DOSAGE CALCULATION FOR INOTROPES

Drug calculation by weight (weight based calculation for inotrope administration)

$$\frac{\text{Patient weight (kg)} \times \text{mcg/kg/min} \times 60 \text{ mins}}{\text{Total micrograms in bag}} \times \text{vol of diluent (mls)} = \text{ml/hour}$$

1) The physician prescribed Dopamine drip at 10mcg/kg/min. The patients weight is 55kg. Dilution is 800mg /500ml. What will be the infusion rate?

Sol: $\frac{O}{A} \times V$

$$= \frac{10 \text{ mcg} \times 55 \text{ kg} \times 60}{800 \text{ mg}} \times 500\text{ml}$$

$$\frac{10 \text{ mcg} \times 55 \text{ kg} \times 60}{8{,}00{,}000 \text{ mcg}} \times 500\text{ml} = 20.62$$ **Ans = 21 ml/hr**

Continuous Infusion (weight based calculation)

When giving a constant amount of medication every minute for an extended period, continuous infusion calculation can be used.

1) A patient is ordered to start an IV Dopamine drip at 5 mcg/kg/min. The patient weighs 57 kg. You have a bag of Dopamine that reads 400 mg/250 mL. What will you set the IV pump drip rate (mL/hr) at?

Ans.

Step 1. 5 mcg x 57 Kg x 60 min / 400 mg x 250 mL

Step 2. 5 mcg x 57 Kg x 60 min / 400 mg x 1000 x 250 mL

Step 3. 17100 mcg / 400000 mcg x 250 mL = 10.7 mL / hour