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	Effective: *05/2019*
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	Owner: *Yvonne Strader: CNO St Mary Med Ctr*
	Policy Area: *Patient Care Services*
	References:
	Applicability: *WA - Providence St. Mary MC*

Pyxis Utilization, 8720.5479

POLICY

1. Providence St. Mary Medical Center utilizes an Automated Drug Delivery Device (ADDD) system that allows for accurate dispensing, tracking, and charging of medications used throughout the in-patient, outpatient, and surgery system.

2. Access will be strictly maintained to ensure adequate security for medications including controlled substances to provide for proper documentation of medication use, and to assure confidentiality of patient data. All staff must complete the ADDD (ADDD) Security and Use Agreement. See also policy "Controlled Substance Inventory Management"

3. The Pharmacy Director is responsible for oversight of the ADDDs, and to assure that drugs are procured, stored, delivered, and dispensed in compliance with all applicable state and federal statutes and regulations.

PURPOSE

This policy will address the use of the Automated Drug Delivery Device System, including removal, waste, and return or administration of drugs from a ADDD; as well as the process to obtain reports from the system.

DEFINITIONS

ADDD Automated Drug Dispensing Device

BioID A scanned finger imprint that replaces a text password

Cubie A type of Pyxis dispensing container with a locking lid which limits access to the contents

PROCEDURE

ACCESS:

1. See Pharmacy Policy: Pyxis- Automated Drug Delivery Devices.

PYXIS SYSTEM SETUP

1. All inpatient nursing units, OPC, ED, PACU, and Cancer Center will use the "profile" system for the

ADDDs. The Anesthesia areas (Operating rooms, Endo, and Cath Lab) will be "non-profile."

2. Prescriber orders will be sent to Pharmacy via the electronic medication record, except during down time procedures when orders should be sent via the tube system or faxed.

3. The eMAR is the most current source of information and tells the nurse where the medication is located. Only medications stocked in the ADDD will show in the ADDD patient profile. If an individual ACTIVE order in the eMAR shows the stock location on the eMAR as PYXIS and it does not show in the ADDD Patient Profile, contact the pharmacy regarding the discrepancy.

4. Hold medications will be treated like discontinued medications.

5. Patient's own medications are only to be administered to inpatients in rare instances (see Pharmacy policy on Patient Own Medications, 7170.5060). Any medications that are NOT supplied by PSMMC Pharmacy will be sent to pharmacy for inspection. Pharmacy will affix a bar code label to the container, return it to the unit, and the container will be kept in the patient room lock box, dispensed from there, and administered by the nurse caring for the patient.

6. Multi-dose containers (eye drops, insulin, inhalers, tubes, etc) that are initially dispensed from the ADDD will be immediately labeled with a patient's name and a 28-day expiration date by the nurse or therapist who removes the medication. The multi-dose containers will be stored in and dispensed from the patient's lock box in the room.

7. Any request for changes in inventory of a specific nursing unit's ADDD will be approved by pharmacy management

8. Refrigerated medications will be kept in medication specific refrigerators and linked to the ADDD for retrieval, except in the Operating area core, where the medication refrigerator is not linked to Pyxis.

9. Override Medications are those accessed prior to a pharmacist review due to their emergent nature:

   a. Each unit will have a group of medications that can be accessed using the override function. The override function should **only** be used in urgent/ emergent situation as the patient's condition warrants.

   b. The override function is not to be used for routine, or non – emergent first dose medications.

   c. When the override function is used, a CDC (clinical data category) must be used—a reason must be documented for the override.

   d. Any "high risk drugs" will have a warning box to alert the nurse that this is a high risk drug.

   e. Requests for changes in the override medication list will be made in writing by the unit/department Director & sent to Pharmacy for review. The pharmacy director will determine the appropriate over-ride status of a specific agent based on the indications for the medication, safety issues (high-alert medication status, etc.) and other relevant issues (special storage requirements, cost factors, etc). Only the smallest reasonable dosage forms will be placed on override, taking into consideration emergency uses. If nursing and pharmacy cannot reach agreement, P&T committee will make the final decision regarding the over ride status of a specific medication.

   f. If an override medication is used and there is no order on the chart and an order was not transmitted to pharmacy, this constitutes improper utilization and will be referred to the unit Director and Quality for review.

10. A return bin will be available at each ADDD for returned medications.

11. Patients are entered, transferred and discharged via an interface with the EHR. Patients are discharged

from the hospital's EHR immediately after being physically discharged from the hospital. Patient names are no longer active on the ADDD computer system 2 hours after discharge.

