

Title	Adminstration of Medications				
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Department					
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Owner	Alician Driscoll (Director Pharmacy- CMH Pharmacy)				
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I. POLICY:

All medications shall be administered by qualified personnel.

II. PURPOSE:

To provide guidelines for safe administration of ordered medications for personnel responsible for administering medications and intravenous solution according to the "five rights" - right patient, the right medication, in the right dosage, by the right route and at the right time.

III. SCOPE:

Applies to all UnityPoint Health Central IL Clinic Staff who administer medications.

IV. PERSONNEL:

- A. All medications shall be administered by, or under the supervision of, appropriately licensed or credentialed personnel in accordance with laws and government rules and regulations governing such acts in accordance with the approved UnityPoint Health Central IL clinic rules and regulations.
- B. Personnel authorized to administer medications include licensed independent practitioners, registered professional nurses, licensed practical nurses, CMAs, and student nurses under the supervision of a clinical professional nurse instructor.
- C. In order to pass medications, the authorized personnel must have had adequate theory and practice during their basic educational program or have successfully completed a course of instruction on medication administration.

V. GENERAL INFORMATION:

- A. The person administering the medication has the responsibility for knowing the purpose of the drug, the therapeutic dosage range, the contraindications and side effects, proper routes and compatibility.
- B. Before administration of medications the appropriate health care professional does the following:
 - 1. Correctly identifies the patient using two identifiers (patient name and birthdate).
 - 2. Verifies that the medication selected for administration is the correct one based on the medication order and product label.
 - 3. Verifies that the medication is stable based on visual examination for particulate or discoloration and the medication expired.
 - 4. Verifies there is no contraindication for administering the medication.
 - 5. Verifies the correct medication is given to the correct patient at the correct time, the prescribed dose and correct route.
 - 6. Advise the patient or family, if appropriate, about any potential clinically significant adverse drug reactions.
 - 7. All unresolved questions or concerns are addressed with the Licensed Independent Practitioner (LIP) prior to administration of medications.
- C. Aseptic technique shall be used when preparing medications. Each time the vial is accessed, wipe the stopper with alcohol prior to puncture.
- D. All Controlled Substances must be signed out on the Narcotic Inventory & Dispensing Log immediately upon removal from stock for those offices without Pyxis.
- E. Disposal for excess controlled drugs is documented on the Narcotic Inventory & Dispensing Log, or in the

Automated Dispensing Machine (ADM) . Authority to witness destruction of a controlled substance is limited to those individuals who are given authority to administer or dispense controlled substances, except in those offices where an ADM is not available and then an agent of the person authorized to administer or dispense controlled substances may witness the destruction (i.e. lab technician, clinical assistant, etc.)

- F. Controlled Substances must be accounted for on the Narcotic Inventory & Dispensing Log. A UnityPoint Health Central IL Clinic event report must be completed and sent to the Director of Pharmacy if any discrepancy in the inventory count occurs. (See UnityPoint Health Central IL Clinic Controlled Substance policy)
- G. Liquid medications will be dispensed in original containers. Shake liquid preparations before pouring. Pour liquids at eye level to calibration in a graduated container. Tamper evident seals are placed on all liquid bottles dispensed from the pharmacy.
- H. Use of multiple-dose vials should be avoided whenever possible. Expiration of multi-dose vials is determined by the manufactures' expiration date, pending inspections of the solution and the vial access is intact. Once the multi-dose vial has been initially accessed, it will be labeled with a Beyond Use Date of no more than 28 days (unless otherwise stated by the manufacturer). Discard outdated vials. Single doses, drawn into syringes from multi-dose vials, will be labeled with the name and strength of the medication. (See UnityPoint Health Central IL Clinic Label policy) The unused syringes will be discarded at the end of the day.
- I. Injectable medications brought in by the patient will only be allowed to be administered to the patient by UnityPoint Health Central IL Clinic staff if it is from a vial that is within date, the integrity of the drug has been inspected, and the vial access is intact. If the product is a multi-dose vial, and UnityPoint Health Central IL Clinic staff are the first to draw a dose from it, then the vial can be labeled with a 28 day Beyond Use Date (unless otherwise stated by the manufacturer). That vial will then need to be stored within the UnityPoint Health Central IL Clinic and only utilized up to the Beyond Use Date or the manufacturer's expiration date (whichever is sooner). This policy will not allow usage of a multi-dose vial brought in by a patient that appears to have been previously accessed. It will be encouraged to educate the patient or patient's caretaker on the proper way to self-administer the injectable medication. It is also encouraged that providers specify "single dose vial" when writing prescriptions if a multi-dose vial is not intended. *Allergy serums brought in by the patient may be administered – refer to Section V. I. below for additional guidance.*
- J. Check medication with the order during preparation.
- K. All patients will be assessed for drug allergies prior to medication administration.
- L. Stat and pre-procedure medications should be given as ordered.
- M. Emergency medications are found in office specific areas and in crash carts(only at Heart Lung Vascular Institute).
- N. When retrieving medications for administration from office stock medications the following will occur:
 - 1. Safe storage-Medications will be locked up
 - 2. Safe handling-Medications will be transported on trays or carried in hands, not in pockets
 - 3. Security of medication-Medications will not be left on counters
 - 4. Disposition of medication-Medications will be transported back to storage area immediately after use.

