Medication Preparation and Administration

Using Reliable and MedSelect Correctly to Prevent Medication Errors
Before You Begin

• Review all of the information to follow.

• Know you will be given a written test.

• Return your completed test to Staff Development with your name and date.

• Know that you must have 80% correct on the test to receive 2 credit hours for continuing education on the preparation and administration of medication.
Those who prepare and administer medications to patients need to follow their facilities policy to ensure that the correct medications are administered.

The reason safety measures are built into procedures include increased patient safety, improved quality of care, decreased liability and reduced costs.
Preparing for Med Pass

- WASH YOUR HANDS!!!
- Make sure you have the EMR screen and the ADT screen open to the same patient
- Read each med listed as due to be administered in EMR and find it on the ADT screen
- If the med listed in the EMR and the ADT are exactly the same (med, dose, route), highlight that med in the ADT screen
- If there are parameters that must be met before a med can be administered, make sure they are met
- After all meds are highlighted in ADT that are due, begin dispensing the meds to be administered
Preparing for Med Pass

- As each individual med is dispensed by the ADT, compare the med label with the med order in EMR, looking at med name, dose and route (1st check)
- If the med dispensed is correct, scan or verify it in the ADT, then, close the drawer, cabinet or refrigerator that the med was dispensed from (2nd check)
- Continue following this procedure for every med highlighted on the ADT screen and in EMR
- Once all meds have been dispensed, carefully compare each med label with the med order in EMR, looking at med name, dose and route (3rd check)
- If correct, open med package and place in med cup
Administering Medications

- If there are parameters that must be met prior to administering a medication, have the information ready to document in EMR
- **DO NOT THROW MED PACKAGE AWAY!**
- After all meds have been checked and put in med cup, you prepare to administer the meds to the patient
- Verify the identity of the patient you are going to administer the meds to, using 2 identifiers
  - Ask patient for name & date of birth
  - Look at patient and the patient’s picture in EMR
  - Have a regular staff verify the identity of the patient
Administering Medications

- Observe the patient swallowing the medications
- Look in patients mouth if there is any doubt meds were swallowed
- If the medication ordered is a treatment and the patient administers it, you must observe to see that the correct procedure is followed for administration
- Using the empty medication packages, document your signature in EMR for each med that you administered along with any required parameters
- Always sign the medications you administer in EMR immediately after giving them
Rules to ALWAYS Follow

- If a patient ever questions a medication you have prepared for administration, review the medication order in EMR for accuracy.
- If a patient refuses a medication, find out why before signing the EMR as refused, you might be able to ask the patient to take it again before the allotted time for that meds administration has run out.
- If a medication needs to be crushed &/or added to a cup with applesauce or pudding, legibly write the patients first name and last initial on the cup.
- NEVER prepare meds for more than 1 patient at a time.
Rules to ALWAYS Follow

- ALWAYS utilize infection control practices
- ALWAYS use 2 patient identifiers
- ALWAYS administer medication only you have prepared
- ALWAYS know the purpose and the expected outcome of the medications you administer
- ALWAYS have another nurse witness insulin preparation before administration
REMEMBER BEFORE USING MedSelect TO PREPARE MEDICATIONS

Every time the Automatic Drug Tower opens a drawer, cabinet or refrigerator to dispense medication, there is a charge made to the patients account.

You are NEVER to shut that door or drawer until you have scanned or verified that medication with the ADT.

If you only took 1 pill when 2 were needed, then open the drawer again for the 2nd pill, you have just caused a charge for 4 pills.

SO DON’T DO THAT!

Return the 1 pill and start over.
We **ONLY** use the buttons labeled “Find”, or “Usage” on this screen in MedSelect, so don’t use any of the other buttons!
Any time a routine medication needs to be held for any reason or is not dispensed for administration, i.e. outside parameters or a physician orders a hold for a medication, you need to document the medication as “Not Given” in EMR, AND you must remember to “Dismiss” the medication in the ADT screen. The reason the medication wasn’t given must be documented in both the EMR and the ADT.

Remember: if a patient refuses an routine oral med, but the med is still given, only as an IM (give IM prn if refuses po) per physician order, then the oral med must still be “Dismissed” in the ADT.
Dismissing a Med in MedSelect

To make a medication listed in the ADT drop off so that it no longer comes up as due to be given, you need to touch the “Dismiss” button. This will cause a screen to come up with a list of reasons for a medication to be dismissed. Touch the most appropriate reason listed for dismissing the medication.
The “Cancel” Dispense is only used when NO medication has been removed from the MedSelect dispensing tower – you must touch “Cancel” dispense **BEFORE** the drawer, cabinet or refrigerator is closed.
Refusals of Medication

Return refused meds to the MedSelect dispensing tower only if the medication package wasn’t opened.

