

Intravenous Therapy

Action: IV therapy involves administering fluids via IV catheter to administer medications, supplement fluid intake, give fluid replacement, electrolytes, or nutrients.

Mixed IV meds in a large volume of fluid are given continuously or intermittently in small amounts of fluid.

IV bolus are given in small amounts of solution (concentrated or diluted) and are injected over a short time (1-2 minutes) depending on the medication

IV Solutions

Isonotic	Have same osmolality as body fluids; can cause increased risk for fluid overload
Hypotonic	Can exacerbate a hypotensive state
Hypertonic	Irritating to the vein; can cause increased risk of heart failure and pulmonary edema

Advantaged

- Rapid effects; Precise amounts
- Less discomfort after initial insertion
- Constant therapeutic levels
- Less irritation to subcutaneous and muscle tissue
- Permits use of large volumes of fluid for meds that need more fluid to dissolve
- Permits use of meds that contain irritant properties such as chemotherapy

Disadvantages

- Fluid overload is possible if the infusion is too large or rapid
- Immediate absorption leaves little time to correct errors
- IV fluid administration can irritate the lining of the vein
- Failure to maintain surgical asepsis can lead to local and systemic infection

Considerations

Older Adults; Taking anticoagulants; fragile veins	Avoid tourniquets. use BP cuff to prevent hematoma formation
	Instruct patient to hold hand below heart level
	Avoid using the back of patients hand
	Avoid rigorous friction while cleaning the site
Edema in extremities	Apply pressure over selected vein to displace edema
	Apply pressure with alcohol pad
	Cannulate vein quickly
Obese	Use anatomical landmarks to find veins

Guidelines

- Add medications to a new IV fluid container, not to one that's already hanging
- Never administer IV medications through tubing that is infusing blood/blood products/parenteral nutrition solutions
- Verify compatibility of meds with IV solutions before infusing a med through tubing that is infusing IV solution
- Ensure the IV is patent before administration.
- Flush before and after administration
- Perform assessments prior to administration