VI. PROCEDURE:

Contents:

- Oral medications (sublingual)
- How to Draw Up Medication from Glass Ampule
- Injectable Medications
- Rectal Suppositories
- Topical
- Preparing IV Medications and Solutions
- Administering IV Medications
- Use of IV filter
- Allergy injections administration

A. ORAL MEDICATION

- Equipment:
- Medication as ordered

Container for medication
Glass of H2O, juice or preferred liquid/straw

ACTIVITY

1. Verify medication ordered by LIP
2. Wash hands and gather necessary equipment.
3. Obtain medication from appropriate place.
4. Compare medication label with the order.
5. Determine amount of medication required.
6. Obtain proper container for the medication.
7. Pour medication directly into soufflé cup or graduated medicine cup.
8. Return medication supply to appropriate place.
9. Carry prepared medication to patient's exam room.
10. Explain procedure to patient and provide patient teaching as indicated.
11. Identify patient by comparing their name and birthdate with their medical record.
12. Act on any implications that are directly involved in administration of medication (e.g.: checking pulse before giving digitalis).
13. Prepare patient as needed to receive medication.
14. Administer drug properly.
 - a. Offer water if appropriate.
 - b. For sublingual-administered drugs, have patient place medication under tongue and allow it to dissolve completely.
 - c. For buccal-administered drugs, have patient place medication in mouth against mucous membranes of the cheek until it dissolves.
15. Remain with patient until each medication is swallowed.
16. Dispose of paper and plastic cups in wastebasket. Wash hands.
17. Record medication appropriately.
18. Record any refusals and notify the LIP.
19. Document all medications administered on the medication list/nurses progress notes.
20. Document medications given for pain including a description of the location, and type of pain, and patient response. (See Pain Policy).

B. HOW TO DRAW UP A MEDICATION FROM A GLASS AMPULE

Equipment:

Ampule of medication

5 micron 4 inch filter straw or 5 micron 1.7 inch straw

Syringe of appropriate size for drug dose

Gauze pads (or ampule breaker)

Alcohol swabs

Needle

ACTIVITY

1. Open package of gauze pads & place side by side in work area.
2. Wipe off ampule neck with alcohol swab.
3. Place another gauze pad around ampule top.
4. Hold ampule away from body.
5. Apply pressure on the bottom of ampule with your thumb. Pull back toward body causing a snapping effect with index finger and middle finger.
6. After top has been removed, place filter straw or needle into the ampule until it reaches the bottom.
7. Pull back on plunger of syringe.
8. Pull filter straw from ampule. Pull back on plunger (if possible) to pull solution from straw.
9. Push plunger up until solution meets top of syringe. This process may need to be repeated after filter straw is removed to make sure all bubbles are free from solution.
10. If your solution is not at volume in syringe needed, replace your filter straw into ampule and proceed as before.
11. Remove your filter straw and replace with needle/cannula.

C. IM, SQ INJECTABLE MEDICATIONS

Equipment:

