is 5 units/kg/hr lower than previous dose and repeat Anti-Xa in 6 hours.	

Restarting heparin after it is turned off for procedure or surgery

- Confirm with provider that heparin infusion is to be re-started following procedure or surgery
- Confirm with provider the dose and time at which heparin should be re-started *(this should take into account the dose that the patient was receiving prior to procedure or surgery)*
- Confirm with provider the heparin algorithm that the patient should be treated with (goal Anti-Xa 0.1-0.3 units/mL vs 0.3-0.5 units/mL vs 0.3-0.7 units/mL)