(A return drawer will open and the unopened med is to be placed in the drawer with the slip that was generated - you are to write the return reason on this.)

Select “Waste” if the medication package was opened & dispose of it in a sharps container. *Controlled medications require a witnesses electronic signature.
IF YOU SHUT THE ADT DRAWER AND YOU HAVE REMOVED THE WRONG MEDICATION OR HAVE THE WRONG STRENGTH:

(There is only 1 correct way to return a med)
You must return the medication to the ADT drawer by following the next slide of instructions for “Returning a Medication”

Once the incorrect medication is returned you can highlight the medication and dispense again.

Following the outlined steps corrects the patients usage
## Returning a Medication

<table>
<thead>
<tr>
<th>Trade</th>
<th>Name</th>
<th>Qty</th>
<th>Status</th>
<th>* Date/Time</th>
<th>User Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Strength

- **morphine inj 10MG/ML**
  - 10 MG VIAL Taken MedOrder 21-Oct 22:13 Soukup, K

- **heparin/250ml 0.45ns 25,000 UNITS**
  - 250 ML INFUS Taken MedOrder 20-Oct 18:06 RN, N

- **clopidogrel tab 75MG**

- **diazepam 5MG**
  - 1 TAB U/D Taken MedOrder 20-Oct 15:39 RN, N

- **morphine inj 10MG/ML**
  - 10 MG VIAL Taken MedOrder 19-Oct 16:18 RN, N

- **heparin/250ml 0.45ns 25,000 UNITS**
  - 250 ML INFUS Taken MedOrder 19-Oct 16:18 RN, N

- **diazepam 5MG**

- **diazepam 5MG**

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Touch the medication to be returned.
Touch the “Return” button.
Returning a Medication

Make sure to put in the correct quantity being returned before you click the return button.

Select a “Return Reason”
## Returning a Medication

<table>
<thead>
<tr>
<th>Trade</th>
<th>Generic</th>
<th>Name</th>
<th>Qty</th>
<th>Status</th>
<th>Date/Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>morphine inj</td>
<td>10MG/ML</td>
<td>10 MG</td>
<td>1</td>
<td>Returned</td>
<td>21-Oct 22:14 Soukup, K</td>
</tr>
<tr>
<td>morphine inj</td>
<td>10MG/ML</td>
<td>10 MG</td>
<td>1</td>
<td>Taken</td>
<td>21-Oct 22:13 Soukup, K</td>
</tr>
<tr>
<td>heparin/250ml</td>
<td>0.45ns</td>
<td>25,000 UNITS</td>
<td>1</td>
<td>Taken</td>
<td>19-Oct 16:18 RN, N</td>
</tr>
<tr>
<td>clopidogrel</td>
<td>tab</td>
<td>75MG</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>diazepam</td>
<td>5MG</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>morphine inj</td>
<td>10MG/ML</td>
<td>10 MG</td>
<td>1</td>
<td>Taken</td>
<td>19-Oct 13:52 Soukup, K</td>
</tr>
<tr>
<td>heparin/250ml</td>
<td>0.45ns</td>
<td>25,000 UNITS</td>
<td>1</td>
<td>Taken</td>
<td>19-Oct 15:05 RN, N</td>
</tr>
<tr>
<td>diazepam</td>
<td>5MG</td>
<td>1 TAB</td>
<td>1</td>
<td>Taken</td>
<td>19-Oct 13:52 Soukup, K</td>
</tr>
</tbody>
</table>

The dose removed has been credited to the Patient.

Touch the “Back” button to return to the previous screen.
Wasting in MedSelect

Go to Patient Browser, enter Patient and click “Usage”.

![Patient Browser Interface]
Wasting in MedSelect

When the “Patient Usage Browser” opens, touch and highlight the medication to be wasted.

Once the medication is highlighted, touch “Waste”.

<table>
<thead>
<tr>
<th>Trade Generic</th>
<th>Name</th>
<th>Qty</th>
<th>Status</th>
<th>* Date/Time</th>
<th>User Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>morphine carpuject 2MG/ML</td>
<td>2 MG</td>
<td>1MG</td>
<td>Wasted</td>
<td>MedOrder</td>
<td>21-Oct 22:18</td>
</tr>
<tr>
<td>morphine carpuject 2MG/ML</td>
<td>2 MG</td>
<td>1</td>
<td>Taken</td>
<td>MedOrder</td>
<td>21-Oct 22:15</td>
</tr>
<tr>
<td>lorazepam 1MG</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OXYcodone 5MG/325MG</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>lorazepam 1MG</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>zz-Pca Morphine 1 MG/ML</td>
<td>50 ML</td>
<td>1</td>
<td>Taken</td>
<td>19-Oct 16:35</td>
<td>Admin, A</td>
</tr>
<tr>
<td>lorazepam vial 2MG/2ML</td>
<td>2 ML VIA</td>
<td>1</td>
<td>Taken</td>
<td>19-Oct 16:35</td>
<td>Admin, A</td>
</tr>
<tr>
<td>ibuprofen 800MG</td>
<td>1 TAB</td>
<td>1</td>
<td>Taken</td>
<td>19-Oct 16:35</td>
<td>Admin, A</td>
</tr>
</tbody>
</table>
Wasting in MedSelect

The Waste Amount Window Opens.