12. Patient names are added manually to the ADDD computer system only during downtime and STAT admissions of a patient.   Examples of STAT admission include when patient arrives via ambulance in full code or trauma or patient arrives and requires immediate transfer to a surgical suite. *See Attachment A: Pyxis ES Job Aids*

    a. If a patient name is not present on the ADDD system where the patient is physically located, the ADDD user should do a facility-wide search for the correct patient name. *See Attachment A: Pyxis ES Job Aids*

    b. If the patient name cannot be found or the patient is a STAT admission, the ADDD user manually adds the patient by using the correct first name, last name, and medical record number. If this information is not available due to a STAT admission, the user should enter as much patient information as possible to make linking the information to the patient's actual account easier.

    c. Pharmacy will review medication orders for patients manually added to the ADDD as soon as possible, but no later than the following business day

13. The medications will appear on the profile screen, two hours before the first dose is due.

14. The medication will disappear from the profile screen 4 hours after the "stop" time. Once a STAT medication has been retrieved from the ADDD it will disappear from the screen.

15. Acceptable turnaround time for medications to be verified by the pharmacist and thus available for the nurse to give:

    a. STAT = 15 minutes (or as policy states)

    b. NOW = 30 minutes

    c. Routine = 1 hour

MEDICATION ADMINISTRATION PROCESS

For consistent use in accessing medications and maintaining related records, the following procedures will be followed when obtaining medications for patients and performing all related activities:

1. To remove medications from the ADDD, select "My patients", select the patient, then the "remove" option.

2. *Except in procedural areas in which medication orders are autoverified, orders must first be verified by a pharmacist to be accessed unless the medication has been designated as override. The medications listed in the* ADDD *do not represent the patient's medication administration record (MAR). The MAR must be consulted prior to accessing the medication.*

3. Only ONE patient's medications should be removed at a time.

4. Select (touch screen) the medication to be administered (you may select medications by the brand or generic names).

5. If the medication to be removed is a controlled substance, the ADDD will allow you to waste part of the drug during the removal process. If you will not be administering the full dose, the expectation is to waste upon removal . If a witness is unavailable at the time of taking the medication from the ADDD, you may remove the full dose and return as soon as possible to document the waste with your witness. *See Attachment A: Pyxis ES Job Aids*

6. Enter the quantity needed for the dose to be administered, remove medication, and close the drawer. **The inventory count must be verified prior to removing any controlled substance.** This is a blind count and is required prior to removing all control drugs. If the count is inaccurate *correct the count prior to removing the medication.*

7. If multiple medications are to be removed at the same time, select all the medications you wish to dispense then press the "Remove Selections" key. The appropriate drawer will open for each medication selected. Verify the count (if count is required), remove each medication in the drawer and close the drawer when prompted to do so.

8. When a medication appears "greyed out," select the "all orders" tab. A list of alternate locations in your area will appear. "Find more" will expand the search to machines outside your area.

9. If a multi-dose item is removed from the ADDD, label the item with the patient's name and a 28-day expiration date. Do not cover the medication bar code when affixing the name label. The multi-dose item should be stored between use in the patient's room locked box. Only access another multidose item from the ADDD when the patient runs out of this supply as the patient will be charged for each item removed from the ADDD upon administration.

10. Log off the system after all transactions (EXIT button).

11. Place the medications removed from the ADDD in a patient specific container: med cup or baggie.

12. Deliver only ONE patient's medications at a time.

USING THE OVERRIDE FUNCTION - FOR PROFILED ADDDs

1. A limited number of "urgent/emergent" medications have been approved by pharmacy and nursing for which the override function will be available regardless of the patient's medication profile in the Pharmacy computer. Override medications are unit and/or user specific. See *Attachment B, Override Medications*.

2. If the medication is urgently needed and the drug is available as an override medication, the nurse should:

    a. Verify selection of the correct patient.

    b. Check for the drug under generic brand name.

    c. Re-check the drug order using the prescriber's order.

    d. Verify that the drug order has not expired or been stopped.

    e. Check for allergies, drug-drug interactions, and therapeutic duplications, verify drug indication matches need.

3. If the override function is not available for the needed medication, the nurse should expedite the normal order entry procedure to facilitate availability of the drug by contacting the pharmacist.

RETURNING MEDICATIONS

1. Any medication that is removed from the ADDD that is in its original container (not opened) and will not be administered to a patient for whatever reason will be returned to the return bin at the ADDD. To do this, select "My Patients" or "All Available Patients" on the Main Menu and select the "Return" option. A witness is required for returning a controlled substance.

