(A) Policy Statement

An automated medication cabinet (ADC) delivery system allows dispensing, tracking and charging of medications. UTMC strictly manages access privileges to the ADC to insure adequate security for medication. It allows for the proper documentation of medication use and assures confidentiality of patient data.

(B) Purpose of Policy

To establish medication use guidelines to assure compliance with state, federal laws and The Joint Commission guidelines for the utilization of ADC systems.

(C) Procedure

1. AUTHORIZED ACCESS –
   a. Permanent access codes are assigned by pharmacy personnel, as requested by authorized managers including
      i. Director of Nursing,
      ii. Director of Pharmacy or designee
      iii. manager or assistant managers of nursing,
      iv. Respiratory Department Managers,
      v. Surgery Department Managers
      vi. Coordinators from Nursing Services Administration.

      The person authorizing access to the ADC must complete and sign an ADC ID/Password/BIO ID Assignment Form for the employee. Form will be supplied by the authorizing manager. The employee shall bring the form to the pharmacy along with a University of Toledo ID badge to obtain an ADC access ID code. The employee’s ID shall be their Rocket ID number for all new hires. This can be obtained off the Human Resources (HR) employee database or by calling Human Resources (HR). The employee must sign the form. The completed form goes to the pharmacy informatics team who maintains these records.
   b. Pharmacy will authorize and monitor user access.
      i. Security access is by job title, based on defined patient care responsibilities.
      ii. User groups have been determined and the ADC System Administrator maintains the database of user groups as well as the users.
      iii. All additions, deletions or changes to the permanent access codes must be sent to the pharmacy informatics team in pharmacy as confidential information.
      iv. The Pharmacy informatics team is notified electronically or in person of separations. The nursing director or College of Nursing Department Chair shall notify the pharmacy of terminations, status and position changes, and name changes. Upon receiving notification of a termination or by accessing the termination listing report maintained by HR online, the pharmacy informatics team will revoke privileges for terminated users.
      v. BIO-ID (finger scan) will be the primary method of access to the ADC. Default to user name, should occur only if the employee’s scanned fingertips fails repeatedly or the BIO-ID system is not operational. The user shall be granted a temporary password of “PASS1234” which they will be prompted to change the first time they log on.
vi. Initial enrollment witnessing the scan will be done by authorized subject matter experts. Thereafter passwords must be changed per University of Toledo security policy. If an employee forgets their password, they must come to the pharmacy, with a hospital ID badge; where the default password will be assigned temporarily.

2. **ADMISSION/DISCHARGE/TRANSFER (ADT) PATIENT PROFILE INFORMATION** – Patient ADT information travels via interface from the hospital’s mainframe to the Pharmacy computer system to the ADC. In the event of ADT downtime, users may manually enter patients in the ADC.
   - Patient last name
   - Patient first name
   - Patient hospital admission number

   If entered correctly the patient account will be updated with ADT interface when it comes across. Patients will remain on the unit’s screen for a designated amount of time to allow for returns and credits.

3. **MEDICATION ADMINISTRATION** – Online tutorials and help sessions are available to assign in training.
   a) Medication that is located, as remote stock must also be charged through the ADC.
   b) The inventory count must be entered when removing any controlled substance.
   c) All controlled substance access will require a mandatory blind count.
   d) If a discrepancy is discovered at the time of withdrawal, the charge nurse shall be notified and the discrepancy should be resolved as soon as possible (See #6 for discrepancy resolution.)

4. **MEDICATION RETURNS** – Intact items removed from the ADC and not administered may be electronically returned to the ADC using the return meds procedure. Non-controlled substances are to be returned to the medication’s bin, NOT the return bin. Controlled substances must be returned to the return bin, not to the medication’s bin if intact. For large controlled substance products such as PCAs the physical product is returned with the receipt to pharmacy from the ADC return. If a controlled substance is not intact, the procedure for wasting must be followed. Intact medications means the plunger has not been moved, nor the needle uncapped. Patients are credited for return medications but not for wasted medications.

5. **WASTING MEDICATION** –
   a. Wasting of controlled substances is documented at the ADC by two nurses.
   b. One nurse wastes the medication and the other nurse serves as a witness to the discard.
   c. The waste may be documented when the medication is removed or at a later time. (For example when a PCA syringe is changed or discontinued, or giving 25mg of meperidine from a 50mg syringe.)
   d. Waste pertains to controlled substances and will be defined as partial doses of medication or dropped or contaminated doses not administered to the patient.
   e. If a syringe has been used or if the plunger has been moved, or any other violation of a syringe’s integrity has occurred, it must be wasted into a sharps container.
   f. Syringes that have not had their integrity compromised may go into the return bin, along with contaminated oral solid dosage forms, open liquids must be wasted.

