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OTC drugs and its abuse

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Abstract

Over the counter drugs are medicines sold directly to a consumer and do not require the prescription of a registered medical practitioner. So they are also known as non-prescription drugs. This is a serious and growing global health challenge. Some OTC medicines relieve aches, pain and itches. Some prevent or cure diseases like tooth decay and athlete's foot. Others help in managing recurring problems like migraines. It is important to take medicines correctly and be careful when giving them to children. More medicines does not necessarily mean better. Drugs from many different therapeutic classes and numerous dosage forms and drug delivery systems are implicated in non-prescription drug abuse. Individuals who commonly abuse certain non-prescription medications are likewise diverse, varying in age demographics and overall health status.

Keywords: Non-prescription drug, drug abuse

1. Introduction

Over the counter drugs are the medicines sold directly to consumers without prescription from health care professionals and registered medical practitioners. The phrase over the counter drugs has no legal recognition in India, but all drugs not included in the list of prescription only are considered as non-prescription drugs. Over the counter drugs given by the chemist to ensure ingredients that are effective without physician care. The term over the counter somewhat counterintuitive since in many countries these drugs are placed on shelves in self-service areas of stores. In many countries, a number of over the counter drugs are available in establishments without a pharmacy such as general stores, super markets and gas stations. Over the counter drugs are acceptable in non-serious ailments and are favored because of ease of availability, but the main factor is the over the counter drug abuse. So the pharmacist should play an important role of an advocate in guiding patients while recommending over the counter medicines. Over the counter products include categories like digestive antacids, anti-flatulents, cold rubs, analgesics, balm, vitamins, tonic supplements, medicated skin treatment, antiseptic creams, cough liquids, throat lozenges, ayurvedic medicines and preparations. Over the counter drugs still pose a risk for developing an addiction. Abusing over the counter drugs can lead to counter drug abuse, which is one of the serious problems faced by the industry. So we made an attempt to review about OTC drugs and its abuse.

Characteristics of an OTC drug

- Accept safety margin.
- Low misuse and abuse potential.
- Consumer can self-recognize, self-diagnose, self-treat.
- Can be adequately labeled.
- Health practitioners not needed for safe and effective use of the product.

Commonly seen OTC drugs

Cough/cold/fever	Corex, Chericoff, Lemolate, Avil, Deletus, Metacin, Calpol
Headaches/body aches/Sprains	Brufen, Combiflam, Voveran, Volini
Skin ailments like acne, rashes, cuts and burns	Airol, Caladryl, Betadine, Candid, Flutivate, Soframycin
Nutritional supplements	Becosules, Cobadex, Polybion, Shelcal, Protinex, Ferradol
GI ailments like hyperacidity/constipation. They are readily available in many types of stores, not just pharmacies	Digene, Zinetac, Unienzyme, MPS, Lomotil, Dulcolax

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Advantages

- They are less expensive than other costly medicines
- Over the counter drugs are more convenient in case of adults commonly used in various treatments like ache, pain, cough, cold, fever, allergy, skin disorders and digestive problems.
- Readily available in many types of stores, not just pharmacies
- Cheaper than prescription drugs.
- Do not need a doctor visit

Disadvantages

- People self-treat things that require more attention.
- While taking with prescription medicines that may cause drug interactions.
- Social approach that do not require prescription they are safe.
- Selection of wrong medication due to misdiagnosis.
- Often go over the counter when they have lost their effectiveness as prescription drugs due to resistance and overuse.

Restricted over the counter substances

An ill-defined third category of substances comprises those products having over-the-counter status from the FDA, while being simultaneously subject to other restrictions on sale. While these products are legally classified as OTC drugs, they are typically stored behind the counter and are sold only in stores that are registered with their state. These items may be unavailable in convenience or grocery stores that stock other non-restricted OTC medications. There are regulations applies to some forms of emergency contraception. The FDA considers these products to be OTC substances for females age 17 or over but prescription drugs for younger women. To enforce this restriction and to provide counseling and education on proper use, an agreement between the manufacturer and the FDA requires that these drugs are stored behind the pharmacy counter. Women may obtain the medication without a prescription after providing proof of age to pharmacy staff and receiving any necessary patient education

Furthermore, some Schedule V controlled substances may be classified as OTC products in certain states. Such drugs are sold without a prescription, but are subject to record-keeping rules and quantity and/or age restrictions, and must be dispensed by a pharmacy.

Requirements of OTC products

- Standards for safety and efficacy
- Good manufacturing practices(inspections)
- Labelling under 21CFR201.66.

Safety and effectiveness standards for OTC products

- Same standards as prescription drugs.
- Also consumers must be able to self-diagnose, self-treat and self-manage.
- This can be assessed through label comprehension studies and actual use studies.

Commonly abused OTC medicines

- **Dextromethrophan (DXM)**

Dextromethrophan is the active ingredient found in many OTC cough syrups as robitussin and nyquill, Delsym, Delsym 12 hours cough relief, Dex Alone, which is used as antitussives. It can produce psychoactive effects when taken

in large dose than recommended and has become a popular legal drug of abuse. Some adverse effects include

- Dizziness
- Vomiting
- Hallucination
- Dissociative state
- Coordination problems
- Nausea
- Impaired judgment

- **Pseudoephedrine (Cold medicine)**

Pseudoephedrine is an active ingredient present in nasal decongestants. The common brand names are

- a. Robitussin, cold cough and flu
- b. Duraflu
- c. Alka-Seltzer plus Flu/Body.

It is used to relieve symptoms associated with cold, allergy, hay fever. The amount which are allowed to buy pseudoephedrine is limited. The drug is limited due to the illegal production of methamphetamine from pseudoephedrine pills but still some people abuse this in order to experience euphoria and stimulant effects. Its adverse effects include

- Dizziness
- Vomiting
- Stomach pain
- Nausea
- Irregular heartbeat
- Weakness
- Breathing problems.

- **Dramamine (Motion sickness pill)**

Some people have begun abusing motion sickness pills such as Dramamine for its euphoria and relaxation effect. Higher doses cause hallucination as well, similar to those hallucinogens such as LSD and mushrooms. Side effects include,

- Dizziness
- Vomiting
- Nausea
- Blurred vision
- Eye pain
- Amnesia

- **Paracetamol (Acetaminophen)**

Paracetamol is the most commonly used over the counter analgesics. Commonly seened products are Coricidin HBP Maximum Strength Flu, Vicks Nyquill and Flu Night Time Relief (alcohol free) If larger dose is taken serious toxicity can occur. Paracetamol is a para amino phenol derivative because of its adverse effects it is now harmed. The main ingredient present in paracetamol is Tylenol which is used to relieve pain, fever, cough, allergic remedies and large dose cause liver damage. The adverse effects include,

- Diarrhea
- Sweating
- Nausea
- Stomach pain(gastritis)
- Liver damage
- Stomach bleeding
- Reye syndrome in children

Conclusion

Over the counter drugs means drugs that are legally allowed

to sell by the pharmacist. Drugs from many different therapeutic classes and numerous dosage system are implicated in non-prescription drug abuse. Diseases get cured but people are not knowing the side effects of OTC medicines they are administering. It is important to take medicines correctly and be careful when given to the children. OTC medicines should not be taken in longer or in higher dose than the labeled recommends. So it is very important to consider the instruction of medical practioners for OTC products

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