

AL-Mustaqbal university college
Pharmacy department

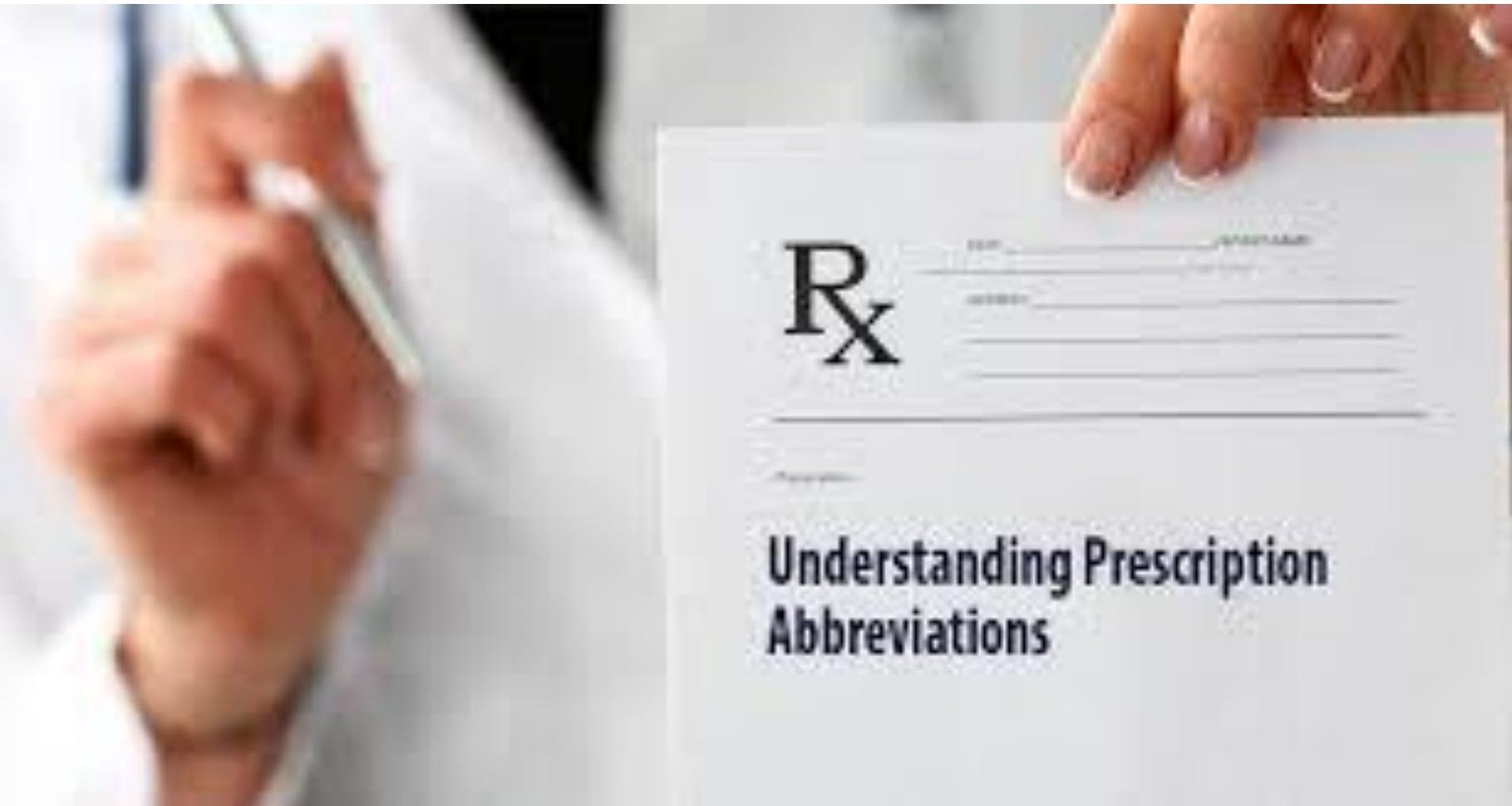


Principles of pharmacy practice

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Interpretation of prescription or medication orders

lec3



Objectives

Upon successful completion of this chapter, the student will be able to:

- Demonstrate an understanding of the format and components of a typical prescription.
- Demonstrate an understanding of the format and components of a typical institutional medication order.

prescription is an order for medication issued by a physician, dentist, or other properly licensed medical practitioner. A prescription designates a specific medication and dosage to be prepared by a pharmacist and administered to a particular patient. A prescription is usually written on preprinted forms containing the traditional symbol \mathcal{R}_x (meaning “**recipe,**” “take thou,” or “you take”), name, address, telephone number, and other related information regarding the physician or other prescriber. In addition, blank spaces are used by the prescriber to provide information about the patient, the medication desired, and the directions for use.



A **prescription** written by a veterinarian generally includes the **animal species** and/ or **pet's name** and the **name of the owner**. A written prescription may be presented at the pharmacy by the patient or caregiver, or it may be transmitted from the prescriber by telephone or by other electronic means. In the latter instances, the pharmacist immediately reduces the order to a properly written entry.

In hospitals and other institutions, the forms are somewhat different and are referred to as **medication orders** i:e **medication orders sheet** A prescription or medication order for an infant, child, or an elderly person may also include the age, weight, and/or body surface area (BSA) of the patient .

(1)

John M. Brown, M.D.
100 Main Street
Libertyville, Maryland
Phone 123-4567

(2)

Name Mary Smith Date Jan 9, 20yy

(3)

Address 123 Broad Street

(4)

R

(5)

Lipitor 10 mg

(6)

Tab No. 30

(7)

Sig: tab i every day

(8)

Refill 6 times

Label: Yes No

Generic if available: Yes No

JM Brown, M.D.