Medication

Syringe

Needle/Cannula

Gauze

Alcohol Swab

ACTIVITY

1. Verify medication ordered by LIP
2. Wash hands and gather necessary equipment.
3. Obtain medication from appropriate place and check expiration date if appropriate.
4. Compare medication label with order.
5. Determine amount of medication required.
6. Obtain proper syringe/needle for the medication.
Usual needle sizes:
 - a. Subcutaneous 25g-5/8"
 - b. Insulin 26 g-1/2"
 - c. Intramuscular 22g-1 1/2"
7. Withdraw medication from vial and/or ampule aseptically, using alcohol to wipe the stopper prior to puncture. A filter straw may be used when withdrawing from an ampule.
8. Carry prepared medication to patient's exam room.
9. Explain procedure to patient and provide patient education as indicated.
10. Identify patient by checking the name and birth-date against the medical record.
11. Act on implications that are directly involved in administration of the medication.
12. Ascertain site of last injection.
13. Wash hands.
14. Position patient appropriately for the site chosen to administer specific medication.
15. Expose area of selected site. Method of administration differs for Heparin, Iron preparation Insulin, deep IM, etc.
16. Cleanse skin with alcohol pad in circular motion.
17. Hold skin in appropriate manner depending on type of medication.
18. Insert needle quickly at appropriate angle into cleansed site.
Usual angle of needle insertion
 - a. Subcutaneous and insulin at 45° to 90° with tissue drawn up between thumb and other fingers.
 - b. Intramuscular at 90° to the skin surface.
 - c. Z track: Draw up prescribed medication such as iron and add 0.2cc air to syringe. Remove 1st needle and attach 2nd needle. Displace patient's skin laterally by pulling about 1-1 1/2 inch away from injection site. Insert needle at 90° angle; administer medication and air slowly; wait 10 seconds and withdraw needle slowly. Release the displaced skin to seal the needle track.
19. Aspirate (pull back on the plunger) for IM injections. If no blood appears, inject the medication. If blood appears in the syringe, remove the needle and discard the medication. Obtain a new syringe and needle and try again. Aspiration is no longer a recommended practice for vaccines.
Vaccine administration
 - Use the vastus lateralis or deltoid muscle
 - Spread the skin taught between the thumb and forefinger over the selected muscle, or grasp the tissue and bunch up the muscle.
 - Inject the vaccine into the tissue and withdraw the needle. Because the recommended sites do not contain large vessels, aspiration is not necessary.
20. Do not aspirate when giving insulin subcutaneously.
21. Use an alcohol sponge to hold skin down at injection site while withdrawing needle quickly at same angle as insertion and activate safety glide.
22. Apply gentle pressure to the site; do not massage or rub the site unless instructed to do so. Assess the site and apply a bandage if needed.
23. Assist patient to a comfortable position.
24. Dispose of used syringe and needle in sharps container. Keep patient for 20 minutes after antibiotic injection or any other medication as ordered with specified time for observation.
25. Record medications appropriately in the medical record.
26. Record refusals in the medical record and advise LIP.
27. All injections are recorded in the medical record indicating time given, name of drug, dosage, route, and site of injection with signature of the nurse/LIP.
28. Document the administration of any medications in the medical record.

D. RECTAL SUPPOSITORIES

Equipment:

Rectal suppository

PPE

Tissue
Soufflé cup

ACTIVITY

1. Verify medication ordered by LIP.
2. Wash hands and gather necessary equipment.
3. Remove suppository from storage (may be refrigerator).
4. Compare label with medication order.
5. Drop small amount of surgical lubricant into soufflé cup.
6. Remove foil or wrapper if present.
7. Drop suppository into soufflé cup.
8. Explain procedure to patient and provide patient education as indicated.
9. Identify patient by the two patient identifiers.
10. Position patient on left side in Sims position and drape.
11. Wash hands and put on a glove.
12. Lubricate tip of suppository.
13. Expose anal area. Ask patient to take slow deep breaths through mouth.
14. Gently insert into anal opening, continue insertion with index finger as far as it will reach.
15. Clean patient with tissue and assist patient to a comfortable position.
16. Turn glove inside out as it is removed.
17. Wash hands thoroughly.
18. Record medication appropriately in medical record.

E. TOPICAL

Equipment:

Medication (powder, spray, cream, ointment, patch)

PPE

Tissue

Tape

ACTIVITY

1. Verify medication ordered by LIP.
2. Wash hands and gather necessary equipment.
3. Obtain medication from appropriate place.
4. Compare medication label with the order.
5. Obtain disposable gloves, cotton tipped applicator, or tongue blade as indicated.
6. Carry medication to exam room.
7. Explain procedure to patient and provide patient education as indicated.
8. Identify patient by using two patient identifiers.
9. Act on implications that are directly involved in administration of the medication.
10. Wash and dry affected area, removing all debris, crustations and previous medications unless contraindicated. Wash hands and put on gloves.
11. Apply topical agent
 - a. Cream, ointment, and oil based lotion: apply using long even strokes following the direction of hair growth.
 - b. Aerosol spray: Shake container vigorously. Read container's label for distance recommended to hold spray from area. Spray medication evenly over affected site.
 - c. Suspension-based lotion: Shake container vigorously. Apply evenly in direction of hair growth.
 - d. Powder: Dust dry skin lightly until area is covered.
12. Assist patient to a comfortable position.
13. Dispose of gloves, tongue blades, dressing etc. in appropriate container.
14. Wash hands thoroughly.
15. Record medication appropriately in medical record

F. PREPARING IV MEDICATIONS AND SOLUTIONS

The following guidelines are to be utilized in those special situations in that IV medications are prepared in the office setting.

