DRUG PRESCRIBING AND DRUG COMPLIANCE
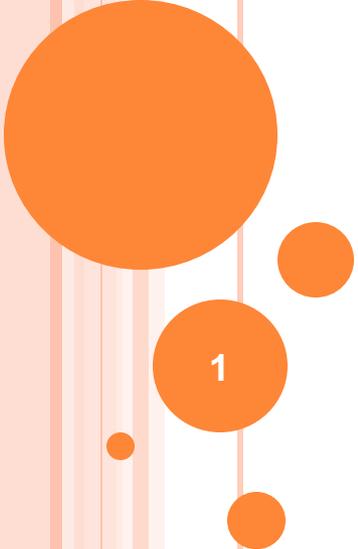
1

CONTENTS

➢ **PURPOSES OF THERAPY**

➢ **RATIONAL USE OF DRUGS**

➢ **DRUG-RELATED PROBLEMS**

➢ **TYPES OF PRESCRIBITION**

➢ **DRUG COMPLIANCE**

PURPOSES OF THERAPY

Therapeutic drug use could be for the following purposes:

1. **Curative:** seeking a cure for an existent disease or medical condition

2. **Symptomatic:** any medical therapy of a disease that only affects its symptoms, not its cause.

3. **Replacement:** Administration of a body substance to compensate for the loss, as from disease or surgery, of a gland or tissue that would normally produce the substance.

4. **Supportive:** is one that does not treat or improve the underlying condition, but instead increases the patient's comfort

5. **Prophylactic or Preventive therapy:** is a therapy that is intended to prevent a medical condition from occurring

6. **Palliation:** focuses on relieving and preventing the suffering of patients by addressing physical, emotional, spiritual and social concerns arising with illness.

RATIONAL USE OF DRUGS

Rational use of drugs: "patients receive medications appropriate to their clinical needs, in doses that meet their own individual requirements, for an adequate period of time, and at the lowest cost to them and their community".

Choice of effective drugs should be based on :

1.Efficacy

2. Cost: affordable by patient and community

3. Chosen from Essential Drugs: These are effective drugs that are commonly used in community, and must always be available

4

BASIS OF RATIONAL DRUG PRESCRIBING

Rational drug prescribing is based on a series of steps:

1. Making a specific diagnosis

2. Consider the pathophysiologic implications of the diagnosis

3. Select the specific therapeutic objective

4. Select a drug of choice: Consider patient criteria (age, other drugs also taken, other diseases, and nature of disease) as well as his clinical presentation

5. Design the appropriate dosing regimen, based on patient pharmacokinetics and if they are altered by his illness

6. Monitor for therapeutic effect(s), patient compliance, and adverse effects

5

DRUG-RELATED PROBLEMS

1. Untreated indication

2. Improper drug selection

3. Sub-therapeutic dosage

4. Over-dosage/toxicity

5. Failure to receive the right drug

6. Adverse drug reactions/events

7. Interactions

8. Drug use without indication

6

TYPES OF PRESCRIPTIONS

These are of two major types:

1. Hospital prescription of drugs: This is written by the treating doctor on the Physician Order Sheet (POS) of the patient hospital chart.

It is preceded by the date and time which is put on upper left hand of chart. The prescription includes the drug(s) and direction of use **i.e. for each drug :** the dose to be given to patient and its route, frequency of administration, and duration of use. This followed by signature of the treating doctor. A typical chart order might be as follows:

04/11/2014

10:30 a.m.

(1) Ampicillin 500 mg IV q6h x 5 days

(2) Paracetamol 0.25 g supp q6h prn temp over 38c

[Signed] Mohammad, MD

2. Office prescription:

This is the physician request to the pharmacist aimed at dispensing drug(s) in proper amount to patient together with directions for effective therapeutic use.

The prescription includes the following parts:

1. Identification :

Doctor : Name, speciality, address, telephone(optional)

Patient : Name , age , address(optional)

Date

2. Superscription : which includes the suffix   Rx :

Recipe (Receive Thou)

3. Inscription (Body of prescription): This includes the drug(s), dose form and its strength in metric units, and directions for proper use by patient

4. Subscription: This includes directions for dispensing the correct amount of drug for the patient according to frequency of use and duration of treatment .

5. Re-fill directions: if needed; any special **warning** to be given to patient regarding drug storage or use, and if there is a need for **child-proof container** for drug(s)

6. Signature of prescribing doctor & his license number: usually at bottom of prescription

➢ **The pharmacist puts a label on each drug container and it includes the followings :**

Drug name and its nature
Directions of its use and storage
Warnings
Expiry date of drug

Dr Name   Academic and professional degree
 Address

_____

Patient name : Ali ahmed   **Date:** 05/11/2014
Age (years): 14   **Address :** Mu'tah

Rx

Panadol tablets (0.5g)
Take one tablet p.c. tid for 4 days
Dispense : 12 tabs

Signature

Re-fill : once   Dr. mohammad
Warning : non

License No. 13456
Childproof container : none

Label on bottle :

    Panadol   .   Analgesic or antipyretic

    - take one tablet 3 times daily after meals for

     4 days

  Expiry date : July 2025

Note : **Trade or proprietary name is used in office prescriptions, while generic name is used in hospital prescriptions**

<u>Some abbreviations,</u> in latin or Greek, **that may be needed in writing directions of drug use in prescriptions :**

ac : ante cibum (before meals)

pc : post cibum (after meals)

bid : twice daily

tid or tds : three times daily

qid : four times daily

prn : when needed

qd : every day   qh : every hour

qhs : every night at bedtime

ss : one half   stat : at once

OD : right eye   OL : left eye   OU : both eyes

Some Measurements that may be used in directions of drug use in prescriptions :

one tea spoonfull = 5 ml

one table spoonfull = 15 ml

one ounce (oz.) = 30 ml

one quart = 1000 ml

one drop = 0.05 ml= 50 ul

one ml = 20 drops

Common errors in prescription writing are due to :

1. Omission of information
2. poor prescription writing
3. inappropriate choice of drug(s)

DRUG COMPLIANCE

Drug Compliance : means the extent to which the patient follows the instructions of proper drug(s) use , as given by his prescribing doctor on the prescription form.

Causes of poor compliance :

1. Lack of patient teaching by his Dr on details of proper drug use or lack of comprehension by patient of these instructions when taught to him

2. Failure of patient to obtain the drug due to problems of cost or handicap

3. Patient forgets to take drug, or loss of drug, or discontinues taking drug prematurely and thus may donate the medication to others

4. Polypharmacy (taking multiple drugs) : due to many diseases esp. in elderly ; this is esp. when multiple doses of each drug is needed daily

5. Frequent doses (> 3 / d) and long duration of treatment (months or years)

6. Age : neonates, infants, children, and elderly

7. Disabling adverse effects occur

Consequences of poor compliance :

 1. Reduced or loss of therapeutic effect , esp. with drugs having short half-life

 2. Recurrence of disease

 3. Withdrawal syndrome occur with some drugs

THANKS

16