

## AURORA SYSTEM NURSING ALLIANCE – SYSTEM POLICY

### POLICY NO. 1009

Approved: 12/05

Effective: 12/05

## ELECTRONIC MEDICATION ADMINISTRATION RECORD (eMAR)

### I. Purpose

To provide direction for the transcription and documentation of medication administration in the electronic record.

### II. Policy

- A. An electronic Medication Administration Record (eMAR) is an online form that provides a permanent archived medical record of medications administered.
- B. An eMAR will be generated for any inpatient and residential patient.
- C. Any printed versions of the MAR will not be considered part of the medical record except for: (1) those sites documenting chemotherapy on the paper MAR; (2) the Transfer Medication Reconciliation Checklist, which becomes a physician order sheet.
- D. Whenever possible, it will be the responsibility of the Clinical Staff to assure all meds are given and documented in eMAR for their shift prior to leaving.

### III. Procedure

#### Definitions

**Med Admin Tab** contains medication administration documentation information including the date and time medications were given or not given. Medications ordered but not documented will not appear on the Med Admin Tab.

**Med Profile Tab** contains all encounter specific current and past medications; and home medications ordered at AMG clinics.

**eMAR Downtime Form** is a paper eMAR log generated during a downtime.

**Clinical Staff** is defined as those individuals who by license, policy and competency can administer medications.

#### General Guidelines

- A. To ensure patient safety and congruency of multiple sources of allergies, allergy information with reactions and severity or unable to determine, must be documented and “**marked as reviewed**” in the computer before medications will be processed/dispensed by pharmacy. Pharmacy will not process medication orders that have a review date greater than 72 hours (relative to the current admission). One copy of the Allergy report is printed and filed in the patient’s chart for downtime purposes.
- B. The patient’s admission height and weight must be documented in the computer. That information will be available to Pharmacy.
- C. Pregnancy and lactation will be documented on the Admission History. That information will be available to Pharmacy. Sites not utilizing the Cerner Electronic

- Admission History must communicate to Pharmacy the patient's pregnancy/lactation status.
- D. Military time will be used to document medication administration.
  - E. Medication administration documentation can be done 28 hours in the past and 1 hour in the future.
  - F. **ALL** physician order sheets must be sent to pharmacy for pharmacy to determine appropriate entries onto eMAR.
  - G. Medication orders are processed by pharmacy in PharmNet in order for them to display on the eMAR/medication task list.
  - H. Prior to administering any new medications, the Clinical Staff will verify new medication orders by comparing the medication order against the eMAR medication order.
  - I. The Clinical Staff will document administration (Performed) date/time, dose, route, site (injections) along with full name (Performed by) from the medication detail window. The medication administration detail window is accessed from the eMAR or from the Medication task list in the computer.
  - J. Pharmacy will determine the need to call an unscheduled computer downtime and in the event of a computer downtime will print and distribute a paper MAR for each patient.
  - K. All actions completed in eMAR are tracked and recorded by the name and login of the user. The Clinical Staff must always log off the computer when finished. Never leave an open program unattended.

### **New Orders**

- A. Medication orders should be written according to the site specific Medication Safety Policies.
- B. To initiate the medication order process, all new orders will be sent to Pharmacy by either the Clinical Staff or the Health Unit Coordinator, including the date, time and initials.
- C. The Pharmacist or Pharmacy Technician (requires verification by a Pharmacist) enters the order into PharmNet and the order populates the eMAR/ medication task list.
- D. Verification on New Medication Orders
  1. The Clinical Staff will verify (sign off) all medication orders in the chart on the original physician order.
  2. The Clinical Staff will verify in the computer the eMAR medication entry compared to the written order.
    - a. The eyeglasses icon will be an indicator for orders that have NOT been verified by the nurse.
    - a. Verification will be done from within the "Orders" tab of the patient's electronic chart under the "Orders for Nurse Review" sub tab. Clicking on the "Review" button (lower right) will complete verification. Never click the "Review" button if the eMAR medication entry does not match the physician's order.
    - b. The eyeglasses icon will disappear from the medication entry/medication task list when the orders have been verified.
    - c. If a nurse determines that a medication is not entered correctly or has a question about the interpretation of a physician's order, the order must be clarified with the pharmacy or the physician. The medication will not be marked as reviewed until the order is clarified.
  3. Verification of Chemotherapy Medications will involve a paper process.

