

Over-the-counter drugs and misuse of prescription in the current era: Role of community pharmacist to prevent abuse.

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ABSTRACT

OTC medications are ones that may be used by the general population without a prescription and are safe and effective. In the United States, the FDA determines whether a drug is safe enough to be sold over-the-counter. Additionally, using OTC medication is not safe and may result in future drug-related issues. Community pharmacists are crucial in the distribution of over-the-counter medicines because they can give advice on their usage, administration, and potential adverse effects.

Keywords: Over-the-counter, FDA, Adverse effects, Drug-related issues.

I. INTRODUCTION

OTC medications are ones that may be used by the general population without a prescription and are safe and effective. These medications, which are over-the-counter or non-prescription, are also known as prescription decontrolled pharmaceuticals. It is generally used to treat symptoms rather than to replace prescription medications. In India, community pharmacists frequently provide over-the-counter (OTC) medications, however occasionally the public abuses these drugs, which might put the patient's life in danger. Analgesics, antibiotics, cough suppressants, anti-acne pharmaceuticals, NSAIDs, antifungals, antihistamines, smoking cessation therapies, etc. are often prescribed OTC medications.

Legal aspects OTC.

As described by Food Drug Administration

OTC medications are those that you may purchase without a prescription. A few over-the-counter medications relieve pain and itch relief. Some are able to treat or prevent illnesses including fever, colds, and coughs. Others assist in managing recurrent issues like migraines. In the United States, the FDA determines whether a drug is safe enough to be sold over-the-counter. Additionally, using OTC medication is not safe and may result in

future drug-related issues.^[2] Therefore, it is best to consult with medical specialists before using OTC medicine from the drugstore. You should never use over-the-counter (OTC) drugs for a longer period of time or in larger quantities than the label prescribes. It is vital to take medications properly and to use caution when administering them to children.^[3] If your symptoms don't go away, it's clear that stop your medication and visit your health care provider.^[4]

OTC medications are trusted first lines of defence for many common disorders, and doctors are aware of the critical role they serve in patient care. In a poll of primary care physicians in the United States, 75% said they would first offer an over-the-counter (OTC) treatment to relieve their patients' signs and symptoms of illnesses including the common cold, cough, gastritis, allergies, etc.^[5]

Community pharmacists help patients by guiding them through the numerous product alternatives and selecting the best prescriptions for each patient's requirements. They are crucial in helping people realise the advantages of OTC medications. The community pharmacist also offers information on the usage of pharmaceuticals, administration, frequency, and prescription adverse effects. By detecting potential drug interactions between over-the-counter medicines and food or nutritional supplements, the pharmacist can give safety advice.^[6]

Reasons for self-medication

A hugely populated nation like India is challenged by an appallingly low doctor-to-patient ratio, which fosters a favorable environment for the desire for over-the-counter medications to thrive. The following are the causes:

- A previous prescription, time savings.
- The high cost of a doctor's appointment
- A pharmacist's advice
- Poverty
- Ignorance
- False beliefs



- Overcrowding of medical mistakes and other factors.^[7]

Guidelines for choosing on using OTC drug

- To avoid creating new health problems, be as precise and free of assumptions as you can while self-diagnosing.
- Choose products with fewer, suitable components that don't include allergies; more active compounds result in medications that aren't essential, which raises risk and costs for treatment
- Ensure that you carefully read the label to learn about the suggested doses, any side effects, and any contraindications.
- Consult your physician or your neighborhood pharmacy if you have concerns about medication.
- If you take several drugs, keep an eye out for any possible drug interactions.
- Strictly follow the dosage instructions. If the signs and symptoms do not go away, visit a doctor or a local pharmacy.^[8]

Pharmacy training and attitude

OTC medications can be sold without a pharmacist's advice. But it's crucial that pharmacists take an active part and bear responsibility for drug promotion.^[9]

Doctor training an attitude

Following are some intriguing results from a study of doctors on over-the-counter medications regarding OTC medication.