2. If the medication package is not intact, the dose should be wasted and not returned.

DISCREPANCIES

1. A discrepancy occurs when the physical count does not match the displayed count from the ADDD. An alert icon will display at the top of the screen when an unresolved discrepancy exists.

2. At the conclusion of each shift the **unit coordinator/charge nurse** is responsible to ensure all open discrepancies are resolved. It is also recommended that any time during the shift that a discrepancy is noted that it be resolved as soon as possible. ANY nurse can begin the resolution process. See *Attachment A - Pyxis ES Job Aids* for instructions on how to resolve a discrepany.

3. If the discrepancy is NOT resolved within 48 hours, Pharmacy will follow up with the unit's Nursing Director for ANY unresolved discrepancies.

4. The unit Director will follow up on all unresolved discrepancies or those that have an incorrect or inappropriate resolution. Action may involve education & training, monitoring, and / or disciplinary action.

INVENTORY

The ADDDs will be loaded with a sufficient quantity of drugs to meet the needs of each unit. Pharmacy staff is responsible for reviewing drug utilization statistics and managing the ADDD inventory to achieve a 2-3 day minimum stock for most medications, with goal of 1-2 weeks supply. Pharmacy staff authorized to load the MedStations are: Pharmacists, Pharmacy Technicians, and Pharmacy Interns. All pharmacy staff members who load the MedStations shall be oriented and trained in proper technique to maintain security, control inventory including assignment of expiration dates, and other necessary processes to optimally utilize the MedStations effectiveness and patient safety opportunities.

INVENTORY COUNT

1. Controlled substances will be inventoried once a week on the same calendar day between 0001 and 2359 hours by nursing personnel. The inventory count will be performed by two people; nurse to nurse or nurse to pharmacy. The nurse and witness performing the inventory will log this into a book maintained in the unit, verifying that the inventory was completed.

2. Pharmacy will conduct an inventory of controlled substances in anesthesia once weekly.

3. All medications will be tracked for out dates by Pharmacy. The report of outdated medications is printed in the pharmacy daily. Outdated medications will be returned to pharmacy by pharmacy personnel and segregated from useable medications in preparation for destruction or return via a return vendor.

4. Controlled substances are also inventoried during each transaction — using blind count.

5. Non-controlled medications are also inventoried during loading and refilling.

6. Controlled medications that are unaccounted for will be documented and reported to the unit Director and Quality.

LOADING & REFILLING MEDICATIONS

1. Loading and refilling the ADDDs will be done by Pharmacy personnel.

2. "RX check" will be used for medications which do not routinely scan upon load, unless loaded or refilled by a Pharmacist.

3. First doses of medications not loaded in a ADDD will be sent to the unit by pharmacy if needed immediately. Medications not immediately needed or subsequent doses will be loaded into the ADDD, if

appropriate. Note: oral chemotherapy agents will be loaded unit dosed, stored in a chemotherapy plastic bag.

UNLOAD MEDICATIONS

1. Standard stock will be defined as "medications always present in the ADDD". Any changes in standard stock (loading or unloading) will be performed by Pharmacy. The decision will be based on the drug utilization statistics & necessity.

2. The return bin will be unloaded at least daily — at the time of loading and refilling. A "return report" will be printed and used to verify contents of the bin.

3. Patient specific bins will be emptied by nursing when the patient is discharged. Patient's own personal medications will be returned to them prior to discharge. Any multi-dose medications that are to be sent home with the patient must be relabeled by the pharmacy for home use. A copy of the discharge instructions that lists the multidose medication to be continued at discharge will be faxed or tubed to the pharmacy to act as the "order" for the relabeling of the medication. Any remaining medications will be placed in a baggie/sack with a patient label on the sack. Pharmacy will then pick up the bagged medications of the discharged patient during usual rounds on the units.

REPORTS and RECORDS

1. Discrepancies will show recent transactions for the medication at the MedStation.

2. Charge nurses and nursing leaders can run activity reports and the Pyxis Enterprise Server located here: https://wn39148.wa.providence.org/Authentication/SignIn?ReturnUrl=%2f

REPLACING TRANSACTION PAPER

1. Replacement rolls of paper will be supplied by Pharmacy.

2. To change the paper, press the button on the outside of the paper compartment door to the right of the screen. Remove the old roll from the spindle **(keep the spindle)** and insert the new roll onto the spindle. Load the new roll into the cradle with the paper fed underneath the roll. Close the door, insuring that a short length of paper is fed through the bottom of the the door.

