

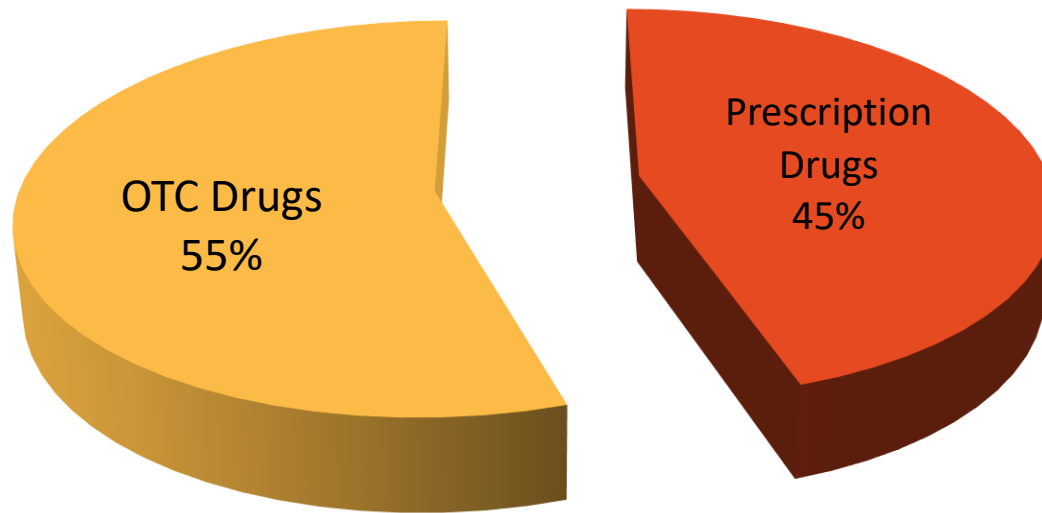
OTC drugs are those drugs which are safe and effective for use by the general public without a doctors prescription.

SIGNIFICANCE

- Comparatively cheaper
- Chemist himself may prescribe OTC
- consumers are able to
 - Self diagnose
 - Self treat
 - Self manage
- OTC considered as time saving medications. Some patients do not want to spend much time at physicians clinic.
- Lesser number of side effect compared to prescription medications.

MARKET ANALYSIS

Drugs Used by Indians



“Over-the-counter drug products account for 55 percent of drugs used by Indians.”

RULES FOR THE PROPER USE OF OTC DRUGS

- Always know what you are taking.
- Know the effects.
- Read and heed the warnings and cautions.
- Don't use anything for more than 1 to 2 wks.
- Be particularly cautious if also taking prescription drugs.
- If you have questions, ask a pharmacist.
- If you don't need it, don't use it!

Many patient groups may be particularly susceptible to adverse events that are caused by OTC products.

They include:

- ☐ Children
- ☐ Women who are pregnant or breast feeding
- ☐ Geriatric patients
- ☐ People taking prescription drugs & people having health problems

OTC Medications Are Safe But Not Risk-Free

As with all medications, there can be risks with use. The risks of OTC use include:

- Delay in seeking medical advice for a serious illness.
- Risk of drug-drug/herbal/dietary supplement interactions.
- Risk of adverse events.
- Potential for dependence, misuse and abuse.

MISUSE AND ABUSE OF OTC DRUGS

- Physical dependence
- Psychological dependence
- Nonprescription products that can be severely habit-forming: decongestants, laxatives, antihistamines, sleep aids, antacids and ephedrine.
- Only 16% reads the entire product label. If they read them they do not follow the directions on the label.
- Abuse is most common in adolescents aged 10-17 years. Adolescents are 18% times more likely to dies from an OTC overdose than from a illicit drug dose overdose.

Product type	Examples
Solvents	Methylated and surgical spirit
Propellants	Pain relieving sprays
Chemicals	Citric acid
Opioids	Codeine, morphine
Laxatives	Senna

Overdosing has occurred with non prescription medicines, particularly those that contain paracetamol. Adverse reactions can also occur but rare. Pharmacist should therefore ensure that advice and information are available on the safe and effective use of medicines.

In what way the OTC drugs can be Harmful.

- OTC drugs can change the effect of prescription medications.
- OTC drugs can mask symptoms of disease.
- OTC drugs can lead to overdose.
- If misused even common over-the-counter drugs, such as aspirin, vitamins, or cold remedies can be harmful.

RATIONAL USE OF OTC DRUGS

ANALGESICS

There are basically two types of OTC pain relievers:

☐ Acetaminophen

☐ Non-steroidal anti-inflammatory drugs (NSAIDs).

- Acetaminophen is an active ingredient found in more than 600 OTC and prescription medicines, including pain relievers, cough suppressants, and cold medications.
- NSAIDs are common medications used to relieve fever and minor aches and pains. They include aspirin, naproxen, and ibuprofen, as well as many medicines taken for colds, sinus pressure, and allergies. They act by inhibiting an enzyme that helps make specific chemicals.

Use as Directed

Pain medications are safe and effective when used as directed. However, misuse of these products can be extremely harmful and even deadly.

- Patients who take pain relief medications must follow their health care professional's instructions carefully. If a measuring tool is provided with the medicine, use it as directed.
- Do not change the dose of pain relief medication without talking to doctor first.
- Also, pain medications should never be shared with anyone else. Only the health care professional can decide if a prescription pain medication is safe for someone.