6. **INVENTORY COUNT** – All medications will be inventoried by Pharmacy personnel during loading refilling of medication.

7. **DISCREPANCY RESOLUTION** –
   a. The user will be required to verify the count of controlled substances during any transaction accessing the drug.
b. A discrepancy occurs when the physical count does not match the count in the ADC. When a discrepancy occurs, resolve the discrepancy with a witness in the ADC and report the discrepancy to the charge nurse.

c. The user last accessing the medication will be displayed.

d. The charge nurse will research and attempt to resolve the discrepancy.

e. If the discrepancy cannot be resolved, an activity report for that medication will be printed.

f. This will provide information concerning the accessing of the drug. A Nurse Manager or their designees must resolve discrepancies before end of shift.

g. An occurrence report will be generated for any unresolved discrepancy to be investigated by the campus police department; as well as reported to the State Board of Pharmacy and Drug Enforcement Agency.

8. OVERRIDE MEDICATIONS –
   a. A limited number of medications are available via the override selection.
   b. Override medications are medications needed in an acute, emergent situation in which a delay in medication administration may be harmful or detrimental to the patient. Appendix I
   c. The UTMC Pharmacy and Therapeutics Committee must approve the override medication formulary at least annually.
   d. Compliance with the override list will be monitored by pharmacy.

9. PATIENT INFORMATION - Patient information is sent to the ADC via an interface with the hospital ADT system. Occasionally a patient may not be listed on the unit census when a med is needed. These patients may be entered manually at the ADC. Transfers and discharges are also done automatically via the ADT interface.

10. ADC INVENTORY & RESTOCKING –
   a. Pharmacy will maintain an adequate inventory of all medications and IV solutions in the most ready to use form through routine stocking and par level report notification.
   b. Medications will be unit-dosed and IV solutions premixed whenever feasible.
   c. Technicians will prepare the medications for restocking.
   d. A pharmacist will check the medications and document the check of medications prior to stocking of the ADC unit manually and electronically.
   e. If a medication displays as not available for the end user, the medication may be accessed from the alternate location or contact the pharmacy for replacement.
   f. Par levels will be evaluated periodically based on usage reports.
   g. Changes to inventory and/or par levels will be based on pharmacy analysis of usage reports, refill activity reports, formulary revisions and interdisciplinary collaboration.

11. Printing Reports – All stations will be connected to a network printer or local printer for the printing of reports.

12. PROBLEMS – All problems that cannot be resolved on the floor should be reported to the Pharmacy Department. If problems cannot be resolved by pharmacy personnel the ADC vendor will be contacted for resolution. Under no circumstances should the ADC be unplugged or moved (except if advised to reboot). This may cause damage to the ADC software.

13. POWER OUTAGE / EMERGENCY BACKUP PROCEDURES – ADCs are connected to the emergency power supply and should remain operational in a power failure. If it becomes necessary to open the ADC manually for medication access, the pharmacy should be contacted immediately. Any narcotics required during this downtime must be signed out from pharmacy via a shingle sheet.

14. REPORTS – Nursing administration or campus police may request reports from the Director of Pharmacy or designee to assist in investigation and tracking. These may include reports on medication removal by
15. **AUTHORIZED PERSONNEL**— Authorized personnel will be granted access to ADC control areas where medications are stored for performing their roles and duties during their shift. The following groups will be permitted access:

   a. Pharmacists
   b. Pharmacy Technician and students
   c. Nurses - administering medications who are involved in patient care, nursing students are not permitted access unless individually approved by the Chief Nursing Officer and Director of Pharmacy
   d. Patient Care Assistants (PCAs)
   e. Nursing directors/Administrators/Educators
   f. Any health care worker involved in direct patient care. Unlicensed personnel (clerks, campus police) may transport medications under the direction of licensed personnel in approved processes by the nursing manager and pharmacy director including but not limited to removing from pneumatic tube stations.
   g. Individuals who need access to storage rooms where medications are stored for performing their roles and duties during their shift include the following at the discretion for the nursing manager and pharmacy director. The following groups may be permitted access:
      1) Transportation staff
      2) Housekeeping staff
      3) Engineering staff
      4) Materials Management staff
      5) Biomedical engineering staff
      6) Any other individual needing temporary access will be granted access in a conditional manner as seen fit with relative patient care duties.

