"Are these for here or to go?"
PHARMACY SERVICES

- REGULATED HEALTH PROFESSIONAL ACTS
  - MEDICATION DISPENSING IS NOT IN THE NURSING CONTROLLED ACT; NEED TO BE DELEGATED
**PHARMACY SERVICES**

**In-Patient Pharmacy** is located on the ground floor, (directly across from Occupational Health Dept)

Hours of Operation:
Monday to Friday 0800h - 2000h: decentralized service 0800-1600h; central service 1600h-2000h
Weekends and Statutory Holidays 0800h -1700h

**Out-Patient (Retail) Pharmacy** is located on the 1st floor

Hours of Operation:
Monday to Friday 0830h - 1900h
Saturday 0900h - 1300h
Closed Sunday & Statutory Holidays
PHARMACY SERVICES

- May contact central pharmacy by calling #6695 or #6098
- May contact your Clinical Pharmacist by pager (number posted)
- After hours, may contact Pharmacist on call via locating (#6002).
PHARMACY SERVICES

DRUG USE CONTROL

NYGH Drug Formulary System

Pharmacy & Therapeutics Committee evaluates and selects from the numerous drugs on the market those that are considered to be most efficacious and effective. The hospital formulary is a continually revised compilation of pharmaceuticals which reflects current practice.

*current version in NYGH intranet – Pharmacy Services
PHARMACY SERVICES

**NON FORMULARY DRUGS**

Drugs that are not included in the NYGH drug formulary

- may use patient’s own (pharmacists are authorized to write)
- Non Formulary request form
- requires 48-72 hours to bring drug in
PHARMACY SERVICES

SPECIAL ACCESS DRUGS
- drugs not approved by the Health Protection Branch for marketing in Canada but is under clinical investigation or no clinical investigation protocol exits or are life saving drugs that no longer being manufactured
- need signed consent
- nursing staff cannot administer I.V. form
PHARMACY SERVICES

MEDICATION POLICIES

REFER TO NYGH INTRANET,

- AUTOMATIC STOP ORDERS
  facilitate review; report 24h in advance

- MED. ADMINISTRATION TIME

- AUTOMATIC SUBSTITUTION
  eg: Levo IV to PO; Clinda q6h to q8h; famotidine to ranitidine

- PREPRINTED ORDERS
  standardize; shown to reduce med errors
PHARMACY SERVICES

- TPN ORDERS
- PATIENT’S OWN MEDICATIONS
- MEDICAL DIRECTIVES
- I.V. ADMINISTRATION - (SEE MANUAL)
- MEDICATION ERROR REPORTING
- ADVERSE DRUG REACTION REPORTING (ADR)
ADR Reporting:

What?

All suspected ADRs, especially if:
- unexpected (not consistent with product info or labelling)
- serious (expected or not)
- recently marketed products
PHARMACY SERVICES

**ADR Reporting:**

*Why?*
- Contribute to post-marketing monitoring of safety and effectiveness; ADR may not be evident until used.
- Result in:
  - Identification of previously unrecognized rare or serious rx’n eg. Tamiflu® - self injury / delirium
  - Changes in product safety info or other regulatory actions eg withdrawal from market eg. Zelnorm®

*How?*
- Notify
- Complete ADR reporting form jointly with Physician and Pharmacist
1. From the NYGH Homepage navigation bar, click on Programs and Services

2. Click on Pharmacy Services
# WEB LINKS

## Drug Information Categories

### Product Availability
1. Drug Product Database (DPD)(Canada)
2. Notice of Compliance (NOC) Listings (Canada)
3. Electronic Orange Book (U.S.)