- E. The Clinical Staff may choose to give the medication before it populates the eMAR. **This should only be done when a delay in administration would be clinically harmful to the patient or immediate care takes precedence – otherwise medications should not be given until transcribed to ensure all safety measures are employed.** If the medication is given before it populates the eMAR, the Clinical Staff will document medication administration on the original physician order sheet to prevent duplicate administration by another caregiver. Documentation will include the following: the word “given”, date and time the medication was given, site for injections and initials. When the medication appears on the eMAR it will be documented for the time it was administered (by proxy personnel, if necessary) as recorded on the original physician order sheet.
- F. Dose Range Medications: If a medication order contains a dose range, it will appear differently on the eMAR depending on the type of Unit-Based Cabinet utilized at each hospital.
1. **Pyxis® sites with Med Profile**– Dose ranges will be entered on one line item on the eMAR. Example order: Morphine 1mg-4mg IV q2h prn. The order will appear as a morphine range order on the eMAR and the Clinical Staff will document the exact dose given in the charting window. Profiled Pyxis® machines allow this one line item to grant the Clinical Staff access to the appropriate strengths of morphine.
  2. **Pyxis® sites without Med Profile** – Dose ranges will be entered on one line item on the eMAR. The pharmacist will enter the lowest dose of a specified range. Example order: Morphine 1mg – 4mg IV q2h prn. The order will appear on eMAR as Morphine 1mg IV q2h prn with an order comment indicating, “Dose = 1mg to 4mg.” The Clinical Staff will document the exact dose given in the charting window.
  3. **AcuDose® sites** – Dose ranges will be entered on multiple line items on the eMAR as is necessary to allow the Clinical Staff to access the appropriate drug product for the ordered medication dose range. Example order Morphine 1mg-4mg IV q2h prn. This order will appear on eMAR as two or more entries to allow access to both the 2mg tubex product and the 4mg tubex product. The order comments indicating the dose range will appear on all entries. The RN will document the exact dose given in the charting window
- G. Dual Route Medications: Scheduled or PRN
1. **Scheduled** medication orders will be entered by Pharmacy as the most appropriate route for the patient, with an order comment indicating to the Clinical Staff that the alternate route is available if needed. The pharmacist will compare the ordered medication to the other orders on the patient’s medication profile and assess which route should be most appropriate for the patient. For example, a Dexamethasone 4mg IV or PO order. If the majority of the scheduled medications on the patient’s profile are PO, then the RPh would enter the PO Dexamethasone and include an order comment to the effect of “Notify RPh if IV form needed.” If the majority of the scheduled medications on the patient’s medication profile are IV, then the RPh would enter the IV Dexamethasone and include an order comment to the effect of “Notify RPh if patient can take PO.”

2. **PRN** medication orders will be entered by Pharmacy as necessary to represent the number of drug dosage forms needed to provide the medication to the patient. For example, Potassium 10mEq IV/PO order would require two line item entries, one for the IV product and one for the PO products. Whereas a Potassium 10mEq PO/NG order would only require one line item entry because the NG product may be given orally as well as per the NG.
- H. Physician Order for Medication Hold: Pharmacy Order Process
1. If a physician orders "Hold Lasix." This order will be discontinued.
  2. If a physician orders "Hold AM dose of Lasix", the existing order will be discontinued and a new order will be re-entered for the appropriate future start date/time. If necessary, a stop date could be added to the existing order of midnight tonight and then a new order would still be entered for the appropriate future start date/time.
  3. If a physician orders a "Hold Lasix times 3 doses," the existing order will be discontinued and a new order will be re-entered for the appropriate future start date/time.
  4. If the Clinical Staff disagrees with the discontinued order, or the new order with the future start date/time, the Clinical Staff should notify the RPh to clarify the original order.
- I. Flagged Information: Administration information entered into the system is communicated and flagged in various ways:
1. Pharmacy order comments will be seen on the bottom of the eMAR label when the mouse is placed on the comment or in Order Information.
  2. Physician administration orders, written as part of the order, will be part of the medication entry on the eMAR. (Sliding scale insulin doses are an example.)
  3. Pharmacy notes can be flagged with a pushpin icon. The clinical staff will click on the icon to read the administration information. (Do not crush or chew is an example)
  4. Clinical Staff communication information related to the administration of that medication will be flagged with a paper-clipped note icon. The Clinical Staff will click on the icon to read the administration information. (Takes med better with applesauce is an example). The note can be changed or cleared by the Clinical Staff.
- J. Non-recurring Medications (STAT's, NOW's, One-time's or ASAP)
1. The patient's nurse will be notified of STAT, NOW, One-time and/or ASAP orders.
  2. The Pharmacy will be notified of the STAT, NOW, One-time or ASAP order.
  3. Pharmacy will enter the medication into PharmNet for population of the eMAR/medication task list.
  4. The Clinical Staff will document administration of the medication for the date/time it was administered.
  5. Future Medications
    - a. Pharmacy enters future medication into PharmNet for the appropriate start date and time.
    - b. The future medication will populate the eMAR in the correct date/time column.
    - c. The Clinical Staff will verify in the computer the eMAR medication entry compared to the written order.

