

IREDELL HEALTH SYSTEM

Medication Administration Standards	
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P&T Committee	Date: 06/2022

STANDARDS

- Medications are administered following the 7 rights of medication administration- right patient, right drug, right dose, right route, right time, right documentation, and right reason.

POLICY

RIGHT PATIENT

- The clinician who prepares the medication also administers the medication.
- When administering medications, the patient's name and date of birth are used as identifiers. These should be read aloud at the bedside or, if possible, the patient should state name and date of birth as the clinician compares the armband to stated name and date of birth.
- The patient's armband is scanned to verify the patient's account number matches name date of birth and medication ordered.
- The Electronic Medical Record policy contains detailed specifics as to how to utilize the bar coding system in medication administration. Please refer to this policy for specifics related to the process of administration related to the use of barcode and/or computer.

RIGHT DRUG

- The clinician verifies the medication selected is correct based upon the medication order and the product label and then scans the barcode for further verification. Refer to *Barcoded Medication Administration* policy.
- Patient allergies are checked prior to administration of medications.
- Clinicians should be familiar with the expected effects of the drug, acceptable dose ranges, untoward actions and/or side effects, any special precautions that should be taken and verifies no contraindications are present.
- The clinician verifies the integrity of the medication based on visual exam for particulates or discoloration. The clinician also checks the medication expiration date prior to administration.
- Special caution is taken to observe for side effects when the first dose of a medication is administered.

- With the administration of a new medication, the patient or family (when appropriate) is educated as to the drug, its purpose, and any anticipated side effects.

RIGHT DOSE

- Any dosages which appear to be unusual are verified with the prescriber prior to administration of the medication. Any unresolved or significant concerns about the medication are discussed with the prescriber and/or relevant staff.
- When a physician orders an IV rate of KVO, the rate should be 10 ml/hr.

RIGHT ROUTE

- Certain medications require two licensed personnel to double check dosages and labeling prior to administration. These are as follows:
 - 1) Anticoagulants that require manipulation of the dosage (i.e. Heparin IV, any anticoagulant not given as it is packaged)
 - 2) Some insulin, to include U-500, insulin given intravenously, long-acting insulin (Levemir).
 - 3) All IM and IV medications given to children under 13 years of age
 - 4) All PO medications containing narcotics and/or requiring calculations given to children under 13 years of age
 - 5) All IV fluids with additives to children under 13 years of age
 - 6) Antineoplastics (chemotherapy)

RIGHT TIME

Timeframes for Medication Administration

- Standardized medication administration times decrease risks to patient safety by:
 - 1) Reducing the potential for missed or duplicate administration of medications
 - 2) Standardizing and simplifying dose regimens
 - 3) Reducing the risk of incorrect quantities of medications during dispensing

Scheduled Medications

Key Definitions Regarding Medication Administration

- **Time-critical scheduled medications** - administered according to a standard, repeated cycle of frequency (e.g. q4h, BID, daily) where early or delayed administration of maintenance doses more than 30 minutes before or after the scheduled time may cause harm or substantial sub-optimal therapy or pharmacological effect. Listed in Table 1.
- **Non time-critical scheduled medications** - administered according to a standard, repeated cycle of frequency (e.g. q 4h, TID, daily) where early or delayed administration of maintenance doses more than 30 minutes before or after the

scheduled time will not likely cause harm or substantial sub-optimal therapy or pharmacological effect. (e.g. maintenance cardiac medications, oral antibiotics, antidepressants, topical ointments/creams).

Table 1

Type of Scheduled Medication	Goals for Timely Administration
Time-Critical Scheduled Medications	
Medication orders with a dosing schedule more frequent than every 4 hours (e.g. every 2 hours, every 1 hour)	
Medications that: <ul style="list-style-type: none"> • Must be administered apart from other medications or within a specific period of time <ul style="list-style-type: none"> ○ IV antibiotics ○ Anticonvulsants ○ Immunosuppressive agents used for the prevention of solid-organ transplant rejection • Are scheduled before, after, or with meals for optimal effect (e.g. rapid or ultra-short acting insulins) 	Within 30 minutes before or after the scheduled time. <i>(Note: Meal time insulin administration may vary based on schedule/delivery of meal trays)</i>
Non-Time-Critical Scheduled Medications	
Medications prescribed more frequently than daily but no more frequently than every 4 hours (eg. q4hr, q6 hr, q8 hr, q12 hr, BID, TID, QID)	Within 1 hour before or after the scheduled time <i>(Note: During time of emergencies (including pandemics, mass casualties, or natural disasters) medication may be administered within 2 hours before or after scheduled time.)</i>
Daily, weekly, monthly medications	Within 2 hours before or after the scheduled time

- Medications administered outside the following time frames for scheduled medications are considered “missed dose” or “wrong time”.
- Non-Time Critical Scheduled medications will fall into the standard administration times as listed in Table 2.