(1)

DEA No. 1234563

State License No. 65432

CITY HOSPITAL
Athens, GA 30600

PATIENT NAME: Thompson, Linda
AGE/SEX: 35 Female
PHYSICIAN: J. Hardmer
HOSP:NO: 900612345
SERVICE: Medicine
ROOM: 220 East

PHYSICIAN'S ORDER

DATE	TIME	ORDERS
02/01/yy	1200	1. Propranolol 40 mg po QID
		2. Furosemide 20 mg po q AM
		3. Flurazepam 30 mg at HS prn sleep
		4. D-5-W + 20 mEq KCL/L at 84 mL/hr
		Hardmer, MD

Unless "No substitution permitted" is clearly written after the order, a generic or therapeutic equivalent drug may be dispensed according to the Formulary policies of this hospital.

This information is sometimes necessary in calculating the appropriate medication dosage. It is important to recognize two broad categories of prescriptions:

(1) those written for a single component or prefabricated product and not requiring compounding or admixture by the pharmacist, and
(2) those written for more than a single component and requiring compounding. A prescription may include the chemical or nonproprietary (generic) name of the substance or the manufacturer's brand or trademark name

Prescriptions requiring compounding contain the quantities of each ingredient required. Medications are prepared into various types of dosage forms (e.g., tablets, syrups, injections) and drug delivery systems (e.g., transdermal patches) to ensure that the medication is administered accurately and appropriately.

Prescriptions and medication order accuracy

It is the responsibility of the pharmacist to ensure that each prescription and medication order received is correct in its form and content; is appropriate for the patient being treated; and is subsequently filled, labeled, dispensed, and administered accurately. In essence, each medication should be:

- therapeutically appropriate for the patient;
- prescribed at the correct dose;
- dispensed in the correct strength and dosage form;
- correctly labeled with complete instructions for the patient or caregiver; and
- for the patient in a hospital or other health care facility, each medication must be administered to the correct patient, at the correct time, and by the correct rate and route of administration

errors and omissions

To ensure such accuracy, the pharmacist is obliged to review each prescription and medication order in a step-by-step manner to detect errors of omission and commission. This is termed a search for **errors and omissions**.

A review of the completeness and correctness of a prescription or medication order is an important initial step in the process of ensuring accuracy. It is important to note that other subsequent and related parameters to ensure the accuracy of medication use—such as the application of pharmacotherapeutics ,disease state management ,and the legal and regulatory aspects of drugs and prescribing authority

Among the items that the pharmacist should check for the correct reading and interpretation of a prescription or medication order are:

- prescriber information, including address and telephone number, Drug Enforcement Administration (DEA) number (for authority to prescribe schedule drugs including narcotics), state license number and/or the National Provider Identifier (NPI), an identification number for participating health care providers, and signature;
- date of the order and its currency to the request for filling;
- patient information, including dose-relevant information, such as the age and/or weight of the patient if the dose of the drug is so based

- drug prescribed, including dose, preparation strength, dosage form, and quantity;
- clarity of any abbreviations, symbols, and/or units of measure;
- clarity and completeness of directions for use by the patient or caregiver;
- refill and/or generic substitution authorization;
- need for special labeling, such as expiration date, conditions for storage, and foods and/or other medications not to take concomitantly; and
- a listing of the ingredients and quantities for orders to be compounded; calculations performed should be checked and double-checked, as should the positive identification of all ingredients used along with their measurements

Once the prescription or medication order is filled and the label prepared, before dispensing, the pharmacist should make certain of the following:

- ❖ The filled prescription or medication order contains the correct drug, strength, dosage form , and quantity. Placing a medication's indication (use) on the prescription label has been shown to be of benefit in understanding of the use of their medication for some patients, particularly older patients and those taking multiple medications. The bar-coding of pharmaceutical products used in hospital settings is required by the federal Food and Drug Administration (FDA) as an added protection to ensure accurate product dispensing and administration
- ❖ The pharmacy-imprinted serial number on the label matches that on the order.

- ❑ The label has the name of the correct patient and physician; the correct drug name, quantity, and strength; the name or initials of the pharmacist who filled the order; and the number of refills remaining. Additional label information and/or auxiliary labels may be required according to good pharmacy practice and by federal and state law depending on the drug dispensed.



Example:

Refer to the prescription shown in Figure below to identify any errors and/or omissions in the following prescription label

John M. Brown, M.D.
100 Main Street
Libertyville, Maryland
Phone 123-4567

Name Brad Smith Date Jan 9, 20yy

Address 123 Broad Street

RX 1234576

R

Amoxicillin 250 mg/5 mL
Disp. 100 mL
Sig: two tsp. every 12 hours
until gone

Refill 0 times
Label: Yes No
Generic if available: Yes No

JM Brown, M.D.
DEA No. CB1234563
State License No. 65432

Main Street Pharmacy
150 Main Street
Libertyville, Maryland
Phone 456-1432

Rx 1234576
Brad Smith

Jan 10, 20yy
Dr. J. M. Brown

Take 2 teaspoonfuls every 12 hours.

Ampicillin 250 mg/5 mL
Refills: 0

100 mL
Pharmacist: AB

Error: Drug name incorrect.

Omission: Directions incomplete.

Note: There would be a serious question of whether the patient received the correct medication

THANK YOU

FOR ALL YOU DO



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#StayHomeStaySafe
#ProtectOurNHS