With acetaminophen:

- Taking a higher dose than recommended will not provide more relief and can be dangerous.
- Too much can lead to liver damage and death. Risk for liver damage may be increased in people who drink three or more alcoholic beverages a day while using acetaminophen-containing medicines.
- Be cautious when giving acetaminophen to children. Infant drop medications can be significantly stronger than regular children's medications. Read and follow the directions on the label every time while using a medicine. Be sure that infant is getting the infants' pain formula and older child is getting the children's pain formula.

With NSAIDs:

- Too much can cause **stomach bleeding**. This risk increases in people who are over 60 years of age, are taking prescription blood thinners, are taking steroids, have a **history of stomach bleeding or ulcers, and/or have other bleeding problems**.
- Use of NSAIDs can also cause **kidney damage**. This risk may increase in people who are over 60 years of age, **are taking a diuretic (a drug that increases the excretion of urine), have high blood pressure, heart disease, or pre existing kidney disease**.

With opioids:

- Use of opioids can lead to **drowsiness**. Do not drive or use any machinery that may injure you, especially when you first start the medication.
- The dose of an opioid pain medication that is safe for you could be high enough to cause an overdose and death in someone else, especially children.

COUGH SUPPRESSEDENTS

The role of cough medicine is to ease symptoms while your body heals.

OTC cough medicines are only three basic types:

- **Expectorants** help thin mucus, making it easier to cough up. Main ingredient is the guaifenesin.
- **Suppressants** help cut the number of times you cough. The active ingredient listed is usually **dextromethorphan (DM)**. Other cough suppressants include camphor, eucalyptus oil, and menthol.
- Combination cough products have more than one active ingredient. They have both **guaifenesin and dextromethorphan**. Cough medicines may also contain ingredients to help coat and soothe the throat.

- Combination products may have medicines to ease other symptoms, that may include decongestants for stuffy nose, antihistamines for allergies or a runny nose, or painkillers. Choose a medicine that matches your symptoms.
- Cough drops can also **help relieve a cough and may ease a sore throat.**
- Cough suppressants containing opioid should be taken with extreme caution. The main ingredient of opioid cough suppressants are dextromethorphan.

How to Use Cough Medicine Safely

- Look at the ingredients.
- Check the label. Is it a suppressant or an expectorant? Is it both? Make sure you're getting what you need.
- Don't use medicine for more **than 7 days**.
- Always measure the correct dose. Because even safe medicines in high doses can be very dangerous. High doses of cough medicine can cause serious problems, including brain **damage, seizure, or** death.
- Be careful with combination medicines. Many OTC cough medicines have multiple ingredients -- expectorants and suppressants along with decongestants, antihistamines, or painkillers. Select products with only the medicines that treat your symptoms. Don't take two medicines that have the same ingredients.

- ❑ Keep away from young children. Make sure to choose the right medicine based on your child's age. Don't give cough and cold medicine to children under age 4. For kids 4 to 6, ask doctor first. And always make sure to follow the dosing directions on the label.
- ❑ Consider doing nothing. Waiting out a cough is the simplest option. Remember that most coughs don't need treatment. You don't have to take any medicine. Give your body a week and your cough will probably go away on its own. If it doesn't, see your doctor.
- ❑ Read the label. After you choose the right medicine for you, read the label carefully, understand how to take it, common side effects, and any warnings you need to be aware of.

Reduce risk of problems with NSAIDs

- Drinking alcohol while you're taking an NSAID increases your risk of bleeding.
- Take NSAIDs with food and water.
- If you have a history of stomach problems, consult doctor before taking OTC NSAIDs.

When choosing pain relief medication, it's most important to take the **lowest dose that works for you** and to take it as directed.

And if pain continues for more than a 10 days or isn't controlled by the OTC NSAID, consult doctor

SPECIAL PATIENT GROUPS AND NSAIDs

Talk with r doctor before taking any NSAID if you:

- Are over age 60
 - Are pregnant or nursing
 - Have three or more drinks of alcohol every day
 - Have bleeding problems
 - Have liver or kidney disease
 - Have heart disease
 - Take a medicine to thin the blood, such as warfarin (Coumadin)
 - Take a medicine for high blood pressure
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- Children and teenagers who are recovering from a viral infection such as the flu or chickenpox should not take aspirin. It has been linked to Reye's syndrome, a serious but rare condition that can result in brain, kidney, and liver damage.
 - Naproxen sodium is not recommended for children under 2.
 - Ibuprofen is considered safe for children 6 months and older in the right dose

Patient considerations for Rational Use of OTC drugs

- To minimize the risks of an accidental overdose, patient should check and avoid taking multiple medications with the same active ingredient at the same time.
- Talk with the pharmacist or another health care professional if patients have any doubt/questions about using OTC medicines, and especially before using them in combination with dietary supplements or other OTC or prescription medicines.
- Follow the instructions of the dispensing pharmacist and the information presented in the label.
- Ensure you explained all the symptoms to pharmacist, that he can choose right medications for you.
- Notice your pharmacist, if you had any history of drug allergy, abuse, renal or liver disease.
- Consult doctor immediately if experiencing any unusual effects after taking OTC products.

Pharmacist considerations for Rational Use of OTC drugs

- Ensure and double check the dispensed products.
- Ask the patient clearly about the symptoms , their past medical and medication history.
- Give proper counselling on the use, storage and handling of missed drug dose.
- Ask the patient to properly follow the instructions in the label.
- Follow-up the patient and ensure the patient is not experiencing any ADR.
- Calculate the dose for infants and children before dispensing OTC drugs for them.
- Educate and promote the patient on safe and rational use of drug.
- Provide aids to patients, if possible.