Heparin Drip Calculation

Patient weight:145.4 kg

- Heparin supplied: 25,000 units/250 mL D5W
- Give Heparin 75 units/kg IV bolus/15 min (max dose 7000 units).
- Then begin infusion at 15 units/kg/hr; PTT 6 hours after bolus

1. Initial bolus?
2. Then rate [ml/hr]
3. 6 hours after - PTT is 37, now what? [ml/hr]
4. 6 hours later - PTT is 103, now what? [ml/hr]

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aPTT	Bolus	Hold Infusion	Rate Change	Repeat aPTT
<30	60 units/kg/hr (max 5000 units)	0	Increase by 2 units/kg/hr	6 hrs
30-49	30 units/kg (max 5000 units)	0	Increase by 1 unit/kg/hr	6 hrs
50-70	None	0	No change	Every 6 hours x 2; if therapeutic every AM
71-95	None	0	Decrease by 2 units/kg/hr	6 hrs
>95	None	60 minutes	Decrease by 3 units/kg/hr	6 hrs

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Answers:

1. 10,905 units BUT only give **7000 units – read the instructions carefully**
2. 15 x 145.4 = 2181; $\frac{2181}{X} = \frac{25{,}000}{250} = \frac{545{,}240}{25{,}000}$ = 21.81 ml/hr

3. PTT is 37 – order states bolus 30 units/kg, so 30 x 145.4 = bolus 4 of 362 units, do not hold infusion, then increase rate by 1 unit/kg/hr (from previous) so now 16 x 145.4 = 2326.4 = (see how to set up calculation in step 2) 23.2 ml/hr

4. PTT is 103 - Turn off pump for 60 minutes and then decrease by 3 units/kg/hr. , then 19 ml/hr (from previous) so now 13 x 145.4 = 1890 = (see how to set up calculation in step 2) 18.9 ml/hr