DOWNTIME PROCEDURE

See Pharmacy policy: Pyxis-Automated Drug Dispensing Devices

EMERGENCY MEDICATION REMOVAL

1. The "*critical override"* function will **ONLY** be used when a system failure occurs such as the electronic health record or the Interface is unable to communicate with the ADDD. If the failure occurs during regular pharmacy hours, medications will be dispensed from pharmacy.

2. In the event of a catastrophic power failure or a National / Local Disaster an internal battery backup at the Station provides about 45 seconds of power to automatically initiate a safe shutdown of the Station. Medications will be distributed directly from Pharmacy.

3. If the power failure continues, administer only acutely necessary medications while Pharmacy arranges another secured area.

TROUBLE SHOOTING

Use the following steps to help solve problems occurring with the ADDD.

1. Select "Troubleshooting" from the help icon

2. Direct further questions to the unit super user, supervisor, or pharmacy.

3. The following guidelines may help to solve the most common problems encountered with the ADDD.

    a. Wrong medication/incorrect dose is selected and drawer is open

        i. Confirm count

        ii. Press "Cancel"

        iii. DO NOT TAKE MEDICATION

        iv. Close drawer

        v. Repeat "Remove Meds" selecting correct drug and/or dose

    b. Wrong medication is removed and transaction completed.

        i. Return medication using "Return Meds" procedure.

        ii. Repeat "Remove Meds" procedure selecting correct medication.

    c. Wrong patient is selected and transaction completed

        i. Return medication using "Return Meds" procedure.

        ii. Repeat "Remove Meds" procedure selecting correct patient

    d. Drawer closed before removing medication

        i. Choose the same patient and medication

        ii. Confirm count

        iii. Press "Cancel"

        iv. Remove medication previously not removed.

        v. Close drawer

    e. Recovering a jammed / faulty drawer (done by SuperUsers & Pharmacy Staff)

        i. Press "More" then "Recover Storage Space"

        ii. Select failed drawer will be listed. A witness is required for controlled substances.

        iii. Check that all cubie lids are closed and meds in pockets do not protrude above the top of the pocket.

        iv. Close drawer and press "Done"

        v. If the recover is successful, the drawer will reopen and you are required to perform an inventory count of each pocket.

        vi. If unsuccessful, contact pharmacy.

    f. Touch Screen or key pad not responding

        a. First, wait a few minutes. The system may be processing another transaction.

        b. In the "stand by" mode, touch the screen. Listen for the beep the screen makes when it is

active. If there is no beep, the station could be "down". First call Pharmacy for assistance. If they are unable to assist you or Pharmacy is not open, you will need to call Pyxis World Wide Service Center

c. Check to see if the clock is changing. If it is not, then the ADDD is "down". Call Pharmacy for assistance.

d. If the touch screen remains unresponsive, and Pharmacy is not open to assist you, turn the power switch (located on right rear of the ADDD) to the off position and wait **at least** 3 minutes before switching it back on. Touch the screen again. If it still is not working, you will need to call Pyxis World Wide Center

e. If you are at a screen other than the "stand by" mode, wait a few minutes to see if the ADDD will "time out" and return to "stand by" screen. If it does not "time out" call Pharmacy for assistance. If they are unable to assist you or Pharmacy is not open you will need to call Pyxis World Wide Service Center.

f. Clean Bio-ID lens with an alcohol swab.

CLEANING THE ADDD

ADDD will be kept "clutter free". Nursing will be responsible to be sure that the outside of the ADDD is clean. Pharmacy will be responsible for keeping the inside of the ADDD clean. Any household glass cleaner and a soft cloth can be used to clean the touchscreen. Do not use alcohol.

ADDD SERVICE (Cardinal Health / Pyxis Products)

World Wide Service & Support can be contacted at 1-800-727-6102. Account number: 1772101. Record the case number and alert pharmacy. Service personnel working in Pharmacy or working on a ADDD will be accompanied by a PSMMC Pharmacy staff member.

ADDENDUM regarding Nursing Students/ Instructors

See attachment to Pharmacy policy: Pyxis-Automated Drug Delivery Devices.

Attachments:

A - Pyxis ES Job Aids
B - Override Medications
D - Automated Dispensing Device Security and Use Agreement

Approval Signatures

Approver	Date
Yvonne Strader	05/2019
Dalari Allington	05/2019

Applicability

WA - Providence St. Mary MC

COPY