

Titration Lab Station

A patient diagnosed with sepsis is to receive Vancomycin 1 Gm IVPB now.

What information does the nurse need to know prior to administering the dose?

What does peak level mean?

What does trough level mean?

Why are they important?

Prime and administer the medication.

Hypotension

The patient progresses to septic shock. Current BP 78/50 (59).

Review and initiate the following order. Work calculations and then start pump.

Order: Norepinephrine (Levophed) 8 mg in 500 mL NS

Initiate infusion at 5 mcg/min and titrate by 1 – 5 mcg/min every 5 minutes to keep MAP \geq 65 mm HG

Check vital signs every 15 minutes with titration, then every 1 hour and PRN

Recommended maximum dose: 50 mcg/min

After 5 more minutes the BP is 82/40 (54). What should you do now?

Why is it important to assess the patient's fluid status prior to administering a vasopressor like norepinephrine?

Sedation

The patient was intubated and placed on a mechanical ventilator. Now needs IV sedation. Weight 198 lbs.

Review and initiate the following order. Work calculations and then start pump.

Order: Propofol (Diprivan): 1000 mg in 100 mL

Initiate infusion at 5 mcg/kg/min and titrate by 5 - 10 mcg/kg/min every 5 minutes to RASS Score of 0 to -2

Recommended maximum dose: 70 mcg/kg/min

Change IV tubing every 12 hours. Order triglyceride level on every 4th day if drip continues.

Richmond Agitation and Sedation Scale (RASS)		
+4	Combative	violent, immediate danger to staff
+3	Very Agitated	Pulls or removes tube(s) or catheter(s); aggressive
+2	Agitated	Frequent non-purposeful movement, fights ventilator
+1	Restless	Anxious, apprehensive but movements not aggressive or vigorous
0	Alert & calm	
-1	Drowsy	Not fully alert, but has sustained awakening to voice (eye opening & contact ≥ 10 sec)
-2	Light sedation	Briefly awakens to voice (eye opening & contact < 10 sec)
-3	Moderate sedation	Movement or eye-opening to voice (but no eye contact)
-4	Deep sedation	No response to voice, but movement or eye opening to physical stimulation
-5	Unarousable	No response to voice or physical stimulation

The patient continues to pull at the wrist restraints, gag on the ETT, and try to sit up despite your calming reassurance. What is the patient’s Richmond Agitation Sedation Scale (RASS) score?

What is the RASS goal?

What should you do now?

4 hours later you turn the Propofol infusion off for 3 to 5 minutes for a “sedation vacation”. What is the priority assessment?

The patient nods appropriately that they are in pain. What should you do next? How do you assess pain when a patient is under sedation like Propofol?

Hypertensive Patient

A post op cardiovascular patient has a BP of 180/90

Review and initiate the following order. Work calculations and then prime tubing and start pump.

Order: Nicardipine (Cardene) 40 mg in 200 mL NS

Initiate infusion at 5 mg/hr and titrate by 1 – 2.5 mg/hr every 15 minutes to keep SBP less than 150 mmHG

Check vital signs every 15 minutes with titration, then every 1 hour and PRN.

Recommended Maximum dose: 15 mg/hr

After 15 minutes the BP is 170/80. What should you do now?

When should you notify the health care provider that the nicardipine is ineffective?

What are contributing factors to increased BP that you might be able to affect?