### Drug Coverage
1. Ontario Drug Benefit e-Formulary Query
2. Ontario Drug Benefit Formulary Download
3. Handbook of Limited Use Drug Products
4. Prescription Drug Coverage (Canada)
5. Special Access Drug Request Form (Canada)

### Drug Databases
1. eCPS
2. Lexi-Cmp
3. RxList
4. Micromedex

### General Medical or Patient Information
1. MedlinePlus Health Information
2. Medscape
3. The Merck Manuals
4. DynaMed [ID: NORTHYORK / Password: northyork]

### Drug Safety and Warnings
1. Health Canada Advisories, Warnings and Recalls
2. Canadian Adverse Reaction Newsletters
3. Canadian Adverse Reaction Online Query
4. Adverse Reaction Online Reporting
5. U.S. Food and Drug Administration MedWatch (Medical Product Safety Information)

### Pregnancy/Lactation/Pediatrics
1. Motherisk
2. Drugs and Lactation Database (LactMed)
3. American Academy of Pediatrics
4. Canadian Paediatric Society
5. Perinatology
6. Child Health Network

### Infectious Disease
1. John Hopkins Antibiotic (Registration Required)
2. Canadian Immunization Guide 2006
3. Canadian Guidelines on Sexually Transmitted Infections 2006
4. Canadian Malaria Guidelines 2004
5. Centers for Disease Control (CDC) and Prevention (U.S.)
6. Travel Medicine Program (Health Canada)
7. AIDSInfo
8. Immunodeficiency Clinic (Toronto General Hospital)

### Canadian Associations
1. National Association of Pharmacy Regulatory Authorities (NAPRA)
2. Ontario College of Pharmacists (OCP)
3. Ontario Pharmacists’ Association (OPA)
4. Canadian Pharmacists Association
5. Canadian Society of Hospital Pharmacists
6. The College of Physicians and Surgeons of Ontario
7. Cancer Care Ontario

### Herbal/Alternative Medicine
1. Natural Health Product Directorate (Monographs from Health Canada)
2. Natural Health Product Regulations (Canada)
3. Licensed Natural Health Products in Canada
4. Natural Medicine Comprehensive Database
5. MedlinePlus Herbs and Supplements

### Useful Pharmacy Journals
1. Pharmacy Connection from OCP
2. Pharmacists Letter
3. Pharmacy Practice and Pharmacy Post (Registration Required)
NYGH Drug Distribution System

Tradition ward stock with individual patient’s medication

- Mostly Unit Dose Ward stock (catered to each nursing area) – automatic replacement by pharmacy technicians.
- Non Ward stock medications are dispensed as patient-specific
- 6SE, OR, PAC, DSU, ED, L&D, 2W, 2NICU
- Ward stock and patient-specific items are replenished by pharmacy staff.

Decentralized Unit Dose System

Mobile nursing medication carts/WOWs with unit dose medications in individual patient drawers

Limited stock items in the medication room and nursing carts

8W, 7N, 7W, 6W, 5N, 5SE, 5S, 5W, 4N, 4W, 3N, 3W
Unit Dose System:

• Decrease medication errors and improve patient safety by:
  – providing full identification of BARCODED medication at point of administration
  – providing accountability of doses
  – providing checks and safe guards throughout the process
  – minimizing nursing time for preparing the meds
Decentralized Unit Dose System

- Medications are supplied in the amount needed for **one dose**
- The name, strength and expiry date of the medication is clearly printed on each dose with barcode verification as feasible
- 24 hours medication supply are placed in the patient specific drawers
- Weekdays between 0800h and 1600h:
  Order verification / intervention by the Clinical Pharmacist on the nursing unit, with dispensing by Pharmacy Technicians in central Pharmacy
- Weekdays between 1600h-2000h, and on weekends/Stat holidays:
  Orders are processed in central Pharmacy
- Access night cupboard supplies for after hours needs
- Stock medications are checked by Pharmacy technicians and replenished based on agreed quota
Drug Distribution System

New MD Order

Nurse reviews order

During Pharmacy hours: Pharmacist screens order

Order change with Physician as needed

Assess for clarification/intervention

Interim Doses supplied from Central Pharmacy

Delivered to Nursing unit RED BIN

RN/RPN administers medication to Patient
Drug Distribution System

*Cart Exchange
7N/W, 3N, NICU
direct exchange

RN/RPN
administers
medication
to Patient

MAR Variance report for all queries

RN verifies newly printed MAR with current MAR

MAR variance placed in PHM tray/box

7N/W, 3N, NICU
2100h Computer-generated MAR

Pharmacist resolves MAR variance
24 Hour Cart Exchange

1. Pharmacy Technician delivers 24h fill from pharmacy to clinical care area using a pharmacy cart
2. Pharmacy Technician places 24h fill in the empty HUB stationed in the clinical care area
3. All staff notified overhead of arrival of medications
4. Nurse pulls old drawers from WOW and exchanges for new drawers from HUB
5. Nurse places new drawer in WOW.
6. Patient med drawer is now filled for next 24 hours
7. HUB now contains "old" medication drawers
8. Pharmacy Technician transfers old drawers from the Clinical Care Area’s HUB to Pharmacy using a pharmacy cart

