

# UConn HEALTH

## Clinical Policy Medication Administration

**A. Effective Date:**

February 2, 2021

**B. PURPOSE:**

To provide a safe and effective process for administering medications across a patient's continuum of care.

**C. POLICY:**

1. Patients and/or family may not self-administer medications.

Self-administration does not include:

- a. Approved administration by the patient and/or family in the presence of a clinician. In such circumstances, the assigned clinician is responsible for monitoring the administration and the patient's response to the medication.
- b. Medications administered via a patient owned medication pump, refer to the policy *Patient Owned Medication Pumps*.

2. Medication administration will include:

- a. Incorporating findings from the medication history and medication reconciliation process
- b. Verifying medication orders associated with the patient's treatment, including planned surgical or other invasive procedure(s)
- c. Collaborating with other professionals to resolve discrepancies
- d. Verifying medication allergy(s) prior to administering any medications.

3. The 8 Rights of Medication Administration will be observed:

- a. Right patient
  - i. Check the name on the order and the patient
  - ii. Use 2 unique identifiers
  - iii. Ask patient to identify himself/herself
  - iv. When available, use barcode or other technology
- b. Right medication
  - i. Check the medication label
  - ii. Check the order
  - iii. When available, use barcode or other technology

- c. Right dose
    - i. Check the order
    - ii. Confirm appropriateness of the dose using a current drug reference
    - iii. If necessary, calculate the dose and have another clinician independently calculate the dose as well
  - d. Right route
    - i. Again, check the order and appropriateness of the route ordered
    - ii. Confirm that the patient can take or receive the medication by the ordered route
  - e. Right time
    - i. Check the frequency of the ordered medication
    - ii. Double-check that the ordered dose is being given at the correct time
    - iii. Confirm when the last dose was given
  - f. Right documentation
    - i. Document administration after giving the ordered medication
    - ii. Chart the time, route, and any other specific information as necessary, such as the site of an injection or any laboratory value or vital sign that needed to be checked before giving the medication
  - g. Right reason
    - i. Confirm the rationale for the ordered medication, such as the patient's history or reason for the medication
    - ii. Revisit reasons for long-term medication use
  - h. Right response
    - i. Evaluate if the medication led to the desired effect; for example, if antihypertensive is given, has his/her BP improved or does patient verbalize decreased nausea if receiving an antiemetic?
    - ii. Document any associated monitoring and any other nursing interventions that are applicable.
4. Medications that are supplied by the manufacturer with an expiration date based on continuous storage under refrigeration but that also may be safely stored at room temperature in an intermediary location for immediate use will be labeled with an updated expiration date based on published data when removed from refrigeration. Examples include:
- a. succinylcholine – 60 days
  - b. rocuronium – 60 days

**D. SCOPE:**

Medications may be administered by the following:

1. A practitioner authorized to provide orders for medications.
2. A clinician authorized to take medication orders, including a Registered Nurse (RN), Licensed Practical Nurse (LPN), or a graduate or student nurse supervised by an RN, or a Respiratory Therapist for respiratory medication.
3. Pharmacists may administer vaccines with the appropriate certifications.

Patients and/or family may not self-administer medications.

**E. DEFINITIONS:**

Medication: any prescription medication, sample medication, herbal remedy, vitamin, nutraceutical, vaccine, or over-the-counter drug; diagnostic and/or contrast agent used on or administered to persons to diagnose, treat, or prevent disease or other abnormal conditions; radioactive medications, respiratory therapy treatments, parenteral nutrition, blood derivatives, and intravenous solutions (plain, with electrolytes and/or drugs); and any product designated by the Food and Drug Administration (FDA) as a drug. This definition does not include enteral nutrition solutions (which are considered food products), oxygen, and other medical gases.

**F. MATERIALS NEEDED:**

Appropriate supplies for medication administration route.

**G. PROCEDURE:**

**A. Preparation of Medications**

1. Medications should be prepared as close to the time of administration as possible to reduce risk of contamination or administration to the wrong patient. Injectable single-dose medications must be given within one hour of being prepared for administration. Intravenous solution containers should be punctured as close as possible to time of use.
2. Certain high alert medications require double-checks. The Pharmacy and Therapeutics Committee is responsible for classifying medications as high alert and maintaining an updated list.
3. All medications removed from the original package and transferred to a syringe or secondary container should be clearly marked and easily identifiable by medication name and dose in order to reduce potential for error. Labeling is required unless the medication is prepared at the bedside and immediately administered to the patient without any interruption in the process. Medications that are removed from the original package and found in a secondary container without a label should be discarded.
4. A clearly identified area for preparing admixtures will be available on all nursing units. In operative and invasive procedural areas, admixtures will be prepared in the immediate vicinity of the procedure location, such as in the OR/Procedure Room.
5. Medications cannot be left unattended and must be secured when not being administered. Medications must be in the automated dispensing machine (ADM), locked medication room, or a tamperproof bedside/mobile workstation security device. In OR/Procedure areas, staff must be continually present when medications are available. A locked storage area will be used for syringes and needles.
6. Avoid keeping medications on person for extended periods of time; please maintain storage in the designated area whenever possible.
7. Ready to administer medication syringes shall be used whenever possible
8. When single-dose vials (SDV) are used, the medication shall be prepared in one syringe, with one dose for one patient. With the exception of procedural areas when rapid sequence dosing is ordered (less than 30 minute intervals). Discard any open medication vials that are labeled as single use.