- K. Discontinued Medications
  - 1. The pharmacist or pharmacy technician (requires verification by a pharmacist) will enter the discontinued order into PharmNet.
  - 2. The discontinued medication will be grayed out on the eMAR but will be accessible for documentation (necessary so that medications already administered prior to discontinuation but not yet documented can be documented).
  - 3. The Clinical Staff will verify in the computer the eMAR medication entry compared to the written order.
  - 4. The nurse checking the orders in the chart will report any discrepancies noted to pharmacy immediately.
  - 5. A medication may be discontinued at a future time.
- L. One Time Dosage Adjustment of a Scheduled Medication
  - 1. The Clinical Staff will notify pharmacy of the one time dosage adjustment.
  - 2. Pharmacy will enter the one time adjustment into PharmNet to populate the eMAR/medication task list.
  - 3. The Clinical Staff will document administration of the one time medication. The Clinical Staff will also document “Not Given” against the original regularly scheduled medication dose, so that other staff understands the dose was not missed. (Insulin doses changed for one administration time would be an example).
- M. Medications Not Given, Medications Held: Nursing Documentation
  - 1. If the medication will **NEVER** be given, chart the medication as “**Not Given**” which requires a “Comment”. Do not use the Additional Dose function. (Digoxin not given due to bradycardia is an example).
  - 2. If the medication is legitimately charted as “Not Given” but the physician requests the dose to be administered anyway, then use the additional dose function to chart the medication when it is administered.
  - 3. If a medication is to be held/delayed because the patient is unavailable (i.e. in radiology) use the “Additional Dose” option. **Chart using “Additional Dose” function at the scheduled time the med was held** and indicate as “Not Given” and include the reason.
    - a. Using the Additional Dose Function to chart a held medication keeps the dose available (in red) to chart on when the patient returns or is able to take the Medication.
    - b. Medications given when the patient returns are documented for the date/time they were administered and the reason they are not on schedule is entered in the Comment field of the medication administration detail window.
    - c. Medications that were not documented as given by the Clinical Staff now off-duty, may be documented by the on-duty Clinical Staff upon appropriate verification of administration. (See Proxy Documentation)
- N. Documentation by Proxy
  - 1. To document by proxy, the Clinical Staff who documents the medication (but has not administered the medication), will enter the name of the Clinical Staff in the “Performed Field” (The person who actually administered the medication).
  - 2. The Clinical Staff documenting the medication administration is now listed as Proxy Personnel.

3. Proxy documentation is in compliance with site-specific Medication Safety policies.
- O. Intravenous Fluids (IV's)
1. IV's will be documented at the date/time the IV bag was hung using the "Begin Bag" function on the IV Administration detail window.
  2. Temporary Rate changes will be documented in the computer for the duration of the rate change by accessing the "Rate" function within the IV Administration detail window.
  3. Permanent Rate changes will be entered as a new order by pharmacy.
    - a. If the IV fluid is the same and only the rate changes, the nurse may document the rate change at the time it occurred on the existing IV in order to capture the correct time the rate was changed. The next bag will be documented against the new IV.
    - b. If the IV fluid is changed, the nurse will document against the new IV /new rate at the time the change occurred.
  4. An IV fluid ordered as a bolus will be documented as a Bolus with the amount of fluid administered and the start and end time of the bolus infusion.
- P. IV Fluids for Blood
1. All blood orders must be sent to pharmacy.
  2. A sodium chloride 0.9% 500mL bag will be entered for any patient receiving blood products in compliance with each individual site's Medication Safety Guidelines and Medication Administration Policies and Procedures. For some sites a written order will be required before the pharmacist or pharmacy technician will enter the flush bag into PharmNet. For other sites, the order might be automatically entered based on existing flush protocols without a separate written order. Sodium Chloride 0.9% 500mL bags will be stocked as either floor stock or in unit-based cabinets across the system
  3. Blood Administration is documented on the appropriate paper forms not in eMAR.
- Q. IV Flush Solutions
1. A Sodium Chloride (Saline Flush) will be entered for any patient with an IV line in compliance with each individual site's Medication Safety Guidelines and Medication Administration Policies and Procedures. For some sites a written order will be required before the pharmacist or pharmacy technician will enter the flush solution into PharmNet. For other sites, the order might be automatically entered based on existing flush protocols without a separate written order. An example would be Sodium chloride (Saline Flush 0.9%-Preservative Free) 2 ml IV, Bid Q 12.
- R. Medications with Documentation Requirements
1. Documentation of the administration of medications that require follow-up assessment/documentation will generate a reminder that will populate the eMAR/patient care task list/medication task list. (Pain medications are an example).
  2. The reminder will be linked to an online form. When the online form is completed the reminder will be satisfied and disappear from the task lists and eMAR, leaving evidence of documentation on the eMAR at the time it was completed.
  3. The completed form will also be retrievable from the "Forms" tab in the computer.