1. Touch the “Waste Reasons”.
2. Enter the “Quantity to Waste”.

Make sure you enter the correct measurement i.e. did you waste 0.5 tab or 1 tab, if you waste a liquid, use ml.
A supply setting determines whether a witness is required for the waste. If no witness is required, the button will say “Waste” and you will click to waste. Otherwise, click “Witness” for the second person to witness.
Wasting in MedSelect

If a witness is required, the “Witness Login” screen will appear. The witness will log in and touch the “Accept” button to complete the waste.
“Override” in MedSelect

- The ONLY time “Override” should be utilized in the ADT is when the medication you need is not available to choose because pharmacy is closed or it isn’t listed as due, i.e. a STAT med needs to be given but is not listed in the ADT for that patient.
- There must be a nurse as a witness to visually verify that the correct medication, dosage and route has been selected.
- You must go to the correct patient by selecting “Find” from the patient browser buttons to dispense the medication (remember MedSelect is the system used for billing of medications).
“Override” in MedSelect

If you need medication for a patient on your unit and that medication is not available in your units ADT, you must pull the medication by going to a unit who has that med in their ADT.

Once on the unit with the medication you need in their ADT, use “Find” to select the patient on your unit who needs the medication, then dispense that medication from that patient's screen. REMEMBER, you must have a second staff (a nurse) present to verify that you dispensed the correct medication.
An Inventory List of all medications found in each units ADT is kept in timekeeping.
“Show All” in MedSelect

When the arrow points to “Show Due” it will only show those meds due to be given.

Make sure that you **ONLY** use “Show All” in the ADT when you need to view all medications a patient is prescribed.

Examples of why you would need to “Show All” medications:
- To administer a medication outside it’s prescribed time frame such as to give a medication early (give a 4pm med at 2pm before they leave on a day pass)
- If you returned or wasted a med because a patient refused it after the package was opened, then shortly after that the patient changes their mind and decides to take the medicine after all (to find the medication to dispense it again you have to click on “Show All”)

When the arrow points to “Show Due” it will only show those meds due to be given.
During Network Failures

IMPORTANT – DO NOT TURN SYSTEM OFF

During “Offline” Operation

☐ Needed medications may be obtained via “MedSupply”.

DO NOT REBOOT WHILE OFFLINE

☐ Medication information will be available.
☐ Medications withdrawn during database loss may be wasted/returned.
☐ Medications accessed prior to the Network failure may NOT be wasted until the Network is back online. Alternatively wastage can be documented on a manual Narcotic record.

When MedSelect is Offline, the top of the screen will state “Offline”
During Network Failures

- If the ADT is offline, wait no more than 30 minutes and if it doesn’t come back up, Doug Orr needs to be notified.
- If Reliable is offline or not working, IT needs notified right away and a hardcopy of the meds to be administered needs to be utilized until Reliable is working again.
MedSelect Malfunctions

- When a control medication does not dispense from the ADT locked cabinet:
  - GET A NURSE AS YOU MUST HAVE A WITNESS
  - Try to dispense again (2 should drop if supposed to have dispensed 1) and send an Email to or call Doug Orr
  - If an extra pill is dispensed, return it to the ADT with an explanation written on the print out that is to be attached to the returned pill.
  - If ADT does not dispense any after the second try or only dispenses 1 instead of 2, send an Email to or call Doug Orr

- Any tower malfunction or mistake that occurs must be reported to Doug Orr via Email
Medication Errors: Everyone’s Concern

What are medication errors? They are drug errors that cause or could cause harm to a patient.

