MIRACLE
Academy

قال تعالى (يَرْفَعِ اللَّهُ الَّذِينَ آمَنُوا مِنكُمْ وَالَّذِينَ أُوتُوا الْعِلْمَ دَرَجَاتٍ)

تفريغ OTC
زميلتكم لجين أبو خرمة

لجان الدُّفعات

Nonprescription drug ==labeling==

- The law requires ==all over the counter drug labels to have information== in a standard format designed ==to give== the ==user easy-to-find== ==information==.

Drug Facts

Active ingredients/Purposes

☐ Make sure the *Active Ingredients* aren't the same as those in another medicine already being used.

☐ If the medicine contains more than one *Active Ingredient*, read the *Purposes* of each active ingredient to make sure all of the active ingredients are needed for the problem(s) or symptom(s) to be treated.

Uses

☐ Find medicine that **treats only** the problem(s) or symptom(s) to be treated.

Warnings

☐ Is there any reason this medicine shouldn't be used?

☐ Is there any reason to talk to a doctor or pharmacist before using this medicine?

Directions

☐ Find the correct dose on the package.

☐ Make sure liquid medicine comes with a measuring tool (such as dosing or measuring cup). If not, ask for one at the pharmacy. Spoons made for eating and cooking may give the wrong dose and **shouldn't be used**.

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* Labeling include :-

① active & inactive ingredient

② adverse effect

③ Pregnancy & lactation

④ Precotions

⑤ Contraindication

⑥ direction & indication of use

⑦ storage condition

⑧ warning

They read the label..NOT !

٩٠-٩٥٪ بيقرأ الليبل ولكن المشكلة ؟

- 90% to 95% of consumers read the Drug Facts label. However,
  - most read the label selectively ١ بركز على معلومة معينة ﺣ الأغلب بقرأ بشكل انتقائي
  - ٢ often pay insufficient attention to the active ingredients and the safety information. عشان الحساسية ﺣ لا يهتم بمكونات الدواء ومعلومات السلامة
  - ٣ Even if patients read the label, they may not comprehend it. حتى لو قرؤوه ممكن ما يفهموا بسبب مشاكل في اللغة
- 50% of respondents who reported taking an OTC pain reliever in 2009 were not concerned about potential side effects.
- Only 16% of consumers read the whole label !

Nonprescription drug labeling

- However, the likelihood of inappropriate nonprescription drug use resulting from misreading of product labels increases when patients have limited reading skills or language barrier.

Role:-

دور بارز

- Pharmacists can take prominent role in ensuring the safe use of nonprescription drugs.

The ==benefits== of over-the-counter availability

1. ==Direct, rapid access== to effective medicines

2. ==Wide availability==

بوفر على المريض وقت وجهد وتكلفة

3. ==Decreased health care system utilization== (fewer physician visits, lower health care system costs)

السماح للأفراد بالسيطرة على صحتهم

4. Allowing ==individuals to be in charge of their own health==.

5. OTC drugs are ==cheaper==

Risks associated with OTC use

التشخيص الذاتي الخاطئ أو المتأخر

1. • Incorrect self-diagnosis, delaying diagnosis and treatment of serious illnesses (delay in seeking advice from a health care professional)

2. • Increased risk of drug-drug interactions.

3. • Increased risk of adverse events when not used appropriately.

4. • Potential for misuse and abuse

لا مثل أدوية القحة

Examples of drug abuse : **cough relievers (Codeine) & Cold medicines**

- 5% of teens have abused cough medicines in 2009, they look for Codeine ..

- Pseudoephedrine is commonly found in OTC cold drugs, It is abused by sport players.

لأنه منشّطا يا

CNS stimulant

ولكن ممكن يرفع الضغط !

Drug interactions

- The risk for drug interactions increases as consumers use more nonprescription medications.

- In addition, diet and lifestyle can affect medications' ability to work in the body.

- Certain food, beverages (grapefruit juice), alcohol, caffeine and even cigarette smoking can interact with medications.

ↄRisk of toxicity (hepatic enzyme inhibitor)

- To avoid drug interactions, patients should consult pharmacists when first selecting nonprescription medications.