Equipment:

Syringe Cannula

Needles

Medication label

IV solution or partial fill bag

Vial access cannula

Alcohol Swab

ACTIVITY

1. Wash hands.
2. Gather equipment and place in clean working area.
3. Prepare medication as directed.
4. Use vial access cannula to withdraw medication into a syringe. Recap using a recapping device or a one-handed method.
5. Cleanse rubber stopper on partial fill or solution bag with an alcohol pad.
6. Insert syringe cannula and inject medication into bag.
7. Withdraw syringe when all medication has been added. Dispose of syringe in Sharps container.
8. Attach completed medication label to bag or bottle. Include on label: drug added, amount of drug, your name, date, time, expiration date, patient's name, start time, start date, and flow rate. If more than one medication is added list all medications on one label.

G. ADMINISTERING IV MEDICATIONS

1. Intravenous push through Y injection site.
 - a. Cleanse resealable site closest to the IV site with alcohol insert syringe cannula into site.
 - b. Pinch off or temporarily clamp tubing above injection site.
 - c. Flush intravenous line with sodium chloride or bacteriostatic water if indicated.
 - d. Inject medication into tubing.
 - e. Flush IV line with sodium chloride or bacteriostatic water if indicated.
 - f. Unclamp tubing after medication and flush is injected.
 - g. Remove syringe and dispose of in Sharps container.
 - h. Resume prescribed rate of flow of IV.
 - i. Document in the medical record:
 - 1) time
 - 2) name of medication
 - 3) dosage
 - 4) initial

H. USE OF IV FILTERS

5 Micron Filter Straw are used to reduce particulate contamination of intravenous solutions. All drugs in glass ampules should be filtered with a 5 Micron filter straw prior to use to remove glass fragments that may have fallen into the drug solution when the ampule was broken.

- a. Attach the 5 Micron filter straw to the syringe.
- b. Tilt the straw into the ampule, taking care not to touch the ampule with the straw point around the neck where it was broken
- c. Position the straw in the shoulder area of the ampule.
- d. Withdraw solution
- e. Remove the filter straw from syringe and dispose of in a sharp's container.
- f. Administer medication as ordered.

I. ADMINISTRATION OF ALLERGY SERUMS

Equipment:

Patient Allergy Serum

Instruction sheet from allergist with orders

Documentation form

General Fact sheet for Allergy Serum (found in UnityPoint Health Central IL Clinic Forms)

ACTIVITY

1. Verify allergy serum has been appropriately transported by person or mailed and in original package.
2. Verify allergy orders are signed by ordering allergist/provider.
3. Educate patient/parent on appropriate handling/storage of allergy serum (give General Fact sheet on allergy serums)
4. Verify expiration date and the integrity of the vial.
5. Draw up allergy serum per physician's instruction sheet using appropriate size syringe/needle and using the 5 "R's".
6. Identify patient using the two patient identifiers.
7. See previous subcutaneous instructions.
8. Keep patient for 20 minutes after injection or as ordered with specified time for observation.
9. Record appropriately on documentation sheet in nurses' folder (nursing folder for patients' only receiving allergy injections at office).

10. Document patient education (if appropriate)

J. ADMINISTRATION of HAZARDOUS MEDICATIONS (Radioactive Isotope)

1. Nuclear medicine technical personnel shall have appropriate training concerning intravenous administration of radiopharmaceuticals as well as the administration of normal saline.
2. When the radiopharmaceutical is administered, the patient's name and date of birth, date of administration, imaging procedure requested, requesting physician, type of radiopharmaceutical, amount of radiopharmaceutical, time of disposition and initials of the technologist preparing the dose are recorded in the Nuclear Medicine Manager. From this information, a patient radiopharmaceutical script is generated to label and accompany the patient dose. A paper print out is generated each day containing this information and kept on file.
3. The following procedures shall be performed before administration of a radiopharmaceutical or other drugs to a referred patient:
 - a. All radionuclide shall be assayed in a dose calibrator to determine the amount of radioactivity present and to determine that the assayed dose is within + or – 10% of the departments established radiopharmaceutical dosage listed in the Nuclear Medicine Department procedure manual.
 - b. All patient doses shall be assayed within 15 minutes of administration using a dose calibrator and shall be labeled to indicate the identity of the radiopharmaceutical and the intended imaging procedure.
 - c. All radionuclide doses shall be examined for the presence of the appropriate radiopharmaceutical/procedure label.
4. After administration of the radioactive material by injection, the date identity of the radionuclide, the site of injection and the dosage shall be recorded on the patient's nuclear medicine record and the radiopharmacy label(s) placed on the history sheet under the radiopharmaceutical section.

Policy Reviewed by:

UPH Central IL Clinic Directors approved: 11/2022

REFERENCES:

Joint Commission Med Management Standards – TJC Handbook – 2022

CMS Conditions of Participation – 2022

Lexicomp Drug Database –2022

Mosby's Nursing Consult – 2022

UpToDate - 2022