- 72% of doctors were open to sharing their opinions.
- Doctors were willing to prescribe or recommend an alternative in 21% of cases.
- Only 7% of physicians believed that recommending products that had been marketed is against medical ethics.^[10]

Benefits and risks of OTC

Benefits:

- Improved consumer education
- Decreased cost to third-party players
- Increased access
- Decreased frequency of doctor visits resulting to decreased health-care expenses

Risks

- Inaccurate diagnosis
- Increased costs to patients
- Drug resistance in case of antibiotics
- Delay in obtaining needed therapy
- Perceived loss of control by Physician.^[11]

Selection criteria of OTC products:

The maker of the product must specify the medication's efficacy and safety in order to receive clearance to convert a prescription drug to OTC. Drugs can often be sold over-the-counter (OTC) if misuse and abuse are unlikely.^[12] Drugs are initially only accessible for purchase by the general public with a prescription following a consultation. However, in order to support consumer access to a secure and effective drug, it's possible to switch to an equivalent drug to OTC status after the safety, effectiveness, and easy use of the drug is verified.^[13]

There are three necessary criteria for making medicine available as OTC.^[12]

Diagnose: The diagnosis should be made by the patient. For instance, hay fever is easily identified and may be treated with efficient OTC medications like antihistamines. However, there are some situations when patients may need advice from the pharmacist, such as when using different histamine H2 receptor antagonists that are sold over-the-counter (OTC) to temporarily relieve the symptoms of acid reflux, dyspepsia, and heartburn. Although it is not difficult to diagnose them, a pharmacist would advise a patient to consult a doctor if they were buying these medications frequently.

Efficacy: A medicine is sold as OTC because it is considered sufficiently safe, without considering its efficacy. OTC drugs aim to provide the maximum efficacy with the lowest dose possible to ensure safety.

Safety: OTC medications prioritize safety over efficacy in order to prevent problems brought on by self-medication. A drug shouldn't be sold over-the-counter if it has the potential to have negative side effects. When it was discovered that Astemizole and antihistamines might cause ventricular arrhythmias, they were taken off the market. Limiting OTC formulations' dose levels may lessen side effects.^[12]

Other criteria for making the medicines OTC include improved and rapid accessibility and shifting costs.^[12] To switch the prescription version of a drug to OTC, the drug must have some characteristics that cause it to be suggestive of self-medication, and they are as follows:

- It should be simple to identify the symptom of medication-assisted therapy.
- The medication has to have a larger safety margin.
- The medication should be simple to use and take effect right away after being taken.
- The drug shouldn't be narcotic or addictive
- Drug usage shouldn't conceal any underlying, possibly hazardous issues.

Misuse or overuse of OTC medications

- Improper illness and symptom management may result in the overuse of medications and their associated negative effects.
- Both excessive and ineffective drug usage can have disastrous effects.

- A patient may have a potentially dangerous but curable condition if they obtain the wrong diagnosis and the wrong OTC drugs. ^[14]
- A poor risk-to-benefit ratio
- A low ratio of socioeconomic benefits
- Polypharmacy
- High potential for abuse and overuse. ^[15]

Table 1: Commonly seen OTCs and their adverse effects. ^[14]

Symptoms	Medications	Adverse Effects
Cough / Cold	Chlorpheniramine maleate,	Drowsiness, dry mouth, headache,
Fever/Headaches/Body aches/sprains	Phenylephrine, Pheniramine,	fatigue, nausea, loss of appetite,
GI ailments like hyperacidity/constipation/diarrhea/nausea	Paracetamol	increased heart rate
Pain relievers	Ibuprofen,	Nausea, headache, confusion, fluid retention,
Nasal decongestants	Ibuprofen+Paracetamol,	dizziness, abdominal pain
Motion sickness pills	Diclofenac	Constipation, dizziness, headache, abdominal pain,
	Psyllium, Methylcellulose,	Constipation, liver damage, drowsiness, addiction risk, allergic reactions
	Polycarbophil, Acetaminophen,	Restlessness, rapid heart rate, insomnia, anxiety, high blood pressure
	ibuprofen, Pseudoephedrine	Drowsiness, constipation, blurred vision, dry mouth/nose/throat
	Dimenhydrinate and Diphenhydramine	

Commonly misused OTC drugs

- Cough suppressants
- Pain relievers
- Antihistamines
- Laxatives
- Diet pills
- Caffeine. ^[16]

II. CONCLUSION

Self-care and self-medication are essential elements of the health care system. OTC medications are used as part of the self-medication process. OTC medications are used to treat a variety of common ailments, including pain, cough, cold, diarrhea, and constipation. Community pharmacists play a crucial role in helping patients understand the advantages of over-the-counter drugs. They help patients sort through the various product possibilities and suggest the best drugs for different patients. Community pharmacists are crucial in the distribution of over-the-counter

medicines because they can give advice on their usage, administration, and potential adverse effects.

Conflict of Interest

The author declares there is no conflict of interest.

Abbreviations

ADR: Adverse Drug Reaction **FDA:** Food and Drug Administration; **Act;** **NSAIDs:** Non-steroidal anti-inflammatory drugs; **OTC:** Over-the-counter; **Rx:** Medical Prescription or to take.

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