16: **Biometric Failures:** If the authorized personnel are unable to log on using biometrics a three step process occurs.

   A: Pharmacy or nurse educator will educate the authorized personnel on proper scanning technique. If the technique is appropriate and failure still occurs greater than 80% of attempts
   B: Pharmacy or nurse educator will have the personnel reenroll biometrics after the education on scanning technique. If the failure rate is still greater than 80% go to C.
   C: The information systems pharmacist, operations manager, or director of pharmacy may authorize an authorized personnel to use user name and password for ADC access if A and B fail to meet 80% log on success.
   D: All users access they system with user name and password will provide a printed transaction log daily to the pharmacy listing all ADC transactions.

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**Approved by:**

Russell Smith Pharm D MBA BCPS
Director of Pharmacy

Daniel Barnes RN, BSN, MBA
Chief Executive Officer

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**Review/Revision Date:**

12/10
12/13
6/2014
4/2017
8/2017
Appendix 1: Overridable medications

| OVERRIDABLE MEDS IN ICU Acudose (3A, 3B, 3C, 3D, MICU, MICU-2, SICU) | 
| --- | --- |
| **Note that medications ordered on patient profile will not be displayed on override profile.** |  

<table>
<thead>
<tr>
<th>Medication</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.45% NS (1000 ml)</td>
<td>Methylprednisolone sodium succ 125 mg/2 ml solr</td>
</tr>
<tr>
<td>0.9% NS (1000 ml)</td>
<td>Metoprolol 5 mg/5 ml vial</td>
</tr>
<tr>
<td>Adenosine Inj (Adenocard) 6 mg/2ml syringe</td>
<td>Midazolam 2 mg/2 ml vial</td>
</tr>
<tr>
<td>Albuterol (Ventolin) MDI 90 mcg/act aerosol</td>
<td>Milrinone 40mg/200ml bag</td>
</tr>
<tr>
<td>Albuterol sulfate 2.5 mg/0.5 ml nebulizer</td>
<td>Morphine 2 mg/ml syringe</td>
</tr>
<tr>
<td>Albumin 5% 12.5 gm/250 ml solution</td>
<td>Naloxone (Narcan) 0.4mg/ml amp</td>
</tr>
<tr>
<td>Albumin 5% 25 gm/500 ml solution</td>
<td>Nitroglycerin (Nitrostat) 0.4mg tab</td>
</tr>
<tr>
<td>Albumin 25% 12.5 gm/50 ml solution</td>
<td>Nitroglycerin Drip 50 mg/250 ml bottle</td>
</tr>
<tr>
<td>Albumin 25% 25 gm/100 ml solution</td>
<td>Nitroprusside 25 mg/ml vial</td>
</tr>
<tr>
<td>Amiodarone 150mg/100 ml solution</td>
<td>Norepinephrine (Levophed) 4 mg/4 ml amp</td>
</tr>
<tr>
<td>Amiodarone 150 mg/3 ml vial</td>
<td>Ondansetron 4 mg IV</td>
</tr>
<tr>
<td>Atropine Sulfate 0.1 mg/ml 10 ml vial</td>
<td>Phenylephrine 10 mg/ml 5 ml vial</td>
</tr>
<tr>
<td>Atropine Sulfate 0.1 mg/ml 5 ml vial</td>
<td>Potassium Chloride 10mg/100 ml bags</td>
</tr>
<tr>
<td>Atropine Sulfate 0.4 mg/ml 1 ml vial</td>
<td>Potassium Chloride 20mg/50 ml bags</td>
</tr>
<tr>
<td>Calcium Chloride 1 gm/10 ml syringe</td>
<td>Propofol 1000 mg/100 ml bottle</td>
</tr>
<tr>
<td>Calcium Gluconate 1 gm/10 ml vial</td>
<td>Racepinephrine 2.25% nebulizer aerosol</td>
</tr>
<tr>
<td>Dextrose 10% 1000 ml soln</td>
<td>Sodium Bicarbonate 50 meq/50 ml syr.</td>
</tr>
<tr>
<td>Dextrose 50% syrup</td>
<td>Sodium Chloride 0.9% 10 ml solution</td>
</tr>
<tr>
<td>Diazepam (Valium) 10 mg/2 ml syringe</td>
<td>Vasopressin 20 units/ml soln</td>
</tr>
<tr>
<td>Diltiazem (Cardizem) 25 mg/5 ml vial</td>
<td>Vecuronium (Norcuron) 10 mg vial</td>
</tr>
<tr>
<td>Diphenhydramine (Benadryl) 50 mg/ml vial</td>
<td>Water for Injection (sterile) 10ml</td>
</tr>
<tr>
<td>Dobutamine 500 mg/250 ml bag</td>
<td>(3A, 3B, SICU Only Medications Listed Below)</td>
</tr>
<tr>
<td>Dopamine 400 mg/250 ml bag</td>
<td><strong>Nitroglycerin Drip 100 mg/250 ml bottle</strong></td>
</tr>
<tr>
<td>Enalaprilat (Vasotec) 2.5mg/2ml vial</td>
<td><strong>Nitroglycerin 1.2mg/3ml syringe</strong></td>
</tr>
<tr>
<td>Epinephrine 1mg/10ml syringe</td>
<td><strong>Phenylephrine 500mcg/5ml syringe</strong></td>
</tr>
<tr>
<td>Epinephrine 1mg/1ml ampule</td>
<td><strong>Dextrose 5%/Sodium Chloride 0.2% 1000 ml bag</strong></td>
</tr>
<tr>
<td>Esmolol (Brevibloc) 2500 mg/250 ml bag</td>
<td>(3A, 3B Only Medication Listed Below)</td>
</tr>
<tr>
<td>Flumenazil (Romazicon) 0.5mg/5ml vial</td>
<td><strong>Electrolytes (Plasma-Lyte) 1000 ml bag</strong></td>
</tr>
<tr>
<td>Furosemide 20mg/2ml &amp; 40mg/4ml vials</td>
<td></td>
</tr>
</tbody>
</table>

