

### 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