لازم أنا كصيدلاني أقدم مشورة مناسبة للمرضين

فبسأله شو عنده حساسية ، أمراضه ، شو بياخد أدوية
وأحذره من drug-drug ، side effect
drug- food
interactions

Drug–Food/Beverage Interaction

OTC Drug	Food/Beverage	Potential Adverse Effect
Acetaminophen } both ↑bleeding	Garlic	Delayed acetaminophen absorption
Aspirin	Garlic	Increased risk of bleeding
Calcium	Oxalic acid foods (spinach, rhubarb); phytic acid foods (bran/whole-grain cereal)	Altered calcium absorption
Zinc	Caffeine; dairy products (milk)	Decreased zinc absorption

or any Calcium supplement
↓
because Zinc, calcium→competition

Drug–Disease Interactions

OTC Drug	Condition	Mechanism
Aspirin	Hyperuricemia → Gout attack	Decreased renal excretion of uric acid
Doxylamine succinate, phenylephrine HCl	Glaucoma	Obstructed aqueous outflow
Naproxen, ketoprofen NSAIDs	Peptic ulcer disease , asthma	Altered gastric mucosal barrier
Pheniramine maleate, naphazoline HCl, nicotine	Hypertension	Increased vascular resistance

Drug–Alcohol Interactions

OTC Drug	Potential Adverse Effect	Mechanism
Aspirin	Increased gastrointestinal blood loss	Prolongs bleeding time
Diphenhydramine HCl	Increased sedation	Depresses central nervous system
Insulin	Increased hypoglycemia	Decreases hepatic gluconeogenesis

Allergies to active or inactive ingredients

- Although the likelihood is low, any medicine can cause allergic reaction.

لازم أوعّي المرضى عن أعراض الحساسية

- Patients should always be counseled about the signs and symptoms of an allergic reaction (Itching, hives, and trouble breathing) and instructed to seek medical care immediately.

- Therefore, for safety reasons, FDA requires inactive ingredients to be listed in the label.

Infants and Children

- For most products, FDA recommends against self-medication in children younger than 2 years, especially using cough and cold products.

  عدم علاج الأطفال بال drugs OTc خاصة بالمحة ونزلات البرد لعمر أقل من سنتين

- Pharmacists can provide recommendations regarding medications with which they are familiar and for which dosage guidelines are readily available (e.g. pediatric acetaminophen products).

  ولكن لو عنده حرارة عادي نعطيه
  على شكل شراب أو تحاميل

Pharmaceutical care for high-risk and special groups Infants and Children

- It is important to differentiate among relatively distinctive pediatric ages as follow:

  - *Premature*: gestation of less than 36 weeks
  - *Neonate*: first postnatal month of life
  - *Infant (baby)*: ages 1 to 12 months
  - *Toddler*: ages 1 to 3 years
  - *Preschool or early childhood*: ages 3 to 6 years
  - *Middle childhood*: ages 6 to 12 years
  - *Adolescence*: ages 13 to 18 years *adult*

Infants and Children

TABLE 2-1 Selected Medication Administration Guidelines for Oral Medications

Infants

- Use a calibrated dropper or oral syringe.
- Support the infant's head while holding the infant in the lap.
- Give small amounts of medication to prevent choking.
- If desired, crush non–enteric-coated or non–sustained-release tablets into a powder and sprinkle them on small amounts of food.
- Provide physical comfort while administering medications to help calm the infant.

Toddlers

- Allow the toddler to choose a position in which to take the medication.
- If necessary, disguise the taste of the medication with a small volume of flavored drink or small amounts of food. A rinse with a flavored drink or water will help remove an unpleasant aftertaste.
- Use simple commands in the toddler's jargon to obtain cooperation.
- Allow the toddler to choose which of the medications (if multiple) to take first.
- Provide verbal and tactile responses to promote cooperative taking of medication.
- Allow the toddler to become familiar with the oral dosing device.

Preschool Children

- If possible, place a tablet or capsule near the back of the tongue; then provide water or a flavored liquid to aid the swallowing of the medication.
- If the child's teeth are loose, do not use chewable tablets.
- Use a straw to administer medications that could stain teeth.
- Use a follow-up rinse with a flavored drink to help minimize any unpleasant medication aftertaste.
- Allow the child to help make decisions about dosage formulation, place of administration, medication to take first, and type of flavored drink to use.