9. When rapid sequence dosing is ordered the entirety of the injectable single dose vial shall be administered OR discarded within one hour of being prepared for administration. SDV shall only be accessed ONE time, therefore all medication from a SDV shall be prepared for administration. If all or part of a SDV requires wasting, the waste procedure is to be completed immediately before or after the time the medication is wasted.
10. When multi-dose vials (MDV) are used, the label must be dated with a 28-day expiration date. Opened MDVs must be stored according to manufacturer's recommendations. Undated vials that are not properly dated will be discarded.
11. When MDVs are used, the following precautions to reduce potential for cross-contamination and introduction of particulate matter will be followed:
  - a. The rubber septum on an MDV that is used for more than one patient should be disinfected with alcohol and allowed to dry before each entry
  - b. A new needle or device and new syringe should be used every time the MDV is accessed.
12. A filter needle must be used when withdrawing medication from a glass ampule. The filter needle should be replaced with the appropriate device prior to the administration of the prescribed medication.
13. Personnel handling hazardous medications should wear personal protective equipment (PPE) in compliance the UConn Health policy for the *Safe Handling of Hazardous Drugs*.

## **B. Unused Medications**

1. Return of Medication
  - a) The "Return" feature should be used only when the user is physically returning an unused, intact medication to the automated dispensing cabinet unit.
  - b) The user will return the item back into stock, with a witness for controlled items.
2. Wasting Medications
  - a) If all or part of a medication originally taken from the ADM has been wasted, it will be documented at the ADM by using the "Waste" option.
  - b) Two authorized users are required to witness and document the waste of a Controlled Substance.
  - c) Medication wastes are defined as all or part of a medication that is not in its original package and not administered to a patient. This includes accidental breakage of an ampule, tubex, etc.
  - d) The waste procedure is to be entered at the time the medication is wasted.

## **C. Verification of Medication**

1. A pharmacist must verify all non-emergent medication orders on inpatient units before the clinician can obtain and administer the medication. Orders given immediately before, during and after operative or other invasive procedures by practitioners providing or directly supervising care are not routinely verified by a pharmacist, although one may be consulted as needed.
2. Pharmacy will communicate with practitioners and clinicians, as appropriate, regarding any revised medication orders based on therapeutic interchange, drug-to-drug interactions, automatic formulary substitution, or interruption in supply. This will be noted as "per protocol", which is authorized by the Pharmacy and Therapeutics Committee, when applicable.

3. To verify that all orders medication for inpatient have been administered or otherwise accounted for prior to the end of the shift, the nurse must review each patient medical record for all current and discontinued medication orders prior to hand off.

#### **D. Timing of Medication Administration**

##### **1. Scheduled medications**

*Scheduled medications include all maintenance doses administered according to a standard, repeated cycle of frequency, such as every 4 hours, three times daily, twice daily and daily.*

- a. Time-critical scheduled medications are those where early or delayed administration may cause harm or result in substantial sub-optimal therapy or pharmacological effect. Timing of administration will be clearly ordered and the medication will be given when indicated necessary *or within 30 minutes before or after the scheduled time*. Examples include but may not be limited to:
  - i. Scheduled (not *prn*) opioids used for chronic pain or palliative care, other than sustained-release, as fluctuations in the dosing interval may result in unnecessary break-through pain.
  - ii. Immunosuppressive agents used for the prevention of solid-organ transplant rejection or to treat myasthenia gravis.
  - iii. Antibiotics ordered for the treatment of early sepsis/septic shock.
- b. Non-time-critical scheduled medications are those where early or delayed administration within a more broadly-specified range of time will achieve optimal therapy and pharmacological effect and should not cause harm. Such medications will be administered within 60 minutes before or after the scheduled dose and may include BID, TID, q4h, q6h. Examples include but may not be limited to sustained-release opioids.
- c. Scheduled medications may be given early or late or may be omitted under specific circumstances, such as but not limited to patient absence from unit or nausea/vomiting. If administration of a time-critical scheduled medication will be or has been delayed or administered early beyond allowable expectations:
  - i. Document in the patient record regarding the reason administration of the dose was early, delayed or omitted,
  - ii. Evaluate the need to change the timing of future doses
  - iii. Notify practitioner when an adverse outcome is anticipated or has occurred,

