

**GLENDALE COMMUNITY COLLEGE**  
**EMT Department**  
**IV Monitoring Curriculum for BLS Providers**

REV. 5/08

1. Purpose of IVs in Prehospital Setting
  - A.
  - B.
2. IV Monitoring Scope
  - A. EMTs can monitor IVs only during \_\_\_\_\_.
  - B. The patient must be \_\_\_\_\_.
  - C. The IV can not have any added \_\_\_\_\_.
3. Types of IV Fluid
  - A.
  - B.
  - C.
  - D.
4. IV Catheters
  - A. Standard medical size \_\_\_\_\_
  - B. Trauma patients \_\_\_\_\_
  - C. Elderly, Peds \_\_\_\_\_
5. IV Tubing
  - A. There are three different sizes of IV tubing:
    1. \_\_\_\_\_, also known as Macro tubing.
    2. \_\_\_\_\_, not often used in prehospital.
    3. \_\_\_\_\_, also known as Micro tubing.
  - B. Drop factors for IV tubing
    1. Drops is abbreviated: \_\_\_\_\_.
    2. A tubing's gtts factor reflects the number of gtts per \_\_\_\_\_.
    3. The gtts factor for blood tubing is: \_\_\_\_\_ gtts per ml (cc).
    4. The gtts factor for adult tubing is: \_\_\_\_\_ or \_\_\_\_\_ gtts per ml (cc).
    5. The gtts factor for pediatric tubing is: \_\_\_\_\_ gtts per ml (cc).
6. IV Flow Rate Calculations
  - A. Three pieces of information are needed to calculate IV flow rates:  
(1) \_\_\_\_\_ X (2) \_\_\_\_\_ divided by (3) \_\_\_\_\_.
  - B. The result = the number of gtts per \_\_\_\_\_.
  - C. *Example:* you are ordered to monitor an IV of D<sub>5</sub>W at 125 cc/hr with pediatric tubing.  
$$125 \times 60 \text{ div. by } 60 = 125 \text{ gtts / minute}$$
7. Trouble Shooting Ivs
  - A. Assessing for infiltration
    - 1.
    - 2.
    - 3.
  - B. Flushing the IV site
    1. Flush the IV as a last resort, using a \_\_\_\_\_ syringe.
  - C. If IV is infiltrated, then it should be \_\_\_\_\_ during transport.
8. Additional IV Monitoring Content
  - A. Permanent indwelling catheters
  - B. Analgesic Pumps
    1. Narcotic overdose

## KEY

1. Purpose of IVs in Prehospital Setting
  - A. ROUTE FOR MEDS
  - B. ROUTE FOR FLUIDS
2. IV Monitoring Scope
  - A. EMTs can monitor IVs only during INTERFACILITY TRANSPORT.
  - B. The patient must be STABLE.
  - C. The IV can not have any added VITAMINS, MINERALS, DRUGS.
3. Types of IV Fluid
  - A. 0.9% SODIUM CHLORIDE (NORMAL SALINE)
  - B. LACTATED RINGERS
  - C. D5W
  - D. ANY COMBINATION OF ABOVE
4. IV Catheters
  - A. Standard medical size 18G
  - B. Trauma patients 14-16G
  - C. Elderly, Peds 20-22G
5. IV Tubing
  - A. There are three different sizes of IV tubing:
    1. BLOOD, also known as Macro tubing.
    2. ADULT, not often used in prehospital.
    3. PEDIATRIC, also known as Micro tubing.
  - B. Drop factors for IV tubing
    1. Drops is abbreviated: GTTS.
    2. A tubing's gtts factor reflects the number of gtts per ML.
    3. The gtts factor for blood tubing is: 10 gtts per ml (cc).
    4. The gtts factor for adult tubing is: 10, 15 or 20 gtts per ml (cc).
    5. The gtts factor for pediatric tubing is: 60 gtts per ml (cc).
6. IV Flow Rate Calculations
  - A. Three pieces of information are needed to calculate IV flow rates:  
(1)ORDERED RATE X (2)GTTS FACTOR divided by (3)MINUTES.
  - B. The result = the number of gtts per \_\_\_\_\_.
  - C. *Example: you are ordered to monitor an IV of D<sub>5</sub>W at 125 cc/hr with pediatric tubing.*  
  
$$125 \times 60 \text{ div. by } 60 = 125 \text{ gtts / minute}$$
  - D. *Example: you are ordered to monitor an IV of D<sub>5</sub>W at 125 cc/hr with pediatric tubing.*  
  
$$125 \times 60 \text{ div. by } 60 = 125 \text{ gtts / minute}$$
7. Trouble Shooting Ivs
  - C. Assessing for infiltration
    1. PAIN
    2. REDNESS
    3. SWELLING
  - D. Flushing the IV site
    2. Flush the IV as a last resort, using a 3ML syringe.
  - C. If IV is infiltrated, then it should be DISCONTINUED during transport.