- Pharmacy Technician delivers 24h cart fill to clinical care area per assigned time
- Pharmacy Technician delivers ‘new’ patient medication drawers into the empty HUB located in the clinical care area
- Nurse will exchange ‘old’ patient drawers in WOW for the newly delivered patient drawers located in the HUB, within 2 hours after drawer delivery
- NB: Nurse will need to transfer all NON-unitdose items (eg. puffers, creams, eyedrops, etc) from the old drawers into the newly delivered drawers

Additional Notes:
- White and yellow room number labels will be used to differentiate new vs. old medication drawers
- Medication drawers need to be returned to the “Medication Transfer Cart” in numerical order by bed number (Transfer Cart will be labeled with room numbers to help keep drawers in order)
- Pharmacy Customer Service Technician will notify clinical care areas 20 minutes and 10 minutes before the time nurses are to return ‘old’ medication drawers to the empty ‘Medication Transfer Cart’ (end of shift); person receiving the 20 minute and 10 minute calls, is to notify all staff
24 Hour Cart Exchange

1. Nurse returns ‘old’ medication drawers to the empty HUB before end of shift

2. Pharmacy Technician delivers next 24h medication drawers from pharmacy to clinical care area using a pharmacy cart

3. Pharmacy Technician places next 24h medication drawers into the HUB in exchange for the ‘old’ medication drawers

4. Pharmacy Technician transports old drawers from the Clinical Care Area’s HUB to Pharmacy using a pharmacy cart

5. Nurse places new drawers required for his/her shift from the HUB into empty WOW

Patient med drawer is now filled for next 24h

- Nurse will return ‘old’ medication drawers to the empty ‘Medication Transfer Cart’ at the assigned time before end of shift
- Pharmacy Technician will deliver the next 24h medication drawers into the ‘Medication Transfer Cart’, in exchange for the ‘old’ medication drawers
- Pharmacy Technician will transfer all NON-unitdose items (eg, puffers, creams, eyedrops, etc) from the old drawers into the newly delivered drawers

Additional Notes:
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MEDICATION REQUEST

- Direct electronic notification of missing dose:
  1. Right click on medication item
  2. Select ‘Medication Request’
  3. Complete required fields

- Missing dose delivered to RED bin

- NO need for phone call

Do NOT use for:

- NEW orders eg. unverified; ‘yellow’ not sent
- STAT orders – call x6098 to speak to Pharmacy staff
Where are the medications?

- Nurses can get medication from:
  - Floorstock in medication room/cart
  - Narcotics drawer
  - Nightcabinet
  - RED Medication Drop-off bin
  - Patient’s drawer
  - Store’s supply
  - Patient’s own medications from home
BARCODE MEDICATION

All medications supplied by Pharmacy are BARCODED

EXCEPT:

- Medications supplied by Stores
- Patient’s own medications from home
- Most non-formulary medications
- Medications in non-standardized doses (such as many oral liquids)

Barcode Medication for Bedside Administration presentation:
NYGH Intranet/Pharmacy Services/Medication Guidelines
Symbology of Medication Barcode

- Linear

![Linear barcode example]

or

- 2-Dimensional

![2-Dimensional barcode example]
Scanning 101

The order of **scanning** preference is:

- **SCAN** the inherent barcode on the product itself.
  If not available,

- **SCAN** the barcode on the patient-specific label.
  If not available (eg. nonformulary, POM)

- Nurse will need to check the medication carefully & **bypass the scanning**.
BARCODE SCANNING ISSUES

- “Medication Barcode Issue” ziploc bags will be available in the WOWs on each nursing unit.
  - Place the medication package with the barcode scanning issue in the ziploc bag, or complete the label on the bag;
  - Place bag in the ‘Pharmacy Return Bin’ in the medication room for Pharmacy followup and resolution
  - Call Pharmacy x6098 for ziploc bag replenishment
### The Medication Administration Record

