

Nws 3400: Infusions

Order: Administer D5W IV @ 70ml/h for 24 hrs. The initial flow rate was correctly set using micro-drip tubing. After 4 hrs, the infusion is off schedule with 600 mL remaining in the initial 1 L bag. Your facility policy is to notify the ordering physician if flow rates require adjusting more than 25% of the original rate.

$$\begin{array}{r} 1000\text{ mL} \\ - 600\text{ mL} \\ \hline 400\text{ mL} \end{array}$$

* Calculate new flow rate in mcgtt/min so infusion will finish on time.

$$\begin{array}{r|l} 24\text{h} & 70\text{ mL} \\ \hline & 1\text{h} \end{array} = 1680\text{ mL}$$

$$\begin{array}{r} - 400\text{ mL} \\ \hline 1280\text{ mL} \end{array}$$

$$\begin{array}{r|l|l} 1280\text{ mL} & 1\text{h} & 60\text{ mcgtt} \\ \hline 20\text{ hr} & 60\text{ min} & 1\text{ mL} \end{array} = 64\text{ mcgtt/min}$$

* Calculate the adjustment for flow rate allowed by the facility.

$$\begin{array}{r|l|l} 70\text{ mL} & 1\text{h} & 60\text{ mcgtt} \\ \hline 1\text{h} & 60\text{ min} & 1\text{ mL} \end{array} = 70\text{ mcgtt/min}$$

$$70(0.25) = 17.5\text{ mcgtt/min} \rightarrow 18\text{ mcgtt/min}$$

$$\begin{array}{l} 70 + 18 = 88 \\ 70 - 18 = 52 \end{array}$$

$$\boxed{52 - 88\text{ mcgtt/min}}$$

↓
64