

To prepare for your upcoming exam, focus your review on the following core concepts. These topics will guide your studying and ensure you're ready for both clinical application and theoretical knowledge. Be sure to understand not just what to do, but why each step or intervention is important.

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## 1. IV Therapy & Medication Administration

- IV Catheter Insertion
  - Steps for proper IV insertion
  - Identifying the flashback of blood and when to advance the catheter
  - IV Push, IVPB, and Continuous Infusions
  - Proper technique for IV push medications, especially via CVADs
  - Administration steps for IVPB (secondary) medications
  - Importance of checking medication compatibility with continuous fluids
  - Antibiotics and High-Risk Medications
  - Recognizing signs of allergic reactions and anaphylaxis
  - Understanding peak and trough levels and lab monitoring
  - Extravasation and Vesicant Drugs
  - Definitions, causes, and how to manage vesicant drug administration
  - IV Medication Compatibility
  - How to verify compatibility of IV medications
  - Actions to take if medications are incompatible
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## 2. IV Site Management & Complications

- Phlebitis
- Recognizing signs and symptoms
- Immediate nursing interventions
- Infiltration
- Differentiating infiltration from extravasation
- Management, interventions, and discontinuing the IV safely

- Vein Selection
  - Which veins to avoid and why (e.g., dialysis grafts, previously used sites)
  - Preferred IV sites for specific treatments (e.g., blood transfusions)
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### 3. Fluid & Electrolyte Balance

- Hydration & Fluid Status
  - Monitoring intake/output, daily weights, and vital signs
  - Risks of fluid deficit (e.g., dehydration, hypovolemia)
  - Signs of fluid overload (e.g., crackles, bounding pulses)
  - Types of IV Fluids
  - Choosing fluids based on patient condition
  - Understanding isotonic, hypotonic, and hypertonic solutions
  - How hypertonic solutions cause fluid shifts
  - Hydrostatic & Oncotic Pressure
  - Definitions and roles in fluid movement
  - Connection to albumin and third spacing
  - Albumin and Third Spacing
  - Role of albumin in fluid balance
  - Causes and signs of third spacing
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### 4. Lab Interpretation & Diagnostic Testing

- Key Lab Panels
- Complete Blood Count (CBC)
- Comprehensive Metabolic Panel (CMP)
- Monitoring for Specific Conditions
- Elevated amylase/lipase for pancreatitis
- ALT/AST and bilirubin in liver dysfunction
- BUN/creatinine in renal failure

- Coagulation and Anticoagulation
  - Understanding PTT, PT, platelet counts
  - Monitoring heparin therapy and bleeding risk
  - Serum Osmolarity & Electrolytes
  - How to calculate and interpret serum osmolarity
  - Impact of sodium and potassium on fluid balance and cardiac function
  - Anemia and Neutropenia
  - Recognizing signs and related lab values
  - Importance in chemotherapy and blood loss situations
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## 5. Phlebotomy & Blood Collection

- Best Practices in Blood Draws
  - Venipuncture success techniques
  - How to minimize hemolysis
  - Preferred sites and how to manage difficult veins
  - Drawing from CVADs and PICC Lines
  - Flushing and discarding protocols
  - Importance of aseptic technique
  - Blood Transfusions
  - Appropriate IV catheter sizes and site selection
  - Monitoring before, during, and after transfusion
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## 6. Special Considerations in Patient Care

- Orthostatic Hypotension
- Recognizing causes (e.g., hypovolemia)
- Patient safety strategies
- Dehydration from Nausea, Vomiting, and Diarrhea
- Oral and IV hydration strategies

- Avoiding inappropriate fluids like sugary juices or sports drinks
  - Trypanophobia (Needle Phobia)
  - Techniques to reduce anxiety and support the patient
  - Importance of an empathetic and calm approach
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Final Tip:

Review not just the steps, but the reasoning behind nursing interventions. Think critically about what you would do, why it matters, and what the patient's response would be. This will prepare you for both the exam and real-life clinical practice.