**Continued**

**NORTH YORK GENERAL HOSPITAL**

**MEDICATION ADMINISTRATION RECORD**

**ADMINISTRATION PERIOD: 2006-JUN-24 00:00 TO 23:59**

**Name:** PHARMNET, HENRY  
**Admit:** 2005-FEB-08  
**DOB:** 1984-FEB-08  
**Unit:** 5 North 508-02  
**MRN:** 9900049  
**Sex:** M  
**Age:** 22 Years  
**Ht:** 170.000 cm  
**Wt:** 70.000 kg  
**Attending Physician:** Bent, Maurice A.  
**Printed:** 2006-JUN-23 17:15

**Allergies:**
- oranges, shell fish, abcd ef, testing, acetaminophen, metronidazole, penicillin, tamsulosin, angiotensin converting enzyme inhibitors, opioid-like analgesics

**SEE PATIENT CHART FOR MORE**

---

#### SCHEDULED MEDS

<table>
<thead>
<tr>
<th>TR By / CK By</th>
<th>Start / Stop</th>
<th>Floor / stock</th>
<th>Route/Dose/Frequency</th>
<th>Administration Time</th>
</tr>
</thead>
</table>
| MAY/31 11:30  | 5-Aminosalicylic Acid ER Tab  
              | 500 mg = 1 tab PO 3 times daily ac  
              |  0800   1630  |
| *JUN/30 11:29*|              |               | (For Pentasa)      |
| MAY/31 09:00  | Acetaminophen 160 mg/2 mL Oral Syr  
              | 160 mg = 2 mL PO twice daily  
              | 0900   2100  |
| *JUN/30 08:59*|              |               |                     |
| MAY/31 09:00  | Acetaminophen Oral Susp  
              | 240 mg = 3 mL PO twice daily  
              | I temperature over 39.5 C Shake Well  
              | 0900   2100  |
| *JUN/30 06:59*|              |               |                     |
| MAY/31 14:00  | Vancomycin Inj FOR ORAL USE  
              | 125 mg = 2.5 mL PO 4 times daily  
              | Only if Patient refuse to have IV Dilute contents of 500 mg vial with 10mL SWI.  
              | 0900   1800  |
| *JUN/07 12:50*|              |               | 125mg=2.5mL For Oral use further dilute |
NORTH YORK GENERAL HOSPITAL
MAR VARIANCE REPORT
(nonCPOE nursing units)

Nursing Unit: __________ Date: ______________ Name of RN/RPN: ______________

New orders written after pharmacy hours (1900h) will not appear on the MAR printed to start at midnight. Please transcribe these new orders onto the appropriate MAR and leave copy of original physician orders in designated pharmacy tray. All other discrepancies should be documented in this report and leave in designated pharmacy tray. Unit pharmacists will follow-up at next earliest arrival on unit.

<table>
<thead>
<tr>
<th>Patient Name</th>
<th>MRN</th>
<th>Room No.</th>
<th>Medication &amp; Corrections Needed</th>
<th>Variance Found on MAR (Circle)</th>
<th>F/U by PHMT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Order Missing Dose Route Freq / Rate SCH/PRN D/C Admin Other Time</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Order Missing Dose Route Freq / Rate SCH/PRN D/C Admin Other Time</td>
<td></td>
</tr>
</tbody>
</table>
CRITICAL INCIDENT – SYSTEMS FAILURE

- Order entry: 3 psychiatry medications inadvertently entered under wrong patient
- MAR verification: signed off as ‘verified’; no order exists for these 3 medications in that patient’s chart; no MAR variance
- Patient received medications for 3 weeks!
- Discovered on D/C when reviewing meds prior to admission
Decentralized Unit Dose System -

Key points to remember:

- Medication orders must be pulled in a timely fashion to allow pharmacy to process these orders ASAP (nonCPOE nursing units)

- At cart exchange, multi-dose medications e.g. puffers, creams, eye drops etc. must be transferred to the new cassettes (Pharmacy Technician or nurse)

