Classification of the pharmaceutical products

can be done according to the;

- Structure of the drug
- Application site of the product
- Organs that they are applied
- Formulation type and preparation techniques
- Amount of active ingredient that they contain
- Prescription

Classification of pharmaceutical products

- According to the application site of the product
  - *Internal (oral)*
  - *External*
  - *Parenteral*

Oral use:

Syrups, capsules, tablets, effervescent powders, granules, suspensions etc..

External use:

Eye/ear preparations, creams, semisolids, suppositories, lotions, etc...

Parenteral use:

Injectable preparations, solutions packaged in ampules or vials, serum solutions, dialysis solutions, implants, etc..

Classification of pharmaceutical products

- According to the organs that they are applied
  - *Ophtalmic*
  - *Nasal*
  - *Otic*
  - *Rectal –vaginal*
  - *Transdermal*

- According to the amount of active ingredient that they contain
  - *Adult dose*
  - *Pediatric dose (for children)*

Classification of pharmaceutical products

- According to the formulation type (dosage form) and preparation technique

  - *Solutions*
    (syrups, elixirs etc)

  - *Disperse systems*
    (colloidal preparations, suspensions, emulsions etc)

  - *Semisolid dosage forms*
    (ointments, creams, suppositories, ovules etc)

  - *Solid dosage forms*
    (tablets, granules, powders, capsules etc)

Pharmaceutical products can be prepared in

- Pharmacy
- Hospital pharmacy
- Industry

Thus, pharmaceutical products can also be categorized as:

- Magistral
- Officinal
- Pharmaceutical preparations

Remember that !

Classification can also be done as;

- Human or veterinary products
- Natural, Semisynthetic, Synthetic according to the structure of drug
- Simple or composed pharmaceutical products due to they can contain one or more than one active substance.

What is a prescription?

Prescription is a written, typed or computer generated paper document which is detailing the medicine(s) to be dispensed to the patient and issued by an authorized prescriber (doctor, dentist or veterinary doctor).

- It is a part of the professional relationship among the prescriber, pharmacist and the patient.

- It is the pharmacist responsibility to provide the quality of the medication which the patient needs.

Following information is required in a prescription:

- Prescriber's office information (name, address, telephone number, name of the hospital…)
- Patient information (name, address, age, diagnosis for illness)
- Date

- Rx symbol
- Medication prescribed
- Dispensing directions to the pharmacist
- Directions for patient
- Special labelling and other instructions
- Prescriber's signature and licence number

A prescription involves the following parts:

1- Superscription

R., Rp., Rx.

It is used as an abbreviation of «recipe» which means «take»

2- Inscription

Medication prescribed.

It is the general body of the prescription.
It gives the information about the name of the drug (generic or trade name), its formulation and unit dosage.

3- Subscription

Subscription provides information to the pharmacists about the quantity and dosage form of the drug to be dispensed.

4- Instruction

Sign. / Sig. / S. (Signatura)

It includes the directions written to the patient by the prescriber; contains instruction about the amount of drug, time and frequency of doses to be taken.

KURUMU	Tarih
Hastanın Adı Soyadı	Protokol No.
Kurum Sicil No. Sağlık Kurumunun Adı İstenen Tetkik ve Filmler Teşhis	Dr. Dip.No. Adı Soyadı (Varsa Kaşesi)
GEREKLİ TEDAVİ, İLAÇ , PROTEZ VE İYİLE ŞTİRME ARAÇLARI	
Rx ① Paracetamol ..... 0.8 g Aspirin ..... 0.1 g ② ③ p. 1 cachet No:XX ④S. Günde 3x1 tane tok karnına	
Sağlık Kurumu Mühür, İmza	İlaçları Alanın Adı, Soyadı, İmzası

Electronic prescribing or *e-prescribing* is the electronic transmission of prescription information from the prescriber's computer to a pharmacy computer.

Advantages;

- ✓ Each prescription can be checked electronically
- ✓ The errors can be reduced or eliminated.
- ✓ Information on prescription can be linked with the patient's medical records.
- ✓ Refill request can be expedited.
- ✓ Facilitation of data transfer between prescriber and pharmacist can be provided.

