pharma sheet (3)

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DATE: 27/9
First 9 minutes the doctor is talking about the first term exam and about the handout and revision from last lectures.

**DRUG PRESCRIBING AND DRUG COMPLIANCE**

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: "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 in numbers and in an affordable price.

Min 16.45

Basis of rational drug prescribing
*Prescription is the language between the pharmacist and the doctor
Rational drug prescribing is based on a series of steps:

First thing there must be a 1- specific diagnosis

2-Conside 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

6-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

1-Untreated indication

2-Improper drug selection

Min 21.45

DRUG-RELATED PROBLEMS

1-Untreated indication

2-Improper drug selection
3-Subtherapeutic dosage
*sub=less
you gave a lesser dosage than needed to make an effect

4-Overdose/toxicity
*over=more
-overdosing leads to toxicity

5-Failure to receive drug
-the drug don’t reach the patient
*sometimes in hospitals they should solute the drug in normal saline but they solute it in glucose so it didn’t reach the patient
-you should be sure the patient took the drugs

6-Adverse drug reactions/events
*sometimes drugs make allergy \diarrhea \color the urine \side effects
-you should find a drug that comforts the patient and the patient should know the side effects to tolerate it

7-Interactions
-some drugs make interaction with other drugs or food
-you should leave a time space between the drugs or drug and meals
-interactions can be between (drug-drug interaction \ drug-food interactions)

8-Drug use without indication
-the patient should only take drugs the doctor prescribes so if something happens the doctor will help

Types of prescriptions:
*there are drugs that need prescription and others doesn’t need

**the drugs that need prescription are either from hospital or office (private clinic\physician (doctor\outside the hospital)) and they are written in different forms

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 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:

14/10/2016 *should be written everyday so if problem or poisoning happens we will know why
11:00 a.m. *prescription should be changed everyday
(1) **Ampicillin** *(scientific name of the drug) 500 mg *(the dose) IV *(pharmaceutical form) q6h *(every 6 hours) x 5 days q=every h=hours

(2) **Aspirin 0.6 g per rectum** *(تحاميل) q6h prn temp over 38c (when the patients temperature is over 38 degree each 6 hours) prn (عند الحاجة)

Signature

*each patient have a file

2. **Office prescription:** min 35.30

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, specialty, address, telephone *(optional) (so the pharmacist can contact with the doctor if needed)

   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

*hospitals only write the scientific name (trade\market names are forbidden)

*office prescriptions can write trade\market name *market names have small ® near the name

Dr Name      Academic and professional degree                       Address
Telephone No.

Patient name : .............................. Date: .............................
Age (years):   Address :............. Dignosis: .............
Rx :

*وصف

Panadol **(market\trade name of the drug)  tb *(tablet)  500mg (dose)
1x3 x4 p.c ** (one tablet x 3 times a day x for 4 days) (after the meal) *(if the days are not written that means until the quantity finishes)

كمية الجرعة*عدد المرات باليوم*عدد الايام

Panadol tablets (0.5 g )

Take one tablet  p.c. tid for 4 days  *tid=3 times a day  * better to write each 8 hours instead of 3 time a day\each 12 hours instead of 2 two times and so on)

Signature
Re-fill: once
Warning: non License No.
Childproof container: none

Expiry date: July 2016

"اهم اشي ما اولي اشي ينظر الى عند اعطاء الدواء او شراء دواء هو تاريخ الانتهاء"
Note: Trade or proprietary name is used in office prescriptions, while generic (scientific) name is used in hospital prescriptions

*first thing you look at when search for a drug is the scientific name

Some abbreviations, 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

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
- one ml = 20 drops

Common errors in prescription writing are due to:

1. Omission of information

Common errors in prescription writing are due to:

- المريض قد يفهم طريقة إعطاء الدواء أو كمية الجرعة خاطئًا فلا تتم نقدًا أكثر
- مثل نطق أنه البودرة لازم تحليها بماء

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Common errors in prescription writing are due to:

1. Omission of information
2. Poor prescription writing
- ضعف الكتابة في النص الخط

3. Inappropriate choice of drug(s)
- وصف دواء غير مناسب للمرضى من حيث العمر-حامل او لا و مثل هيك

**Drug Compliance**
- تعني أنه المريض يتجاوز مع الدكتور باخذ الدواء

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.
- يعني مثلا إذا تحدد له كل 8 ساعات لازم يلتزم

**Causes of poor compliance:**

1. Lack of patient teaching by his Dr on details of proper drug use or lack of understanding by patient of these instructions when taught to him
- عدم مكانتية المريض شراء او توزع الدواء

2. Failure of patient to obtain the drug due to problems of cost or handicap
- عدم امكانية المريض شراء او توزع الدواء

3. Patient forgets to take drug, or loss of drug, or discontinues taking drug prematurely and thus may donate the medication to others
- كلما كان الجرعات أكثر بنسي أكثر
- مثلا لو المريض بنسي كثير بوصفه دواء 1000 مغ مرتين باليوم، أو جهل المريض حيث يمكن بعد تحسسه من أول جرعة يبطل يكل الدواء لكن في الحقيقة المريض يستلم و يكتسب مناعة ضد الدواء إذا ما التزم و سوف يحتاج الدواء أقوى
- مثال من الدكتوره شخص معه نقرص بطل يوخد الدوا لانه زهق منه و المشكلة انه راح يختفوا من عنده المفاصل لانه ما باخد الدوا

4. Polypharmacy (taking multiple drugs): due to many diseases esp. in elderly; this is esp. when multiple doses of each drug is needed daily
- كلما زادت الامراض يتزيد الخربطة في الأدوية

5. Frequent doses (> 3 / d) and long duration of treatment (months or years)
- الأهل مسؤول عن اعطاء الدواء للطفل وحتى كبار السن

6. Age: neonates, infants, children, and elderly
- الأهل مسؤول عن أعطاء الدواء للطفل وحتى كبار السن

7. Disabling adverse effects occur
- الدواء قد يكون سببا لاضطرابات صحية 입ور طفيفة و أخرى المريض لا يحب

**Consequences of poor compliance:**

1. Reduced or loss of therapeutic effect, esp. with drugs having short half-life
- half-life: is the time needed to lose its half concentration
2. *drugs with short half-life like lithium and psychoactive-drugs and hemoxin must be taken on time so its effect will work and its concentration must stay constant*

2. **Recurrence of disease**

- If you stop taking the drug, the disease\'s microorganisms may return and become immune to this drug.

3. **Withdrawal syndrome occur with some drugs**

- Some drugs (like hydrolase group) if you stop taking them suddenly the disease may become worse and the patient may die.