- Take med cart/WOW to the patient’s room when administering meds

- *Do NOT ‘borrow doses’ from other patient’s drawer due to potential for error and frustration of missing doses for other staff

- Follow procedures for obtaining medications from night cupboard to ensure continuing available supply and followup by Pharmacist the next day
Decentralized Unit Dose System -
Key points to remember (continue):

• When transferring patient within your unit – transfer medications into the ‘new’ cassette. **Do NOT switch** cassettes

• When transferring patient to another unit – place patients’ medications in a paper bag and label with the patient’s name. Transfer medications with the patient

• *Do NOT hoard/stockpile* medications – RETURN to Pharmacy

• *Be familiar with the time for medication drawer exchange* (eg attempting to prepare meds for next dose when they may not have arrived yet - not necessarily “missing”)*
Pharmacist’s Roles

Provide **Pharmaceutical Care** through:

- Establishing rapport with patients
- Collaborating with the health-care team
- Assessing patient’s medication-related needs
- Conducting a medication history
- Reviewing medication orders
- Providing therapeutic drug monitoring and follow-up
- Providing medication education

and much much more!!!
Pharmacist’s Activities

Pharmacotherapy Monitoring

Medication Reconciliation

ADR reporting

Medication Counseling

Medication Order Review

Drug Information

Evidence-Based Practice

Drug Use Evaluation

Clinical Trials

Education and Training

Evidence-Based Practice

Medication Order Review
Pharmacy Technician Roles & Activities

- Preparation of Compounded Pharmaceuticals
- Drug Distribution & Wardstock Management
- Professional Competence & Duty to the Public
- Drug Procurement & Inventory Control
- Filling Medication Orders & Prescriptions

Pharmacy Technicians Work Together With Pharmacists to Provide Optimal Patient Care.
Decentralized Unit Dose System

- Nursing and Pharmacy staff work together in order to ensure safety of our patients
- The system requires team work and good communication
NIGHTCABINET

General Rules

- Use of the nightcabinet should be restricted to after pharmacy hours only
- As courtesy, retrieve 0800h dose for next shift, where applicable
- Current complete list of items that can be found in ALL night cupboards in NYGH intranet – Pharmacy Services
- Two Systems: Manual System or Automated Cabinet
## Night Cabinet List

<table>
<thead>
<tr>
<th>ORAL TABLET AND CAPSULES</th>
<th>FLOOR NIGHT CUPBOARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acebutolol 100 mg TAB</td>
<td>2N NICU 3N 4N 5N 6W 7W 8W 4N Omn cell 6W Omn cell</td>
</tr>
<tr>
<td>Acetaminophen 325 mg Tablet</td>
<td>X</td>
</tr>
<tr>
<td>Acetaminophen 500 mg Tablet</td>
<td>8 X X X 10 10</td>
</tr>
<tr>
<td>Acetaminophen with codeine 8 mg</td>
<td>X X X 5 5</td>
</tr>
<tr>
<td>Acetazolamide 250 mg TAB</td>
<td>X</td>
</tr>
<tr>
<td>Acyclovir 200 mg TAB</td>
<td>X X 8 8</td>
</tr>
<tr>
<td>A.S.A 80 mg chewable tab</td>
<td>4 X X 2 X 4 4</td>
</tr>
<tr>
<td>A.S.A 325 mg TAB</td>
<td>X X X 2 2</td>
</tr>
<tr>
<td>A.S.A with codeine 8 mg TAB</td>
<td>X X</td>
</tr>
<tr>
<td>A.S.A enteric coated 81 mg TAB</td>
<td>X X X 8 8</td>
</tr>
<tr>
<td>A.S.A enteric coated 325 mg TAB</td>
<td>X X X 3 X 10 10</td>
</tr>
<tr>
<td>A.S.A enteric coated 650 mg TAB</td>
<td>X X X 5 5</td>
</tr>
<tr>
<td>Aggrenox 200 mg/25 mg CAP</td>
<td>X</td>
</tr>
<tr>
<td>Aldactazide-25 TAB</td>
<td>X X 3 3</td>
</tr>
<tr>
<td>Aledronate 10 mg TAB</td>
<td>X</td>
</tr>
<tr>
<td>Allopurinol 100 mg TAB</td>
<td>X X X 6 6</td>
</tr>
<tr>
<td>Allopurinol 300 mg TAB</td>
<td>X</td>
</tr>
<tr>
<td>Alprazolam 0.25 mg TAB</td>
<td>X X 5 5</td>
</tr>
<tr>
<td>Alprazolam 0.5 mg TAB</td>
<td>X X X 3 3</td>
</tr>
<tr>
<td>Amantadine 100 mg cap</td>
<td>X X 4 4</td>
</tr>
<tr>
<td>5-Aminosalicylic acid enteric coated 400 mg tab (Asacol)</td>
<td>X X X 12 12</td>
</tr>
<tr>
<td>5-Aminosalicylic acid enteric coated 500 mg tab (Salofalk)</td>
<td>X</td>
</tr>
<tr>
<td>5-Aminosalicylic acid delayed release 500 mg tab (Pentasa)</td>
<td>X</td>
</tr>
<tr>
<td>Aminocaproic acid 500 mg TAB</td>
<td>X</td>
</tr>
<tr>
<td>Amiodarone 200 mg TAB</td>
<td>X X X 10 10</td>
</tr>
<tr>
<td>Amitriptyline 10 mg TAB</td>
<td>X X X 2 5 5</td>
</tr>
<tr>
<td>Amitriptyline 25 mg TAB</td>
<td>X X X 5 5</td>
</tr>
</tbody>
</table>
MANUAL NIGHT CUPBOARD