Table 2: Standard hours of administration

Approved Abbreviation	Interpretation	Standard Administration Times Nursing Units	Standard Administration Times Respiratory Therapy
Daily	Once daily	1000	0800
BID	Twice daily	1000,2200	0900,2100
TID	Three times daily	1000,1600, 2200	0930, 1530, 2130
QID	Four times daily	1000,1400, 1800,2200	0930, 1330,1730,2130
HS	At bedtime	2200	2100
AC	Before meals	0730, 1130, 1630	0730, 1130, 1630
PC	After meals	0900, 1300, 1800	0900, 1300, 1800
With meals	With meals	0800, 1200, 1700	0800, 1200, 1700
Q 4 h	Every 4 hours	0000,0400,0800, 1200,1600,2000	0000,0400,0800, 1200,1600,2000
Q 6 h	Every 6 hours	0600, 1200, 1800, 0000	0200,0800,1400,2000
Q 8 h	Every 8 hours	0600, 1400, 2200	0000,0800,1600
Q 12 h	Every 12 hours	1000,2200	1000,2200
Q 24 h	Every 24 hours	1000	0800
Diuretics ordered BID	Twice daily	Given at 0800 and 1800	
Hypoglycemics ordered daily	Once daily	0730	
Hypoglycemics ordered BID	Twice daily	0730 and 1630	
Standard Insulin Administration Times	With meals	0800, 1200, 1700, and 2100 but may be administered according to patient's meal preference	
Warfarin once daily	Warfarin Once Daily	1800	
Dofetilide (Tikosyn) and sotalol (Betapace)	BID	0800 & 2000	

Exceptions to Standard hours of administration include:

- 1) Multiple medications to be given in sequence

Exceptions: Aminoglycosides (amikacin, gentamicin, kanamycin, neomycin, streptomycin ,tobramycin), vancomycin (Vancocin), fondaparinux (Arixtra) and treatment dose enoxaparin (lovenox) will be dosed at intervals specified

by the order from the time the first dose is given. Medications in the newborn nursery and pediatrics will be dosed at intervals specified by the order from the time of the first dose given.

- 2) Medications administered according to start times:
 - If a specific number of antibiotic doses are ordered post-op, the dose given in the PACU should be counted (because it was given after the order was written) and the next dose is timed from the PACU dose. Antibiotic doses given in OR are not counted because they were given before the order was written.
 - Antibiotics
 - Administration schedule does not divide evenly into 24 hours (e.g. q 18 h or q 36 h).
 - 3) Drug/drug or drug/food interactions
 - 4) Specific times ordered by the prescriber or requested by the patient/caregivers
 - 5) Emergency Situations
 - 6) Professional judgment-in collaboration with prescriber/LIP
 - 7) Coordination with specific procedure areas
- Exceptions to standard hours of administration must be clearly communicated to pharmacy

Missed or Late Administration of Medications

- Complete documentation in our medication error reporting system for untimely administration of medications without a hospital defined justifiable reason which includes but is not limited to:
 - Patient not present on the nursing unit (e.g. procedure, appointment)
 - Patient's condition changed (e.g. NPO, over-sedated, decreased LOC)
 - Patient refusal
 - Emergency response
 - Dosing parameters not met, i.e. BP too low
- Select from the drop down box in the Electronic Medical Record the most applicable reason for missing the dose. ***Note: Nursing Judgment should not be the sole reason utilized for missed or late medications. If Nursing Judgement is selected you must add a detailed comment for the reason for missed or late medication.***
- The physician should be notified if medications are not given or withheld.
- Missed or late medications can be retimed by pharmacy to ensure future doses are given on time.

PRN Medications

- Medications ordered on PRN basis should be given for the indications listed within the order.
- Follow up for response to PRN medications should be documented within the electronic record.

- Any range orders will be clarified as per the range order policy.

One Time Medications

The following do not fall in the scheduled medications category:

- STAT or NOW doses
- First doses or loading doses
- One time doses
- Pre-op or on-call doses

Note: Antibiotics ordered “on call”, “in the AM before surgery”, “on call to OR”, or “one hour pre-op” or similarly should be given in the OR/holding room area unless otherwise specifically stated. This applies only to OR orders: not to Endoscopy or Cardiac Cath Lab “on call” orders. Pre op meds for ICU/CCU patients should be given in the critical care unit.

Pharmacy will give priority to STAT or NOW doses when dispensing. STAT orders shall be dispensed immediately (within 15 minutes) and ASAP or NOW orders shall be dispensed within 30 minutes. Nursing personnel shall inform pharmacy personnel by telephone that a STAT or NOW order has been transmitted and that a messenger, volunteer, or nursing employee has been sent to pick up the medication. All other orders are dispensed within 2 hours and are delivered by messenger, volunteer, or pharmacy personnel. The times defined above refer to the time from order receipt in Pharmacy until the medication is ready for delivery.

Self-Administration of Medications

- Please refer to the Self-Administration of Medications policy for details on how to manage this process.

Storage of Medications

- All medications received from the pharmacy should be placed in an approved storage area upon receipt.
- All medications removed from a medication storage area and from the barcoded packaging should be removed just prior to administration and only for one patient at a time. Once removed, the drug should remain with the individual at all times and should not be left unattended. The nurse initiating the administration of a medication is responsible for making sure the administration is completed. Please refer to the Controlled Substance Policy related to handling of wastage and documenting those substances. For other non-controlled substances administered or used, the drug should be returned to the original storage area as soon as possible. An explanation is stated in the medication record and in the patient care record as needed.
- Most bulk items (i.e. ointment, inhalers, etc.) should be stored separately in the patient’s medication drawer.

- Discontinued, outdated, unlabeled or damaged medication(s) shall be returned to pharmacy for proper disposition.

RIGHT DOCUMENTATION

- Administered medications are documented within the Electronic Medical Record(EMR) or department specific record.
- Reassessment should occur after administering PRN medications.

RIGHT REASON

- PRN medications must have indication for usage on order and addressed within documentation.
- Special caution is taken to observe for side effects when the first dose of a medication is administered.

INITIAL EFFECTIVE DATE: 02/2013

DATES REVISIONS EFFECTIVE: 01/2016, 03/2018, 04/2018, 03/2020, 09/2020, 08/2021, 03/2022, 07/2022

DATES REVIEWED (no changes):