PHM 118
STERILE PRODUCTS

COURSE DESCRIPTION:

Prerequisites: PHM 110, PHM 111, and PHM 115
Corequisites: Pqpg

This course provides an introduction to intravenous admixture preparation and other sterile products, including total parenteral nutrition and chemotherapy. Topics include aseptic techniques; facilities, equipment, and supplies

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PHM 118

III. Facilities, equipment, and supplies used in admixture preparations
    A. Overall organization of the sterile compounding area
    B. Use of horizontal and vertical laminar flow hoods, biological safety cabinets, automated pumps and compounding equipment
    C. Use of syringes, needles, vials, ampules, double needles, and filters
    D. Flexible plastic bags and bottles

IV. Laminar flow hoods
    A. Theory of laminar air flow
    B. Positioning of supplies in horizontal flow hood
    C. Positioning of supplies in vertical flow hood
    D. Use of biological cabinet
    E. Practice aseptic compounding in the horizontal and vertical flow hoods and biological safety cabinets

V. Immunizations and irrigating solutions
    A. Storage of biological products
    B. Commonly used irrigating solutions
    C. Compounding irrigating admixtures

VI. Intermittent and continuous infusions
    A. Intravenous administration of IV fluids
    B. Types of available IV fluids used in intermittent and continuous infusions
    C. Types of medications given by IV infusion
    D. Appropriate labeling and recordkeeping
    E. Admixture calculations
    F. Flow rate calculations
    G. Quality assurance documentation
    H. Medication order interpretation and Ascend-IP computer entry of orders
    I. IV administration sets
    J. Assembly of Add-Vantage systems

VII. Stability and incompatibility issues related to admixtures
    A. Assigning expiration dates to admixtures
    B. Products requiring protection from light
    C. Types of admixture incompatibilities
    D. Reference sources on compatibility and incompatibility information
    E. Visual inspection of admixtures

VIII. Total parenteral nutrition admixtures
    A. Order interpretation and Ascend-IP computer entry of medication order
    B. Review of TPN calculations
    C. Typical solutions and additives used in TPN compounding
    D. Aseptic techniques used in TPN compounding

E. Gravity method vs. automated compounding equipment
F. Labeling and recordkeeping
G. Quality assurance documentation
H. Indications of use for TPN therapy
I. Indications of use for PPN (partial/peripheral parenteral nutrition)
J. Adverse reactions associated with TPN/PPN therapies
K. Electrolyte incompatibility concerns

IX. Chemotherapy preparations
    A. Aseptic manipulations within biological safety cabinets
    B. Safe handling and disposal of cytotoxic drugs
    C. Use of hydrophobic filter needle units
    D. Order interpretation and Ascend-IP computer entry of medication orders
    E. Product labeling and recordkeeping
    F. Quality assurance documentation
    G. Importance of product and personnel protection
    H. Commonly prescribed chemotherapeutic agents

REQUIRED TEXTBOOKS AND MATERIALS:

Manual for Pharmacy Technicians. American Society of Health-System Pharmacists. 4th ed. 2010.
Baxter's Blue Book-Training Manual for Intravenous Admixture Personnel. 6th edition 2009; enrolled students will have online access to text.

STATEMENT FOR STUDENTS WITH DISABILITIES:

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