- Manual unit dose night cupboards (NC) are located on 2NICU, 3N and 7W (Child and Teen & Mental Health Services)

- When items are removed from the night cupboard, the medication night cupboard usage record must be properly filled out in order for proper replenishment by Pharmacy
NORTH YORK GENERAL HOSPITAL - PHARMACY SERVICES  
MEDICATION NIGHT CUPBOARD USAGE RECORD  
NIGHT CUPBOARD LOCATION: __________  
DATE: ____________________  

FOR PHARMACY USE ONLY

<table>
<thead>
<tr>
<th>Nursing unit</th>
<th>Time</th>
<th>Patient’s Name/MRN</th>
<th>Affix Medication Label (Name &amp; Strength of Drug)</th>
<th># of Doses</th>
<th>Nurse’s Name</th>
<th># doses refilled</th>
<th>Filled by</th>
<th>Chked by</th>
<th>Reconciled by</th>
</tr>
</thead>
</table>

**REVISED**

To obtain an item from the Night Cupboard (NC):

1. Retrieve the ziplock containing the needed item from the unit dose NC
2. Take the ‘extra’ label that is provided inside the ziplock, and affix this to the appropriate column on the NC log sheet

Do NOT try to peel off the label that is on the ziplock. *If the extra label inside the ziplock is missing, simply write the name and strength of the drug in the column instead of affixing label.*

3. Fill in the remaining columns (nursing unit / time / patient’s name & MRN / # of doses / nurse’s name)
4. Take the medication and place the empty ziplock in the designated bin by the NC
Automated Nightcabinet

- Located in 4N Medication Room (426) and 6W Classroom (635A)
  - Identical stock in both cabinets, with 600+ items
  - Log in by User ID or by barcode on staff name badge
    User ID = first initial + 7 letters of last name i.e. Adam Smith = asmith
  - At the first log-in, the system will prompt for password setup
  - All transactions are tracked electronically = no need for manual documentation!
PHARMACY SERVICES

Automated Nightcabinet

- One page “Quick Reference” on how to remove medication(s)
- Sign Confidentiality Form
Retrieving the Night Cabinet List

1. From the NYGH Homepage navigation bar, click on Programs and Services
2. Click on Pharmacy Services
3. Click on Night Cabinet
Removing A Medication
Follow these steps:

1. Log in to the system by 1. using your email Username or 2. scanning the barcode on your ID badge AND enter your Password. (If you are logging in for the first time, the system will ask you to register your password. Please use the same password for your email Username and ID badge).

2. Under , it lists all the patients in the hospital. Search your patient by using the key pad to type the first couple letters of the last name. Select the patient by touching the name on the screen.