Pharmaceutical care for high-risk and special groups-Pregnant women

حامل

- Most self-medication products state " if pregnant or breast-feeding, ask a health care professional before use"

➢ Pharmacists are trained to assess whether a nonprescription medication is safe for use during pregnancy (A, B, C, D, X system). → *Classes* → totally contraindicated

➢ The decision to suggest a medication must be based on up-to-date knowledge of the literature and a critical risk-benefit evaluation. حسب مقارنة benefit و risk)

➢ Pharmacists should consult a reference such as the *Drugs in Pregnancy and Lactation* by Briggs and others to check for the safety of medication in this population. حياة الأم أهم من الجنين

➢ The pharmacist must be alert to the possibility of pregnancy in any women of childbearing age who has certain symptoms of early pregnancy (nausea, vomiting and frequent urination)

إذا كانت متزوجة بسألها إذا في فرصة للحمل أو إذا في أمراض

Highest risk of teratogenicity is the first trimester of pregnancy → because of organogenesis

أول ٣ أشهر من الحمل

بسبب تكون أعضاد الجنين و بس بعض الأعضاء مثل CNS بتاخد وقت أطول

ولكن لو اضطرت تاخد دوا بتشوه الجنين بسبب حالتها الصحية ← فلازم الأم تاخده لأنه حياتها أهم

Pharmaceutical care for high-risk and special groups-<mark>Nursing</mark> Mothers

مرضعة

- <mark>Breast-feeding mothers</mark> are also faced with difficult choices when selecting nonprescription medications.

- Pharmacists can provide the following recommendations to help avoid problems in women who are breast-feeding:

1. Use <u>nonpharmacologic</u> therapy if possible. حاول أعطيها حلول تساعدها بعيدًا عن الأدوية

2. Take medications <u>immediately after nursing</u> or <u>before the infant's longest sleep period</u>. ولو أعطيتها دواء مباشرة بعد الرضاعة أو قبل أطول نومة لطفلها

3. Avoid recommending any medications that are <u>extra-strength</u>, maximum-strength or <u>long-acting</u>. وإذا اضطرت تاخذ هيك دواء لازم تحوّل عالرضاعة الصناعية بهاي الفترة

4. Avoid recommending <u>combination</u> products.

5. Counsel about potential side effects that could occur in the child.

فلو كانت الأم تاخذ antihistamine بحكيلها أنه ممكن ابنها ينام أكثر drowsiness

Nursing Mothers

Nonprescription medications that are usually considered compatible with breast-feeding include the following[46,50]:

بس المطلوب بالأحمر .

- *Analgesics:* acetaminophen, ibuprofen, naproxen, and keto-profen
- *Antacids*
- *Antidiarrheals:* kaolin-pectin, attapulgite, and loperamide
- *Antihistamines:* brompheniramine, chlorpheniramine, diphen-hydramine, and triprolidine
- *Antisecretory agents:* cimetidine, famotidine, ranitidine, and nizatidine
- *Cough preparations:* dextromethorphan
- *Cromolyn sodium*
- *Decongestants:* phenylephrine and pseudoephedrine
- *Fluoride*
- *Laxatives:* bran type, bulk-forming type, docusate, glycerin suppositories, magnesium hydroxide, and senna
- *Vitamins*

Managing minor ailments in the community pharmacy

Patient presentation

لیش بیجي مرضى عالصیدلیة؟

- Members of the public present to pharmacists and their staff in a number of ways, which include:

أعراض بشتكي منها

1. Requesting advice about <u>symptoms</u> and appropriate treatment.

بیه دواء معین

2. Asking to purchase a <u>named medicine</u>.

بسأل كیف سیستخدم دواء معین/ أو لشو بیستخدم

3. <u>Requiring general health advice</u> (e.g. about dietary supplements).

4. Asking about <u>effects/symptoms</u> perceived to <u>relate to prescribed medicines</u>.

أعراض بیشتكي منها الها علاقة بدواء بیاخذه

Role and responsibility of pharmacist

1. Differentiation between minor and more serious symptoms

2. Effective communication: Listening skills & Questioning skills

3. Treatment choices based on evidence of effectiveness

   أقرر العلاج

4. Role model & educator: the ability to pass these skills on by acting as a role model for other pharmacy staff

   قدوة ومعلم لموظفني الصيدلية

Working in partnership with patients

ما بصير أعامل المريض على أنه جاهل

- Any person seeking advice about symptoms is considered as patient.