**(3 A, 3B, 3C, 3D, MICU, MICU-2, SICU Only Medications Listed Below)**
<table>
<thead>
<tr>
<th>Glucagon 1 mg vial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haloperidol (Haldol) 5mg/ml ampule</td>
</tr>
<tr>
<td>Heparin 25,000 units/250 ml bag</td>
</tr>
<tr>
<td>Hydralazine (Apresoline) 20mg/ml vial</td>
</tr>
<tr>
<td>Labetalol (Normodyne) 20mg/4ml injection</td>
</tr>
<tr>
<td>Lactated Ringers (1000ml)</td>
</tr>
<tr>
<td>Lidocaine 1% 20 ml vial</td>
</tr>
<tr>
<td>Lidocaine Syringe 100mg/5ml</td>
</tr>
<tr>
<td>Lorazepam 2 mg/ml injection</td>
</tr>
<tr>
<td>Magnesium Sulfate 1 gram/100 ml bags</td>
</tr>
<tr>
<td>Magnesium Sulfate 2 gm/50ml bags</td>
</tr>
<tr>
<td>Mannitol 20% 100gm/500ml</td>
</tr>
</tbody>
</table>

**OVERRIDABLE MEDS IN SENIORAL BEHAVIORAL HEALTH Acudose (SBH)**

Approved at November 2016 Pharmacy and Therapeutics Committee Meeting (11/29/2016)

**Note that medications ordered on patient profile will not be displayed on override profile.**

- Adenosine Inj (Adenocard) 6 mg/2ml syringe
- Albuterol (Ventolin) MDI 90 mcg/act aerosol
- Albuterol sulfate 2.5 mg/0.5 ml nebulizer
- Dextrose 50% syringe
- Diazepam (Valium) 10 mg/2 ml syringe
- Diphenhydramine (Benadryl) 50 mg/ml vial
- Epinephrine 1mg/10ml syringe
- Epinephrine 1mg/1ml ampule
- Glucose 4 gm chewable tablets
- Glucagon 1 mg vial
- Haloperidol (Haldol) 5mg/ml ampule
- Lorazepam 2 mg/ml injection
- Midazolam 2 mg/2 ml vial
- Naloxone (Narcan) 0.4mg/ml amp
- Nitroglycerin (Nitrostat) 0.4mg tab
- Olanzapine (Zydis) 2.5 mg oral disintegrating tablet
- Olanzapine (Zydis) 5 mg oral disintegrating tablet
- Olanzapine 10 mg powder for solution for injection
- Ondansetron 4 mg IV
- Sodium Chloride 0.9% 10 ml solution
- Water for Injections (sterile) 10ml
- Ziprasidone mesylate 20 mg powder for solution for injection