3. Under the selected patient, touch on the screen to access the Medication list.

4. Under , it displays all medications stocked in the cabinet. Search the medication by using the key pad to type the first couple letters of the Generic or Brand Name. Select the medication by touching the name on the screen.

5. Enter the QUANTITY required. Repeat step 4 for additional medications.

6. Touch when the required medication(s) are selected.

7. Follow the GREEN flashing lights to dispense. If you are removing a medication in the cupboard, push the green flashing button after open the door.

Note: If the medication is “Targeted Substance”, the screen will prompt you to verify quantity in the bin.

8. Confirm the quantity removed on the screen. Accuracy is essential in order for pharmacy to replenish the stock properly.
NORTH YORK GENERAL HOSPITAL

Request for Addition of New Permanent User to OmniCell System

Requested by Unit Administrator/Director: ______________________________ (Please Print)

Nursing Unit/Area: __________________ Date: __________________

User Name: (Last, First) __________________ Position: __________________

(Please Print)

Cerner ID: (if assigned) __________________

I understand that my access code, which consists of an identification code (user ID) and a password, is my electronic signature for all transactions in the OmniCell Cabinets. It will be used to track all of my transactions on the system and will be permanently attached to those transactions with a time/date stamp. These records will be maintained and archived as per the hospital policy and will be available for inspection by all regulatory bodies.

My user ID will be assigned by the Pharmacy System Administrator. It is my responsibility upon receipt of this ID number, to immediately sign on the OmniCell Cabinet and enter a new password of my choice. There will be no record of this password, therefore, should I forget my password I must contact my nurse manager.

I also understand that to maintain the integrity of my electronic signature, I must not give this password to any other individual. Each individual Password is selected by, and known only to the user. This password is encrypted throughout the OmniCell System and cannot be accessed by Pharmacy Users, Nursing Management or OmniCell employees. If for any reason I feel an individual has knowledge of my password, I must select a new password immediately and notify my Nurse Manager. A password can be reset by any member of nursing management on the unit and re-entered by the user at his/her convenience.
NARCOTICS AND CONTROLLED DRUGS:

- ORDERING
- RECEIVING
- SHIFT COUNT & BALANCE FORWARD (WITNESS)
- ADMINISTRATION RECORD
- WASTING (WITNESS)
NARCOTICS AND CONTROLLED DRUGS:

- NARCOTICS ..... 
  - BREAKAGE
  - LOSS / THEFT
    NOTIFY PHARMACY IMMEDIATELY
  - KEY LOST
    NOTIFY PHARMACY IMMEDIATELY
<table>
<thead>
<tr>
<th>Qty</th>
<th>Item ID</th>
<th>Description</th>
<th>Checked</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>34185</td>
<td>MORPHINE 10MG TAB</td>
<td>Bin ID 0</td>
</tr>
<tr>
<td></td>
<td>SKU:</td>
<td>Morphine 10mg TAB</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>34485A</td>
<td>MORPHINE BULK 5MG TAB</td>
<td>Bin ID 0</td>
</tr>
<tr>
<td></td>
<td>SKU:</td>
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<td>Percocet TAB</td>
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</table>

FILLED BY: ______________________, Pharmacy DATE: ____________
DELIVERED BY: ____________________, Pharmacy DATE: ____________
RECEIVED BY: ____________________, Nursing DATE: ____________

**Items Returned**

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Quantity</th>
<th>Reason For Return</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
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<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

NORTH YORK GENERAL 4001 Leslie St. North York Ontario M2K 1E1 Tel. 416-756-6000 DEA:
Top 5 Medications Reported as Causing Harm or Death through Medication Errors

5. Fentanyl

4. Heparin

3. Hydromorphone

2. Morphine

1. Insulin
Top 5 Medications Reported as Causing Harm or Death through Medication Errors

- 3 Narcotics – Morphine, Hydromorphone, and Fentanyl: account for over 20% of all the reported medication errors causing harm or death in Canada

ISMP Canada 2008
http://www.ismp-canada.org/
Risk of Mix-Ups

69 year old man presented to ED with a chest injury sustained while horseback riding. Prior to discharge, an order for morphine 10 mg IM for pain was written. However, hydromorphone was mistakenly selected and administered. Patient was discharged home. The error was discovered after a scheduled narcotic count. He was finally located, but he arrested. He eventually died despite rescue efforts.