- S. Printing a Transfer Medication Reconciliation Checklist
  1. A Transfer Medication Reconciliation Checklist is printed from the computer when the patient has a change in acuity of care. (Examples include general nursing unit to ICU, ICU to general nursing unit, surgery to general nursing unit) in accordance with site-specific policies.
  2. The Transfer Medication Reconciliation Checklist, which lists all current medications, is placed in the patient's chart under physician orders.
  3. The physician may use this Medication Reconciliation Checklist as an order sheet to indicate medications to be continued and discontinued on transfer or after surgery by placing checkmarks in the appropriate columns and signing as any other order.
  4. A signed copy of the Transfer Medication Reconciliation Checklist is delivered to pharmacy. Orders are processed as for new medications.
- T. PCA
  1. PCA Continuous infusions will be processed by pharmacy as a Continuous Infusion.
  2. PCA's administered by the Clinical Staff will be documented in the computer in two places:
    - a. On the eMAR: Chart start of a PCA using the Begin Bag function on the Continuous Medication Charting window. The basal rate will be a required field. If there is NO basal rate it will be necessary to document 0. Do not chart total cleared on the eMAR.
      - i. When documenting a new syringe (works like a new bag), documentation will resemble documentation of hanging a new bag of IV fluids.
    - b. On the Pain Management Form: Chart the infusion type, medication and concentration, PCA Dose, Lock Out Interval and Basal Dose if ordered. At the end of the shift, chart the attempts this shift and total cleared.
- U. Immunizations
  1. Immunizations administered by the nurse will be documented in the computer in two places:
    - a. On the eMAR to indicate dose administered. Documenting immunizations on the eMAR will put the immunization on the "Immunization Tab". Click on the immunization tab and the "as of button" to refresh the screen.
    - b. On the Immunization tab in the computer to complete the manufacturer, lot number and expiration date. Click on the immunization to highlight, right mouse and modify to complete the manufacturer, lot number and expiration date
- V. Reviewing Administration Details
  1. Administered medications appear in the associated line directly below the medication charting line.
  2. The name of the medication is found on the left under the medication label. The dose and route appear in the date/time column of administration.
  3. Administration details are revealed with a right mouse click on the route/dose administered. "View details" will open a window with administration details. "Action list" will list the personnel involved in the verification and administration of that medication.

4. The proxy personnel column of the “Action list” indicates the name of the individual charting medication administration for another.
- W. Extended Computer Outage
1. Pharmacy will determine the need to call an unscheduled computer downtime based on system performance effects to Medication entry in the computer.
  2. In the event of a scheduled computer outage, Pharmacy will print and distribute downtime MAR’s from the system prior to the scheduled downtime.
  3. In the event of an unscheduled computer outage, Pharmacy will print and distribute downtime MAR’s from the backup system that is refreshed every four hours.
  4. Based upon the last refresh, the downtime MAR will include information regarding the last dose documented in the computer system before the outage occurred.
  5. The Clinical Staff will check the downtime MAR against the read-only online eMAR available in Cerner Secondary Access for any medications that were entered into the computer since the last time a “refresh” occurred.
  6. The Clinical Staff will manually transcribe any medications ordered after the last backup “refresh” on the downtime MAR.
  7. The Clinical Staff will manually transcribe any NEW medications ordered during the downtime on the downtime MAR.
  8. Should manual transcription become necessary, it will include the date, the medication, the dose, the route, and the frequency and time scheduled for administration. It will also include the initials of the Clinical Staff verifying the order.
  9. Documentation of medications given during the outage will be documented on the downtime MAR.
  10. The downtime MAR will be placed in the chart under the medication tab if there has been documentation against it.
  11. Medications administered and documented on the downtime MAR will be documented in the computer (by proxy personnel if necessary) when the system comes back up.
    - a. If a patient is transferred during the outage, the downtime MAR goes with the patient. When the System is available, the receiving Clinical Staff will document in the computer (by proxy) the medications that were documented on the downtime MAR and file the downtime MAR in the chart.
    - b. If a patient is discharged during the outage, when the system is again available, the Clinical Staff will document the medications that were documented on the downtime MAR in the computer (by proxy if needed) and file the downtime MAR in the chart.
    - c. The downtime MAR will be discarded after all medications are documented on the eMAR.