

Nurse Compounding

PURPOSE:

To provide guidelines for nurse / non-pharmacy admixture in the alternate setting.

POLICY

1. Medications shall be admixed upon order of a physician or authorized prescriber.
2. Aseptic admixture by the RN shall occur only when pharmacy services are unavailable or when medication has short stability.
3. Commercially available products which are manufactured and packaged as a single, sterile unit and “mixed” immediately prior to use, (for example, Mini-Bag Plus) are not included in the requirements for this policy.
4. Admixture shall occur immediately prior to administration except in the rare drug specific protocols that require the drug to be prepared in advance for patient safety.
5. Use standard concentrations of premixed solutions and dosing rate charts when possible to facilitate infusion rate calculations.
6. Admixing shall be completed by a nurse competent in the procedure. The nurse shall be knowledgeable in aseptic manipulation, operating procedures and equipment. The nurse shall also have knowledge of basic calculations: dose, rate, concentration to compound medications and program the pump (if applicable).
7. The nurse shall verify chemical, physical, and therapeutic compatibilities and stabilities prior to mixing medications and solutions.
8. Admixture shall be done as an aseptic procedure, which includes prevention of touch contamination.
9. Each nurse must be observed and skills confirmed by a qualified clinician, preferably a pharmacist, prior to compounding in an alternate site or teaching patients to compound. A qualified clinician is one that has had their compounding skills verified by a pharmacist. Outside subcontracted nursing agency’s clinical staff competence with this policy is their responsibility, but must be verified prior to assigning our patient care to them that requires nurse compounding.

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EQUIPMENT / SUPPLIES:

Antimicrobial soap

Sharps or waste container

Gloves

Alcohol swabs

Admixture supplies: filter needles, syringes, needles or needleless adapter, transfer device, etc.

Medication vials or ampules

Diluent for administration

Medication added labels

PROCEDURE

1. Review order.
2. Verify patient's identity and assess history of medication allergies.
3. Assemble medication and supplies, check appropriate type and size of supplies.
4. Wash hands, dry with paper towel. Don gloves.
5. Identify medication to be added to solution.
6. Check manufacturer expiration dates, lot numbers and defects on all products used in mixing.
7. Verify and check orders and all labels to confirm appropriateness of dose and parenteral route and use.
8. Clean **all** rubber stoppers or ampule necks using alcohol swabs.
9. Place **all** containers on a clean, flat surface.
10. Manipulate syringe parts appropriately, not touching critical site areas. All aseptic manipulations are performed in a manner to show obvious effort to prevent touch contamination.
11. Understand the concept of positive pressure when appropriate. (Add the same amount of air into the vial before drawing out solution).

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12. Withdraw contents from medication vial, using appropriate size syringes or needleless adapter.
 - a. Use a filter needle or straw when withdrawing medication from glass ampules.
 - b. Carefully check the measured volume relative to the amount ordered.
 - c. If using a filter needle, after withdrawing and checking the medication, discard filter needle and attach new or needleless adapter.
 - d. Insert needle or needleless adapter into port of administration container and inject contents of syringe.
 - e. Remove syringe and gently agitate container.
- OR**
- a. Use a transfer device and gently agitate the container.
13. When compounding more than one medication in the same container:
 - a. Add one medication at a time.
 - b. Add the most concentrated or most soluble drug first.
 - c. Add colored additive last so as not to mask development of precipitate.
 - d. Visually inspect container after each additive to check for development of precipitate or other defects.
14. Label container with the following:
 - a. Patient name, ID number, and birth date.
 - b. Date and time mixed.
 - c. Medications: trade and generic names.
 - d. Dosage and concentration.
 - e. Discard / expiration date and time.
 - f. Route of administration.
 - g. Flow rate of administration.
 - h. Other special instructions.
 - i. Name of compounding nurse.
15. After admixture:
 - a. Discard expended equipment in appropriate containers.
 - b. Remove gloves and wash hands.
 - c. Document in patient's medical record.
16. When applicable, and with a physician's order, the nurse is able to verbalize and teach these compounding procedures to a patient / caregiver.

RESPONSIBILITY

The Clinical Specialist and Director of Pharmacy have responsibility for approval of, compliance with, and revisions to this policy.

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MODIFICATION/REVISION

This policy is subject to modification or revision in part or its entirety to reflect changes in conditions subsequent to the effective date of this policy.

REFERENCES

1. Infusion Nursing Standards of Practice – Revised 2016; Journal of Infusion Nursing, Supplement to January/February 2016, Volume 39, Number 1S.
2. Infusion Nursing: An Evidence-Based Approach, Third Edition edited by Mary Alexander, Ann Corrigan, Lisa Gorski, Judy Hankins, and Roxanne Perucca.
3. INS (Infusion Nurses Society) Policies and Procedures for Infusion Nursing, 3rd Edition.