

# Medication Orders and Prescriptions

A PRESCRIBER'S primary way of communicating their desired patient treatment program to the pharmacist is through the prescription or medication order. Prescriptions are used in the outpatient setting and medication orders are used in the inpatient setting. Both prescriptions and medication orders are legal orders that can be used to prescribe medications and medical devices for patients. Both need to be checked for accuracy during the interpretation process as well as during the filling process.



## Objective:



Differentiate between medication orders and prescriptions.

## Key Terms:



biological agents  
chemotherapy  
community pharmacy  
generic medication

institutional pharmacy  
medication order  
ophthalmic  
otic

parenteral  
prescription  
PRN

## Analyzing Prescriptions and Medication Orders

### DIFFERENTIATE BETWEEN MEDICATION ORDERS AND PRESCRIPTIONS

In the **community pharmacy**, a pharmacy that deals directly with people in the local area, medications are dispensed directly to the patient after a valid **prescription**, a physician's order

for the preparation and administration of a drug or device for a patient, is presented to the pharmacy. Community pharmacies are commonly referred to as retail pharmacies. In the **institutional pharmacy**, or hospital setting, **medication orders**, written directions by a prescribing practitioner for a specific medication to be administered to an individual, are used in place of prescriptions.

Prescriptions are used in the outpatient setting and medication orders are used in the inpatient setting. Prescription medications are directly dispensed to the patient. The patient takes the medication home with them and follows the directions on the medicine label. Medication orders are processed differently in the hospital than in the community pharmacy. When a physician visits a patient in the health care facility, the order is written on a physician's order sheet and is placed in the patient's chart. The medication orders are filled and delivered to the nursing unit where nursing personnel dispense the medications to the patient, in a hospital, nursing home, or other health care facility.

Most medications dispensed in the typical community pharmacy are oral medications or pre-packaged specialty medications, such as inhaled drugs for the lungs, **ophthalmic**, for the eye, **otic**, for the ear, and topical for the skin. The institutional pharmacy dispenses not only these types of medication but also **parenteral**, injecting directly into the body, **biological agents**, a substance that is made from a living organism or its products, and potentially hazardous **chemotherapy**, anti cancer, medications.

Prescriptions are for a definable amount of medication, whereas medication orders will continue to be dispensed until the order is changed or the patient is discharged from the health care facility.

Prescription and medication orders can be handwritten, typed, verbal or entered into the computer system program and submitted to the pharmacy by electronic means. Computerized physician order entry (CPOE) is a new technology that allows the medication order to be sent electronically to the pharmacy using a computer or a mobile device. Medication orders fall into four categories:

- ◆ stat order: a stat order needs to be filled within minutes. A stat order is generally used on an emergency basis and the medication needs to be administered as soon as possible but only one time.
- ◆ single order: the single order means to administer the medication at a certain time but only one time.
- ◆ standing order: the standing order is a prewritten medication order indicating that a medication is to be given for a specified number of doses.
- ◆ **PRN**: PRN indicates an “as needed” medication. This allows a medical professional to judge when a medication should be administered based on the patient's need and when it can be safely administered.

In the institutional setting the pharmacy more freely substitutes a **generic medication**, copies of brand name drugs that have the same dosage, use, effects, and safety as the original drug, to appropriately fill the medication order. Brand name drugs are only dispensed if no generic drug is available. In the community pharmacy setting the pharmacist must interpret

how the prescription was written by the health care provider. The prescriber can authorize a generic drug by writing or checking a box that says “substitution permitted.” If the prescriber writes or checks a box that says “dispense as written” (DAW), a generic equivalent is not permitted.