## Adult Equianalgesic Opioid Comparison Chart

<table>
<thead>
<tr>
<th>Opioid</th>
<th>PO</th>
<th>Parenteral</th>
</tr>
</thead>
<tbody>
<tr>
<td>Codeine</td>
<td>200 mg</td>
<td>120 mg</td>
</tr>
<tr>
<td>Morphine</td>
<td>20 mg</td>
<td>10 mg</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>4 mg</td>
<td>2 mg</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>10 mg</td>
<td>---</td>
</tr>
<tr>
<td>Meperidine</td>
<td>300 mg</td>
<td>75 mg</td>
</tr>
</tbody>
</table>

NOTE: This chart is intended for equianalgesia comparison purposes only.

NYGH Hospital Formulary Guideline
Recommendation: Limit Access

- Reduce, or eliminate entirely if possible, hydromorphone stock in patient care units.
- Both morphine and hydromorphone are available in 10 mg/mL ampoules – Avoid stocking morphine and hydromorphone in the same strength.
- Make only the 2 mg/mL strength of hydromorphone available if possible, except perhaps in palliative care units.
- Automated dispensing machines and barcoding could also help.

<table>
<thead>
<tr>
<th></th>
<th>Immediate Release</th>
<th></th>
<th>Long-Acting Formulation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tablets</td>
<td></td>
<td>CR Capsules</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td></td>
<td>1 mg 1 mg 2 mg 2 mg 4 mg 8 mg 4 mg</td>
<td>3 mg 3 mg 12 mg 12 mg 18 mg 18 mg</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>‘Oxy IR’ Tablets</td>
<td>5 mg 5 mg 10 mg 10 mg 20 mg 20 mg</td>
<td>5 mg 5 mg 10 mg 10 mg 20 mg 20 mg</td>
</tr>
</tbody>
</table>

**NOTE:** The size and shape of the tablets and capsules shown here are not in scale with the real products. Compendium of Pharmaceuticals and Specialties, online version (e-CPS) 2009.
Confusion Can Happen

Case 1:

- 68 year-old cancer patient whose pain was well controlled with hydromorphone 12 mg po q4h. In order to improve convenience, the order was changed to Hydromorph Contin® 36 mg po q12h.
- It was noted, however, that the pain control was not as effective and the order was changed back to the original regimen. This order was incorrectly entered by a pharmacy staff as Hydromorph Contin® 12 mg po q4h.
- The MAR reflected the mistake. Nurses working during the next two days correctly identified the error and manually corrected the MAR entry.
- On the third day, however, the discrepancy was not noticed, and three doses of the Hydromorph Contin® were given within a 10-hour time period. Patient’s clinical outcome was not affected.

Confusion Can Happen

Case 2:

- An order for OxyContin® 20 mg po q8h was mistakenly transcribed by clerical staff to the nursing MAR as OxyContin® 20 mg po q 3 h.
- Several doses were given q3h before the error was caught. Patient was unresponsive. Naloxone was administered to reverse the opiate effects.

Pearls

- Be aware of the differences between immediate-release and long-acting products

- Be suspicious if a long-acting narcotic is ordered more frequently than q8h

- MAR variance checks are significant double checks in the process

- Your role in questioning and communicating is KEY: ‘if in doubt, check it out’.
Codeine Oral Syrup

Case: A 7 year-old boy seen at an urgent care clinic on a weekend was prescribed codeine syrup 15 mg po q4h prn for pain. The pharmacist dispensed the codeine syrup (5 mg/mL solution) with the label reading “give 1 tablespoonful every 4 hours if needed”

“mg” vs “mL”

- Order entry and MAR variance checks – be very careful about the distinction between “mg” (amount of medication) and “mL” (volume of medication).
- 1 tablespoonful = 15 mL; 1 teaspoonful = 5 mL
- It is important to find out the concentration (mg/mL), in addition to the volume (mL), in order to know exactly how much of the drug (mg) the patient is on.
- Single use containers of codeine (5 mg/mL; 6 mL and 12 mL) have now replaced multidose bottles.
- Discard unused portion (also applies to other single use oral liquids/injectables).