##### **2. Unscheduled medications**

- a. Time-critical unscheduled medications are those where early or delayed administration of maintenance doses may cause harm or result in substantial sub-optimal therapy or pharmacological effect will be administered when necessary for maximum therapeutic effect. Examples include but may not be limited to:
  - i. STAT and Now doses
  - ii. First doses and loading doses
  - iii. One-time doses, including pre-medication (e.g. diphenhydramine or lorazepam)
  - iv. Time-sequenced medication (e.g. chemotherapy)
  - v. Concomitant medications (e.g., n-acetylcysteine and iodinated contrast media)
- b. Non-time-critical unscheduled medications, such as *prn* medications, will be administered within 60 minutes of being deemed necessary.

1. Exceptions to standard drug administration times may be appropriate for patients to stagger numerous secondary IV medications.
2. If a controlled substance is required for an inpatient who is temporarily transferred to a location where no clinician or practitioner is available to administer medication, the assigned nurse will obtain, sign off, administer, and monitor for effect of the medication. Controlled substances are signed out from the automated dispensing machine on the patient's designated unit.

#### **E. Administration by Infusion Pump**

1. Infusion pumps with infusion pump safety software shall be used for all medication infusions (unless contraindicated) to reduce dose/rate errors. Infusion dose/rate and volume will not be manually entered in to drug libraries to ensure that alerts and stops will function properly and prevent potential errors related to miscalculated doses.
2. Infusion pumps with safety software do not replace independent double checks where appropriate.

#### **F. IV Medication Resources and Exceptions**

1. The "JDH IV Medication Guidelines" maintained by the Pharmacy Department is the primary resource for IV medication administration.
2. If an ordered medication is not listed in the IV Medication Guidelines, the nurse will contact the pharmacy to determine appropriateness of administration on that unit and request guidance regarding safe administration. The pharmacist will collaborate with the nurse and practitioner to determine the appropriate patient location. This communication will be documented in the medical record.
  - a. If the patient's location needs to be changed, the nurse will communicate with the practitioner, nursing manager or designee, or nursing supervisor regarding patient placement.
3. If medications, doses or routes are ordered that deviate from recommendations, the practitioner, pharmacist and the nursing manager / designee should be notified for the purpose of collectively addressing concerns and determining the appropriate course of actions.
4. The rationale for exceptions to medication policies and /or IV medication guidelines must be clearly documented in the medical record.

**H. ATTACHMENTS:**

[Automated Dispensing System \(Pyxis Medstation ES\)](#)

Elsevier: [Medication Administration: Intermittent Infusion Methods - CE](#)

Elsevier: [Medication Administration: Topical - CE](#)

Elsevier: [Medication Administration: Injection Preparation from Ampules and Vials - CE](#)

Elsevier: [Medication Administration: Oral - CE](#)

Elsevier: [Medication Administration: Intravenous Bolus - CE](#)

Elsevier: [Medication Administration: Nasal Instillation - CE](#)

Elsevier: [Medication Administration: Intramuscular Injection - CE](#)

**I. REFERENCES:**

The Joint Commission

**J. SEARCH WORDS:**

Medication, administration

**K. ENFORCEMENT:**

Violations of this policy or associated procedures may result in appropriate disciplinary measures in accordance with University By-Laws, General Rules of Conduct for All University Employees, applicable collective bargaining agreements, the University of Connecticut Student Code, other applicable University Policies, or as outlined in any procedures document related to this policy.

**L. STAKE HOLDER APPROVAL:**

On File

**M. COMMITTEE APPROVALS:**

Nursing Standards Committee & Pharmacy and Therapeutics Committee

**N. FINAL APPROVAL:**

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|--|--------------------------|
| 1. <u>Andrew Agwunobi, MD (Signed)</u><br>Andrew Agwunobi, MD, MBA<br><b>UConn Health Chief Executive Officer</b>              | <u>2/17/2021</u><br>Date |
| 2. <u>Anne D. Horbatuck (Signed)</u><br>Anne D. Horbatuck, RN, BSN, MBA<br><b>Clinical Policy Committee Co-Chair</b>           | <u>2/16/2021</u><br>Date |
| 3. <u>Scott Allen, MD (Signed)</u><br>Scott Allen, MD<br><b>Clinical Policy Committee Co-Chair</b>                             | <u>2/16/2021</u><br>Date |
| 4. <u>Caryl Ryan (Signed)</u><br>Caryl Ryan, MS, BSN, RN<br><b>VP Quality and Patient Services &amp; Chief Nursing Officer</b> | <u>2/11/2021</u><br>Date |

**O. REVISION HISTORY:**

New Policy Approved: 8/2003

Revisions: 5/06, 9/09, 12/10, 2/11, 11/12, 7/15, 1/16, 10/16, 9/17, 5/18, 2/21