- Pharmacists are skilled and knowledgeable about medicines and about the likely causes of illness but **patients are not blank sheets:** ليش؟

1. May have experienced the **same or a similar condition in the past**

2. May have **tried different treatments already**

3. Will have **their own ideas about possible causes** ما بصير كل شوي أسكته

4. May **have preferences for certain treatment** approaches ممكن يفضّل دواء معين

5. Will **have views about different sorts of treatments**

ممكن يكون المريض طبيب

Responding to a request of a named product

لو طلبني مريض اسم دواء معين بده اياه ؟ شو وظيفتي ؟

- Consider if the person making the request might be an **expert**?!
  - Expert user is someone who has used the medicine before for the same or a similar condition and is familiar with it.

- While pharmacists and their staff need to ensure that the requested medicine is appropriate, they also need to bear in mind the previous knowledge and experience of the purchaser.So:

  - Briefly explain why questions are needed? بسأله ليش محتاجه؟
  - Fewer questions are normally needed when customers request a named medicine that t<u>hey have used before</u>. وإذا استخدمه قبل أو لا
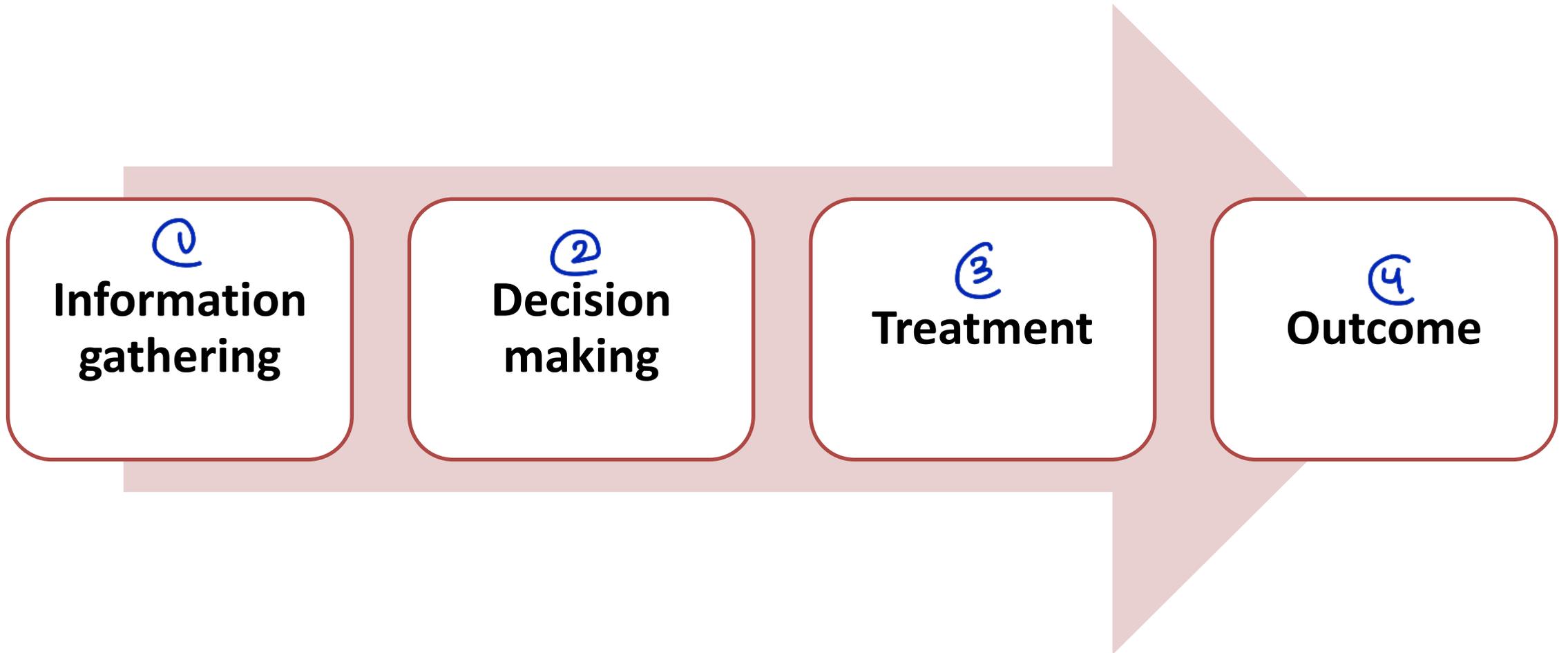
1- Information gathering

by good communication

- Information gathering is to develop rapport, <u>listen and question</u> to obtain information