## Preparation of Medication Order

- ◆ Identify the required elements of a medication order.
  - Date and time the order was written
  - Medication name, dosage strength, dosage form, amount
  - Route, frequency, and duration of administration
  - Indications for use
  - Signature of practitioner
- ◆ Medication order is entered into the patient’s medication profile.
- ◆ Medication is supplied to the nursing unit by various routes depending on the facilities system.
  - Unit dose system medications are prepackaged for a single administration. Each patient on the nursing unit has a designated removable drawer of medication that is delivered to the unit in a moveable cart called the unit dose cart. Commonly a 24 hour supply is provided. The pharmacy technician fills the necessary medications into each patient drawer each morning.
  - Automated dispensing systems electronically controls and tracks the dispensing of unit doses for each patient based on the patient’s individual medication profile. The dispensing machines allow medicines to be stored on the unit and to be more conveniently accessed by the staff. These dispensing systems require continual filling and updating which are the duties of the pharmacy technicians.
- ◆ Medication is recorded on the patient’s medication administration record (MAR).

## Preparation of Prescription Medications

- ◆ Identify the required elements of a prescription.
  - Patient name and date of birth
  - Date the prescription was written



**FIGURE 1.** The process of prescribing and filling prescriptions and medication orders is a complex one. Good communication is crucial to good health care.

- Prescriber name, address, telephone number
- Medication name, dosage strength, dosage form, amount
- Route of administration
- Instructions to the pharmacist in dispensing the medication
- Directions for the patient to follow
- Signature of prescriber
- ◆ Updating the patient profile.
- ◆ Review and translation of the prescription.
- ◆ Enter prescription into patient profile.
- ◆ Calculating quantities of medication.
- ◆ Counting out proper quantity of medication.
- ◆ Selecting appropriate container.
- ◆ Placing label on container.
- ◆ Pharmacist completes final check.
- ◆ Placed in bin for patient pick up.



**FIGURE 2.** Half of the prescriptions taken in the U.S. each year are used improperly, and 96 percent of patients don't ask any questions about how to use their medications. Ask about your medication when picking it up, your pharmacist has spent more time studying drugs than even your doctor.

## DESCRIBE THE COMPONENTS OF A MEDICATION ADMINISTRATION RECORD

When a nurse administers any medication it is recorded in the patient's medical record on a form called a medication administration record (MAR). The report serves as a legal record of all of the medications that have been administered to a patient. The MAR becomes part of a patient's permanent medical record. The medications listed on the MAR are transcribed from the physician's medication order. Transcribing medications onto a MAR may be completed by the pharmacy or sometimes by the patient's nurse.

### *Medication Administration Components*

The MAR provides uniform guidelines for charting medications and treatments. The formats and information on the MAR may vary somewhat from facility to facility but generally consists of a column which lists the medication, a start and stop date, time and date medication is taken, and the initials of the person administering the medication. Each record is patient specific and should contain at least the following information:

- ◆ Patient's name, date of birth, hospital identification number
- ◆ Name of prescribing physician
- ◆ Allergies



## FURTHER EXPLORATION...

### ONLINE CONNECTION:

#### Safe Medication Administration: How Many Rights Are There?

Holding each person involved in the medication administration process accountable for their part in the process can help to prevent errors. One of the recommendations to reduce medication errors and harm is to use the five rights of medication administration. The medical professionals who administer medications must ensure that they are giving the right medications to the right patients using the right method at the right time and in the right dose. Read the article “Safe Medication Administration: How Many Rights Are There?” at the web site <https://www.rn.com/nursing-news/safe-medication-administration/>. Do you think that each of the rights is equally important? Experts keep adding more rights to the list. Do you think that more rights can decrease the number of medication errors? Reflect upon how a medication administration record can help to ensure the five rights are correctly verified.

- ◆ Patient’s general diagnosis
- ◆ Name and dosage form of all medications
- ◆ Dose or quantity to be taken
- ◆ Frequency or times of administration
- ◆ Route of administration
- ◆ Date and time given
- ◆ Medication order number
- ◆ Any special instructions, directions, or precautions

A separate listing in the MAR is kept for PRN, or as needed medications. The conditions for which the medication may be given and the maximum or stop dosage must be included on the MAR.

The MAR must be completed and initialed immediately after the medication is administered by the nurse. Each MAR has a section that contains the full signature and title of each individual who initials the MAR.

