PEDAGOGY
CONTINUING NURSE EDUCATION

GUIDE TO CALCULATING IV DRIP RATES

TERMS:

Drop Factor: # of drops per mL of solution; may be found on tubing package
Microdrop: 60 gtts/mL; used for small or precise infusions
Macrodrip: 10-20 gtts/mL; used for quick or large infusions

Calculating the Number of mL to Infuse Per Hour

FORMULA:

$$\frac{\textbf{Volume (mL)}}{\textbf{Time (hrs)}} = \textbf{mL per hour}$$

EXAMPLE:

$$\frac{1{,}000 \text{ mL}}{8 \text{ hrs}} = \textbf{125 mL per hour}$$

Calculating the IV Flow Rate in Drops Per Minute

FORMULA:

$$\frac{\textbf{Volume (mL)}}{\textbf{Time (mins)}} \times \textbf{Drop Factor (gtts/mL)} = \textbf{IV Flow Rate per Min (gtts/min)}$$

EXAMPLE:

$$\frac{1{,}000 \text{ mL}}{(8 \text{ hrs} \times 60 \text{ mins})} \times 15 \text{ gtts/mL} = \textbf{31.25 gtts/min rounded to 31 gtts/min}$$