- The process should start with questions and perhaps an explanation of why it is necessary to <u>ask personal questions.</u>

↓

مِين هو المريض وكم حمره
وكله المشكلة والأعراض يلي بحاكي منها
وشو عنده حساسية

2- Decision making

Is this disease easily controlled by OTC or needs medical referral ?

- Community pharmacists have developed procedures for information gathering when responding to requests for advice that identify when the presenting problem can be managed within the pharmacy and when referral for medical advice is needed.

- **Referral?**

The possible reasons for referral for further advice include the following:

فى لازم أحوله عطبيب ؟

- Unknown cause for symptoms ①
- Incomplete information (e.g. an ear condition where the ear has not been examined) ②
- Duration or recurrence of symptoms ③
- Potential need for a prescription-only medicine ④

زي دواد حنفظ

As a general rule, pharmacist should consider referring the patient to the doctor:

- Long duration of symptoms
- Recurring or worsening problems
- Failed medication (one or more appropriate medicines used already, without improvement)
- Suspected adverse drug reactions (to prescription or OTC medicine)
- Red flag signs and symptoms

Examples of Red flag symptoms

- Bleeding *نزيف or bloody diarrhea*
- Signs and symptoms of infection (<u>fe</u>ver, <u>p</u>us, <u>s</u>welling)
- Loss of <u>appetite or weight</u> without reason! ممكن عنده كانسر
- Severe pain

3- Treatment

- The pharmacist's background in pharmacology, therapeutics and pharmaceutics gives a sound base on which to make logical treatment choices based on the individual patient's need.

- In addition to the effectiveness of the active ingredients included in the product, the pharmacist will need to consider potential interactions, cautions, contraindications and adverse reaction profile of each constituent.

Pharmacists should be aware of!!

√ • Drug interactions: فلازم أسأل المريض شو بياخد أدوية؟
  – OTC drugs may **worsen existing medical conditions or interact** with prescription medications.

√ • Abuse or misuse of OTC drugs

√ • Hidden ingredients in OTC drugs
  ↳ Allergy

4- Outcome

- Pharmacist should advice the patient what action to take if the symptoms do not improve لازم نصح المريض في حالة

- TIMESCALE!!

فالجدول الزمني مهم عشان إذا ما تحسن خلال مدة معينة ممكن يحتاج medical referral

PATIENT CONSULTATION

Structuring the consultation

- It is very useful to adopt a framework to help structure the consultation.

- Pharmacists need to develop a method of information seeking that works for them.

- 1st build rapport!!

حين المرضا

W – **Who is the patient** and **what are the symptoms**? هو؟ أمها أو أبوه أو لخوه

H – **How long** have the symptoms been present?

A – **Action taken?**

M – **Medication being taken?**

Patient

- Confirm identity

Drug

- Name
- Strength
- Indication

Directions

- Route
- Frequency
- Duration
- Missed doses
- Storage

Precautions

- Adverse effects
- Food & drug interactions
- Contraindications
- Steps to take if any of the above are encountered

Monitoring

- How to monitor response to therapy
- Expected therapeutic outcomes
- When to seek medical attention
- Refill information
- Any other information specific to drug/patient

Pharmacist's role in nonprescription drug therapy

- In the initial encounter with a patient who is seeking assistance with nonprescription drug, the pharmacist should:

  1. Assess, by interview and observation, the patient's physical complaint/ symptoms.

  2. Differentiate self-treatable conditions from those requiring a physician's intervention.

  3. Advise and counsel on the proper course of action (no drug treatment, self-treatment with nonprescription medications, or referral to a physician).

  4. Advise the patient on the outcome of the selected course of action.

  5. Assure the patient that the desired therapeutic outcome can be achieved if nonprescription medications are taken as directed on the label.