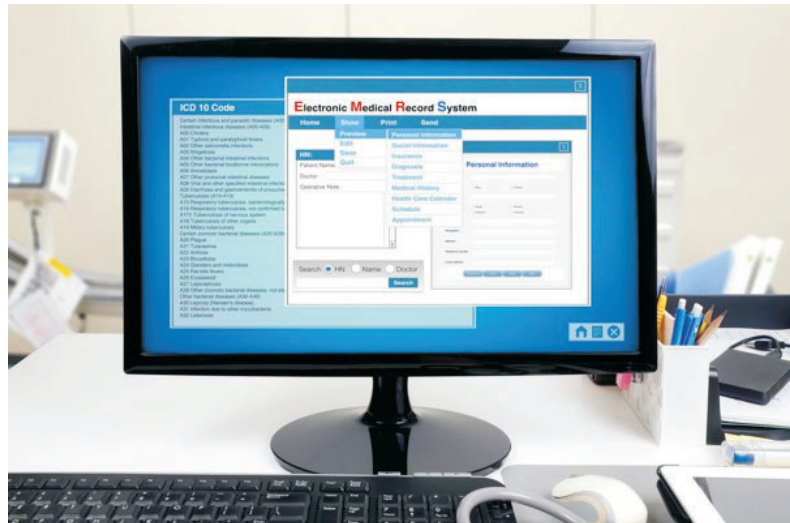
Never erase or use any kind of liquid eraser on a MAR. If an error is made you must draw a single line through the error then initial and date it.

### Technology

Technology has been developed to help nurses document the administration of medications accurately and quickly. An electronic medication administration record (eMAR) documents the administration time of each drug to each patient, often using bar code technology. The medication orders are entered into handheld computer devices by the physician at the patient’s bedside. Patients wear wristbands with bar codes that identify them and link them to their cor-



responding eMAR. Once a physician inputs the order, it is electronically transmitted to the hospital pharmacy. The order is filled in the pharmacy and then sent to the patient care unit. A handheld bar code reader registers each medication, and the software verifies the correct medication was ordered, administered on time, measured in the correct dosage, and documents the actual administration of the medication.



**FIGURE 3.** The medical record is an important tool that serves as a basis for planning care, communicating between medical providers, and providing documentation of patient treatment.

## Summary:



A community pharmacy deals directly with patients in the local area. The patient presents a prescription to the pharmacy and once it is filled medications are dispensed directly to the patient. The patient takes the medication home with them and follows the directions on the medicine label. In the institutional pharmacy a medication order is placed in the patient's medical chart. The medication orders are filled and delivered to the nursing unit where nursing personnel dispense the medications to the patient, in a hospital, nursing home, or other health care facility. When a nurse administers any medication it is recorded in the patient's medical record on a form called a medication administration record (MAR). The report serves as a legal record of all of the medications that have been administered to a patient.

## Checking Your Knowledge:



1. Explain how medication is dispensed in the community pharmacy.
2. Explain how medication is dispensed in the institutional pharmacy.
3. Describe the four types of medication orders.
4. Describe the steps involved in preparing a medication order.
5. Describe the steps involved in preparing a prescription order.
6. Describe the components of a medication administration record and how to document information on it.

## Expanding Your Knowledge:

---



Computerized Physician Order Entry (CPOE) is a process by which physicians can place medication orders through an electronic system directly to the pharmacy. Use the internet to find information related to these systems. Describe the advantages and disadvantages of these systems as they relate to safe medication administration.

## Web Links:

---



### **Medication Orders**

<https://www.dhhs.nh.gov/dcbcs/bds/nurses/documents/sectionIII.pdf>

### **Prescription Writing 101**

<https://medicalschoollhq.net/prescription-writing-101/>

### **Recommendations to Enhance Accuracy of Prescription/Medication Order Writing**

<https://www.nccmerp.org/recommendations-enhance-accuracy-prescription-writing>