

OVER-THE-COUNTER MEDICATION: AN ABUSE**Shindya B.*, Priyanka S., Megha Anna Varghese and Joice Merlin S. D.**

Department of Pharmacy Practice, Karpagam College of Pharmacy, S.F.762, Pollachi Main Road, Othakkalmandapam, Coimbatore-641032, Tamil Nadu, India (Affiliated to The Tamil Nadu Dr.M.G.R Medical University).

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Corresponding Author*Shindya B.**

Department of Pharmacy
Practice, Karpagam College
of Pharmacy, S.F.762,
Pollachi Main Road,
Othakkalmandapam,
Coimbatore-641032, Tamil
Nadu, India (Affiliated to
The Tamil Nadu Dr.M.G.R
Medical University).

ABSTRACT

Over-the-counter drugs is defined as the pharmaceuticals with safe and effective use of the general public without consulting a physician either for diagnosis, prescription, or surveillance of treatment. According to world health organisation, over-the-counter drugs are approved by health authorities to treat symptoms and minor ailments. Billions of health problems are treated annually with non-prescription drugs as primary therapy. Unrestricted availability of over-the-counter drugs is one of the major reason for the misuse of these drugs. Moreover, their inappropriate use in developing countries is high due to inadequate knowledge, lack of experience to medical information. The Food and Drug Administration's 2002 non-prescription drug advisory committee concluded that labeling is a important factor in promoting the safe and effective use of over-the-counter medicines. The drug facts label must effectively communicate the specific informations required for the safe and effective use of the drug. The review concludes that the required

information provided on over-the-drug label in india is usually quite insufficient for the patient for ensuring safe, effective and rational use of over-the-counter drugs. Pharmacist play major role in identifying, solving and preventing drug related problems for achieving patient outcome and quality of life. When pharmacist counsel patients based on over-the-counter product selection and uses, the risks virtually disappear.

KEYWORDS: Over-the-counter drug, medicine, Abuse.

INTRODUCTION

Over-the-counter drugs, referred as OTC (an acronym) is defined as the pharmaceuticals with safe and effective use of the general public without consulting a physician either for diagnosis, prescription, or surveillance of treatment.^[1] And are sold on the shelves of markets, stores and pharmacies.^{[8],[9]} OTC medication is very common and a number of reasons could be enumerated for it. Urge of self-care, feeling of sympathy toward family members in sickness, lack of time, lack of health services, financial constraint, ignorance, misbelieves, extensive advertisement and availability of drugs in other than drug shops are responsible for growing trend of OTC medication.^[2] According to WHO, over-the-counter drugs are approved by health authorities to treat symptoms and minor ailments.^[11] Billions of health problems are treated annually with non- prescription drugs as primary therapy.^[7] There are more than 80 therapeutic categories of OTC drugs. These are typically grouped into 12 therapeutic classes. Analgesics, antipyretics, cold, cough and allergy products, night time sleep aids, dermatological products, gastrointestinal products, other topical products(including antifungal and otics), ophthalmic products, oral health care products, menstrual products, nicotine replacement products, weight loss aids and contraceptives.^[12] over-the-counter medicines has a positive impact on individuals and health care systems if practiced correctly. It allows patients to take responsibility, build confidence to manage their own health, and save time spent in waiting for a doctor, and it may help to decrease health care costs.^[3] The FDA warns consumers that all OTC pain relievers should be taken carefully to avoid serious problems that may occur with improper usage. Pharmacists can be instrumental in assisting patients with using OTC medications safely and effectively.^[4] The world health organisation (WHO) found that OTC medication may result in several potential risks, including incorrect self diagnosis, delay in seeking medical advice, use of excessive dosage, prolonged drug use duration, poly-pharmacy, adverse reaction, drug interaction and drug abuse due to lower medication knowledge.^{[10],[6]} Patients generally had poor knowledge of the potential side-effects of their medication. However, this appeared not to affect their ability to identify adverse drug reactions (ADRs). Accurate information and advice from health care professionals could serve to reassure patients and to ensure they are well informed about the medicines they take.^[5]

OTC ABUSE

Over-the-counter medications are relatively rare as a primary substance of abuse, but there are more commonly noted as secondary and tertiary substance of abuse upon admission.^[19]

Unrestricted availability of OTC drugs is one of the major reason for the misuse of these drugs. Moreover, their inappropriate use in developing countries is high due to inadequate knowledge, lack of experience to medical information.