REÇETE (No:2QC)

T.C. Standart Form No : 1.5.101

Hastanın (TC Kimlik No/Pasaport No) Adı Soyadı	Tarih :
	Protokol No
Hastanın Kurumu SSK	Dr. Ankara Keçiören Şenlik Sağlik Ocağı Diploma Tes. No: / ÇKYS Kodu :
Tabibin Kurumu Ankara Keçiören Şenlik Sağlik Ocağı	Aile Hekimi

TANILAR : J02.9 (Akut farenjit, tanımlanmamış)

İLAÇLAR

Rp/

1) LEVOPRONT ŞURUP 6MG/ML 150 ML
Doz: 3x1 Kullanımı : Ağızdan (Oral) D I B(BİR) Süre:1

Examples for Pharmacy Abbreviations

Term	Meaning
Nonrep.	do not repeat
Ad	(complete) to
āā, ȃȃ	of each
q.s.	sufficient
d.t.d. No.IV	give four doses
div.	divide
a.c.	before meals
p.c.	after meals
ft.	let it be made
mist.	mixture
Ung.	ointment
Collyr.	eye lotion

Examples for Pharmacy Abbreviations

Term	Meaning
IM	intramuscular
IV	intravenous
po	by mouth (per oral)
q.i.d.	four times a day
t.i.d.	three times a day
b.i.d.	two times a day
supp	suppository
SR, XR, XL	sustained/extended release
sol	solution
susp	suspension

Examples

Drug	Rx	Label Directions
Diovan® 80 mg tablet	i po q.i.d	Take one tablet by mouth four times daily
Cephalexin 250 mg capsules	ii stat, i po QID x 10 d	Take two capsules by mouth now, then take one capsule four times daily for ten days
Alphagan-P® 0.1% eye drops	i q 8h ou	Instill one drop into each eye every 8 hours
Strettera® 25 mg capsules	i q a.m	Take one capsule by mouth every morning
Enbrel® 50 mg SC injection	i q week	Inject the contents of one syringe, subcutaneously, once weekly

General terminology related with prescription

- Dosage form
- Strength
- Dose
- Dose regimen
- Total daily dose
- Total amount
- Proprietary name
- Generic name

Dosage form

Dosage form is the type of formulated product such as tablet (enteric coated tablet, modified release tablet, buccal tablet etc.), capsule, cream, ointment, eye drop, suppository, patch…

Dosage form must be stated at prescription as the drugs can be found in different dosage forms.

Strength

Strength is the amount of drug in the dosage form.

It can be expressed as,

- Amount of drug/volume for liquid preparations
  (Also some topical preparations and injections)
  e.g. 125 mg/5 mL codein phosphate in a syrup
  400 µg/mL Naloxone HCl injection

- Amount/weight in topical preparations and external liquids …
  e.g. 10 mg/g diclofenac sodium in an emulgel

Strength

- International units for biological materials
  e.g. 100 000 IU Penicillin G in a suspension
- Percentage concentration
  e.g. Chloramphenicol 0.5 % in an eye drop
- Dosage forms consisting individual doses generally expressed as the amount of drug
  e.g. 25 mg, 50 mg, 100 mg diclofenac sodium tablet.

Dose

Amount of drug taken at once.

Dose can be expressed as;
*The weight of drug (500 mg paracetamol)
*Volume of drug solution (5 mL codein syrup)
*Number of dosage forms (1 tablet)

Dose regimen

Number of times the dose must be taken in a period of time
(Frequency of administration)

Examples;
5 mL twice daily
1 injection every 4 weeks
1 tablet three times daily
200 mg three times daily

Total amount

Total amount of medicine supplied to the patients

Example

21 tablets, 30 g ointment, 10 mL eye drop

Proprietary name

Brand name, Trade name

Generic name

Approved name (adopted by WHO)

Example; Amoxycillin, Sulphasalazine