# Pharmacy as a healthcare unit

Pharmaceutical Propaedaeutics

Institute of Pharmaceutical Technology and Biopharmacy

## Medicines

Medicines are the most common healthcare intervention, but:

• 30-50% not taken as intended

## Medicines



# Use of Community Pharmacies

- Adults in England visit on average 14 times a year
- Around 1 in 10 get health advice
- Majority (>75%) use same pharmacy all the time

# Medical healthcare personnel

- Medical personal involves:
  - Physicians
  - Pharmacists
  - Assistants / Technicians
  - Nurses



- The connection between them occurs in
  - Hospitals
    - In hospital pharmacies
    - In clinical departments
  - Community pharmacies

## 1240 C.E.

 Pharmacy was separated from Medicine. Frederick II of Hohenstaufen, who was Emperor of Germany as well as King of Sicily, was a living link between Oriental and Occidental worlds. At his palace in Palermo, he presented subject Pharmacists with the first European edict completely separating their responsibilities from those of Medicine, and prescribing regulations for their professional practice.

### **Famous Pharmacists**

- Alexander Fleming (Penicillin)
- Friedrich Serturner (Morphine)
- John Pemberton (Coca-Cola)
- Caleb Davis Bradham (Pepsi)

# Medical healthcare professional

- What are the roles of health care professionals?
- Physician (GP):
  - Promoting, maintaining or restoring human health
    - Thorough study, diagnosis, treatment of diseases, injury , physical or mental impairment

### • Pharmacist:

- Focusing on safe and effective medical use
- Compounding medication and dispensing
- Being an integrated member of health care team work





# Medical healthcare personnel

- What are the roles of health care professionals?
- Pharmacy assistant / technician:
  - Assisting and helping pharmacist's work
    - E.g.: filling substances into stock containers, storage, supervising expiry dates, dealing with administration records,
  - Specialist pharmacy assistant can dispense medicines
- Pharmaceutical technician
  - Can work in the pharmaceutical industry
    - Assists the work of chemical engineers and pharmacists in the industry. Maintains cleanliness, keeps records, runs experiments...

## Medical healthcare personnel

#### • Nurses

- Can work in hospitals or outpatient facilities

 Providing hands-on care to patients by administering medications, observing and monitoring, recording patients' conditions, and communicating with doctors



#### Competencies of the member of the healthcare system



#### Ethically codex patient relationship

The following questions (regarding administration of medicine) should be clarified :

- who will apply the medicine?
- what are the symptoms?
- how long does the patient have the symptoms, have he had anything against them?
- does the patient take any other medicines or products simultaneously,
- does he know about any drug allergy?

Pharmacist can only recommend medicine considering patient's condition and interest, which are OTC medicines.

#### **Ethically codex**

#### contact with other staff, especially physicians (GP)

- Medical decisions cannot be changed unless it causes unsafe situations
- Give information about the disease discreetly
- Do not override the diagnosis and treatment, but confirm with helping words
- Get the correction of prescription done discreetly

### How to create a good contact?

#### How to communicate with a physician?

- highlighting the **bridge** role **between pharmacist and physicians**
- having sufficient and self-confident knowledge to be able to communicate in professional language
- giving specialized information, availability, decision
- use of professional terms

#### **Problematic cases:**

- aggressiveness
- helpless
- chatty
- short spoken

# **Types of Medication Errors**

- Prescription transcription errors
  - Illegible orders
  - Missing or misplaced zeros and decimal points
  - Use of unsafe abbreviations
  - Unintended drug ordered based on variety of drug



# **Types of Medication Errors**

- Dispensing errors
  - Look alike/sound alike medications
  - Incorrect preparation
  - Accessibility as floor stock
  - Nonstandard compounded IV solutions and infusion rates

```
Drug Name: HUMULIN R 500 UNIT/ML SOLUTION
Drug NDC: 00002850101 AVAA
Strength: 500 / 00
Qty: 0090 Days Supply: 0090
Directions: ASDIR , DISPENSE NINETY DAYS SUPPLY----USE 50
UNITS DAILY
Additional Notes:
Refuls: 0003
```



Wall system with shop windows for exposure products





### ROWA – automatic dispenser



### ROWA – automatic dispenser