They can result in:

- Serious physical problems for patients
- Emotional trauma for staff, patients and their families
- Loss of trust in our facility and in the health-care system in general.
Some Important Terms

- **Medical errors** – These are any type of diagnostic or treatment related errors that cause or could cause harm to patients.
- **Sentinel events** – These are unexpected events that result in, or could result in the death or serious physical injury of a patient.
- **Performance improvement** – This is a continuous effort to find new and better ways of doing things.
Areas of Concern for Errors

- Prescribing
- Dispensing
- Administering:
  1. Omission Error
  2. Wrong Time Error
  3. Improper Dose Error
  4. Unauthorized Drug Error
  5. Human Error
Examples of prescribing errors include:

- Ordering a medication dose that’s either too strong or too weak
- Prescribing medications that can have dangerous interactions or trigger an allergic reaction
Dispensing

Examples of dispensing errors include:
- The wrong medicine or dose
- The right medicine in the wrong form or strength

NURSES & QMA’S MAY NOT DISPENSE MEDICATIONS!
When you prepare a medication for administration and have someone else administer the medication, you have just dispensed meds and this is illegal.
Administering

Examples of administration errors include giving a medication:
- By the wrong route (for example, by mouth instead of by injection)
- To the wrong patient
- At the wrong time
- In the wrong dose
Omission Error

Examples of omission errors include:

- Failure to administer an ordered dose to a patient within the designated time frame
- This may occur when a patient is off the unit, or the prescribed drug isn’t available on the unit
Wrong Time Error

Examples of wrong time administration errors include:

• Administration of medication outside a defined time interval from its scheduled administration time without obtaining an order for a time change.

• Administer all medication on time. A deviation of 60 minutes before or 120 minutes after designated time is permitted unless otherwise indicated i.e., insulin ordered ac or pc meals.

• If an ac meal insulin is administered after the meal due to hypoglycemia (without an order to change the time the insulin is to be given).
Incorrect Dose Error

Examples of incorrect dose errors include:

- Administration to the patient of a dose that is greater than or less than the amount ordered
- Occurs when the medication prescribed is not carefully compared to the medication being given three times prior to administration of medications i.e., only 1 tablet given instead of 2
Unauthorized Drug Error

Examples of unauthorized drug errors include:

- Administration to the patient of a medication not ordered by the physician
- The medication ordered is a delayed release and a extended release medication is given
- Medication ‘set up’ for a patient is given to the wrong patient i.e., when there are two patient’s with the same last name and Edna is given Edith’s medication
Human Error

Causes of Human Error

- Usually occurs when the Medication Record is not used accurately, or not used at all, in the preparation and administration of medications

- Distractions, detailed staff, insufficient staffing and workload increase are some of the contributing factors to medication errors
Human Error

Prevention of

- Read the EMAR and the medication labels 3 times during preparation of meds
- Medications are to be set up one at a time and identified for correct medication, dose, time, route, patient and documented right after administered (the 6 rights)
- Identify the patient using 2 identifiers before administering any medicine
- Sign off medications on the EMAR immediately after the patient’s medicine has been given
Other Common Causes of Errors

- The storage and stocking of drugs. For example, the risk of someone picking up the wrong drug is higher when medications are set up in advance and set on a counter.
- Patient misidentification
- Lack of staff education
- Distractions.
After the Error

It is important for staff to report medication errors. This is a crucial part of preventing future mistakes. Any drug error that harms -or could harm- a patient should be reported as soon as possible.

Timely reporting makes it easier to determine what went wrong, and once the cause(s) are found, plans can be made to prevent future problems.
The Medication Error Report form is not about blame.

If the policy and procedure is followed and there is an error, it is used to figure out how the system &/or process can be improved.

In the case of medication errors, JCAHO requires an investigation of each error, to look deeper for the cause of each specific error.

In a step-by-step method, an understanding of what went wrong and why is made so that improvements can be implemented.
PREVENTION is KEY!

To keep medication use safe in the first place, it’s important to:

- Know the definition of a medication error. This includes “near misses”.
- Know our system for reporting and handling incidents.
- ALWAYS follow policy on the preparation and administration of medications.
- Utilize the 6 “rights” of medication administration.
- Store medications properly.
- Take training seriously.
- NEVER rely on memory.
SPECIAL REMINDERS

NEVER SELECT SAVE FOR YOUR PASSWORD ON RELIABLE.
WHEN YOU SELECT “GIVEN” IN RELIABLE, THIS IS **YOUR** ELECTRONIC **SIGNATURE** AND IF YOU DID NOT ADMINISTER THE MEDICATION THIS IS FALSE DOCUMENTATION!
Instructions Now That You Have Completed the Presentation:

Please print this last page, print & sign your name and date it, then send it to Diane Mustard in Staff Development. Your name will then go on a list of those who have completed this presentation. If you have a referral to attend class, you will be scheduled for a class, otherwise, you will be observed preparing and administering medications to 6 patients by a Staff Development nurse educator and given a written test that you will need to take in their presence and pass by 80%. If you do not pass the test with 80% or make errors in the preparation or administration of medications that would require a med error to be completed, you will be scheduled to attend a class in Staff Development.

______________________________
PRINT NAME

______________________________  ______________________
SIGN NAME                      DATE