**OVERRIDABLE MEDS IN NON-ICU Floor Acudoses (4A, 4B, 4C, 4D, 5A, 5B, 5C, 5D, 6A, 6B, Rehab)**

Approved at November 2016 Pharmacy and Therapeutics Committee Meeting (11/29/2016)

**Saline flushes removed from the list**

**Note that medications ordered on patient profile will not be displayed on override profile.**

- 0.45% NS (1000 ml)
- 0.9% NS (1000 ml)
- Albuterol (Ventolin) MDI 90 mcg/act aerosol
Albuterol sulfate 2.5 mg/0.5 ml nebulizer
Atropine Sulfate 0.1 mg/ml 10 ml vial
Atropine Sulfate 0.1 mg/ml 5 ml vial
Dextrose 10% 1000 ml soln
Dextrose 50% syringe
Diazepam (Valium) 10 mg/2 ml syringe
Diphenhydramine (Benadryl) 50 mg/ml vial
Enalaprilat (Vasotec) 2.5mg/2ml vial
Epinephrine 1mg/10ml syringe
Epinephrine 1mg/1ml ampule
Flumazenil (Romazicon) 0.5mg/5ml vial
Furosemide 20mg/2ml & 40mg/4ml vials
Glucose 4 gm chewable tablets
Glucagon 1 mg vial
Haloperidol (Haldol) 5mg/ml ampule
Heparin 25,000 units/250 ml bag
Hydralazine (Apresoline) 20mg/ml vial
Labetalol (Normodyne) 20mg/4ml injection
Lactated Ringers (1000ml)
Lidocaine 1% 20 ml vial
Lorazepam 2 mg/ml injection
Magnesium Sulfate 1 gram/100 ml bags
Methylprednisolone sodium succ 125 mg/2 ml soln
Metoprolol 5 mg/5 ml vial
Midazolam 2 mg/2 ml vial
Morphine 2 mg/ml syringe
Naloxone (Narcan) 0.4mg/ml amp
Nitroglycerin (Nitrostat) 0.4mg tab
Ondansetron 4 mg IV
Potassium Chloride 10meq/100 ml bags
Racepinephrine 2.25% nebulizer aerosol
Sodium Bicarbonate 50 meq/50 ml syr.
Sodium Chloride 0.9% 10 ml solution
Water for Injection (sterile) 10ml
# UTMC REQUEST FOR AcuDose Access

<table>
<thead>
<tr>
<th>AcuDose USER ID</th>
<th>Initial Password will be MCONEW. (You will be required to change on initial sign on.)</th>
<th>Assigned Nursing Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use last 5 digits of Rocket ID number *</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>PASS1234</th>
</tr>
</thead>
</table>

(Check appropriate box)

- [ ] Head Nurse
- [ ] Staff RN
- [ ] Respiratory Therapist
- [ ] Asst. Head Nurse
- [ ] Agency Nurse
- [ ] EMT
- [ ] Staff LPN
- [ ] Surgery Technician
- [ ] Other

Please read and sign the bottom to verify that you have read and understand the following statement:

I understand that my AcuDose ID and bioID (or password for those who have problems with the bioscan) is my electronic signature for all transactions to the system, and no other retrievable record of my password exists. It will be used to track all of my transactions on the system, and will be permanently attached to those transactions with a date and time stamp. These records will be maintained and archived per the policies of the University of Toledo, and will be available for inspection by the Drug Enforcement Agency (DEA) and the State Board of Pharmacy, as is presently done with my handwritten signature for controlled substance records.

I also understand that to maintain the integrity of my electronic signature, I must not give this password to any other individual.

Please Print Name (First, Middle initial, Last) ___________________________ Date ____________

Signature of AcuDose User ___________________________
UTMC REQUEST FOR AcuDose Access

Administrative Use Only

Authorized by: (Signature of Head Nurse or Asst.)  (Printed name of Authorizer)

Entered into ConnectRx System by:  Date:

GIVE TO NEW USER:  ID _____  Password: MCONEW

To establish your bioID
1.) Log onto machine with your ID and password MCONEW.
2.) The AcuDose System will tell you your password is expired and will prompt you to enter a new one. It must be 6 characters long (alpha or numeric or a combination thereof) PLEASE RECORD AND KEEP YOUR PASSWORD IN A SAFE PLACE FOR FUTURE REFERENCE IF NEEDED
3.) You will now need to establish your bioID with your supervisor.
4.) You will be prompted through the procedure of scanning your bioID and this must be performed before you will gain future access to the system.
5.) Then sign in by scanning one of your fingers and then entering your password.