However OTC drugs can have serious implications (including death) especially in extremes of ages (pediatrics and geriatrics), pregnancy and lactating women and patients with co-morbidities.^[15]

Table 1: Highlights the list of OTC medication with high abuse.^[6]

Therapeutic group	Medication example
Antihistamines	Diphenhydramine Coricidin
Cough medicines	Cough medicines containing dextromethorphan
Codeine-containing products	Compound analgesics and cough medicines
Analgesics	Aspirin Acetaminophen
Hypnotics	Sominex Nytol
Laxatives	Sodium phosphate laxatives Laxatives containing bisacodyl
Decongestants	Pseudoephedrine

Most commonly abused OTC medicines are

1. Dextromethorphan (DXM) (non opioid)

Dextromethorphan are used for relief of cough caused by common cold and it is used with antihistamines, decongestant and expectorants.

General ADR

- Confusion
- Excitement
- Irritability
- Nervousness

2. Loperamide (synthetic opioid)

Loperamide are used to relieve diarrhea and can result in euphoric effect.

General ADR

- Abdominal pain
- Constipation

- Nausea
- Drowsiness
- Dizziness
- Dry mouth.

3. Diphenhydramine (DPH) (H1 receptors)

DPH is used for reducing allergic reaction and also used as sleeping aids.

General ADR

- Drowsiness
- Dizziness
- Fatigue
- nausea
- urinary retention.

4. Acetaminophen

Acetaminophen are used to relief minor aches and pains. Overdose can result in liver failure.

General ADR

- Drowsiness
- Hepatotoxicity
- Nephrotoxicity
- Hypersensitivity reaction.

5. Antacids

Antacids are used to calm stomach upset with heartburn, acid indigestion and sour stomach, it results in acid rebound with long term use.

General ADR

- Diarrhea
- Constipation.^[23]

The harmful effects of OTC drugs are compounded when they are combined with alcohol or other drugs.

Labelling of OTC medicines

Label to include warnings

The FDA's 2002 NDAC concluded that labeling is an important factor in promoting the safe and effective use of OTC medicines. The drug facts label (DFL) must effectively communicate the specific information required for the safe and effective use of the drug.^[27]

The FDA committee was concerned that consumers do not read the labels properly and are often unaware of the active ingredients added in medicines they are taking.^[24]

The FDA does not review each over-the-counter drug product or label, but it requires a specific format and content for OTC labels, including

1. Listing ingredients
2. Explanations of proper use
3. Warning against unsafe use
4. Side effects
5. Adverse effects
6. Contraindications
7. Over dose
8. And special conditions like pregnancy and breast feeding.^{[15],[17]}

Label to direction of use

This includes the dose that has to be given, the dosage regimen, dosage interval and maximum dose allowed per day and the dose for children.^{[20],[22],[25]}

ROLE OF PHARMACIST

Pharmacists are often the 1st line contact for patients and have the opportunity to educate and counsel patients on appropriate OTC medication use.^[6] And they remain as a trusted resource located at the point-of-purchase of many OTC drugs.^[26]

Pharmacist-consumer interaction at the point of purchase can allow the pharmacist to ask questions and communicate key information to an individual's specific situation. For example, a pharmacist can provide a more detailed discussion of risk or side effects which may be underestimated by consumers of OTC products.^[26]

Many problems faced by a patient can be easily solved by pharmacist, including product selection, brand name confusion, appropriate product use, when to take medications.^[6] and counsel patients on the choice and use of medications and related health care products.^[17]

Pharmacist play major role in identifying, solving and preventing drug related problems for achieving patient outcome and quality of life.^[18]

RESULT AND DISCUSSION

The study clearly revealed that there is limited space available on the package of the OTC medication to carry all the required information, hence this cause a great concern based on safe and effective use of OTC medications.^[22]

Patient use of OTC products carries both benefits and risks. Pharmacist describes some important and potentially life-saving intervention.^[27] When pharmacist counsel patients based on OTC product selection and uses, the risks virtually disappear. And they play a vital role in ensuring that the balance of OTC use turns towards benefit rather than risk. Who better to help patients understand and apply health information. The pharmacist is available at the point of purchase to help the patient to select an appropriate OTC product, suggest non-pharmacological therapy, refer the patient to a physician when necessary. As an extension of pharmaceutical care, pharmacist can counsel patients on the appropriate use of OTC products, thereby maximizing the benefits and reducing the risks.^[28]

CONCLUSION

The review concludes that the required information provided on OTC drug label in india is usually quite insufficient for the patient for ensuring safe, effective and rational use of OTC drugs. The label should be simple, straight forward and easy to read and it should contain sufficient informations.

The regulatory authority should immensely implement proper labeling standards for the OTC drugs in india for promoting their safe, effective and rational use.

The pharmacist need to be well informed about the abuse potential of over-the-counter medications. The presence of a pharmacist can ensure safe and effective use of OTC medications.

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CONFLICT OF INTEREST

We declare that we have no conflict of interest.

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