### SELF MEDICATION: A SUBJECT TO REVIEW

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#### **Summary**

Self medication is one domain of self care. In other words, self medication is the use by lay persons of non-prescription medicines (OTC) for symptoms and minor ailments, with those persons bearing the full responsibility for his/her own treatment. Self medication assumes increasing importance as consumer seeks to know more about health care. The rise of the consumer movement in health care parallels the rising level of education in the community, and the rising suspicion of consumer groups concerning commercial, bureaucratic and clinical interests in the use of medicines. This paper covers brief review of the factors promoting self medication, therapeutic categories indulged, advantages and risk of the self medication

#### Introduction

Self medication represents an area of healthcare in which the patient assumes a greater degree of responsibility for the management of minor ailment, using a pharmaceutical product that is available without a prescription. In simple terms, defined as "the use of medicines by a person by himself for treating a perceived or real health problem without consulting a physician. Medicines for self medication are often called as 'non – prescription' or 'over the counter' (OTC) and are available in supermarkets and other outlets. Medicines that require a doctor's prescription are called as prescription products (Rx products). [1]

## **Rx-to-OTC** switch:

As medical science advances and experience with newer medicines evolves, mechanisms need to be in place to allow firms to apply for the reclassification or switch of ingredients from prescription to nonprescription status if they are shown to be safe and effective for direct consumer use. This is typically refereed to as prescription- to- nonprescription (Rx-to-OTC) switch. These switches have been based on solid evidence. Some examples include:

- 1. H2 antagonist at the dose appropriate for heartburn to not only treat, but also prevent the condition.
- 2. Nonprescription topical antiviral to treat cold sores.
- 3. Antifungal ingredients, imidazoles have been switched from prescription to nonprescription status for women to treat recurring vaginal yeast infection.

In some cases, the new product rather comes directly to the market as a nonprescription medicine like in case of expanded indications, different strengths, or new dosage forms of an active ingredient. [2-3]

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## **Factors Promoting Self Medication:**

Everyday, everywhere, consumers reach for self medication to help them through their common health problems. They do so because of lack of time to visit a physician, increased awareness of drugs, tendency for look for fast symptomatic relief, relatives and friends advice based on their experience, it may be easier for them, may be more cost or time efficient [4].

## Penetration in India, United States and Europe Data:

Statistics on self medication in India are scary. It was found that 31 percent Indians practiced self medication; about 26.9 percent of them are in the age group of 31 to 40 and 30.8 percent between 41 and 50 years. Men self prescribed more than women and education does not make anyone wiser- 23.1 percent illiterate and 26 percent graduates of Indians said they did not believe in self medication, about 30 percent proclaim it to be safe. In 2005 study, the National Addiction Research Center found that nearly 30 percent of Indians were hooked on to anti anxiety drugs. [5]

According to pulse magazine, 43 percent of doctors in the UK write prescription for their personal use, including antibiotics and strong painkillers which contravene general medical council advice. According to National consumer league, over 175 million Americans take OTC medication for pain relief and 44 percent exceed the recommended dose and millions ignore label information. People so desperately want to get rid of pain so they can rush about their lives that they take more medicine than they should.

# **Therapeutic Categories for Self Medication:**

Major categories include painkillers like disprin, antibiotics which may lead to sometimes antimicrobial resistance, NSAID'S, cold and cough remedies but these preparation can cause acidity, fluid retention in the body, can increase blood pressure or even kidney damage. Ibuprofen and aspirin taken commonly for fever may precipitate an attack in asthmatics. Self medication often delays proper treatment of disease. It can give you a temporary, superficial relief and thus masks symptoms but will lead to serious problems. [6]

In Minor categories self medication includes sleeping pills, minor tranquillizers, tonics like vitamins and minerals, laxatives, antacids and many others. Even dangerous drugs like hormone are used sometimes without a valid prescription. Because medicines are available over the counter, it does not mean they are risk free. [7]

## **Advantages of Self Medication:**

#### Healthcare cost:

In some countries, an extension of self medication is seen as a way of constraining healthcare costs, particularly where the government is the main payer of services. Thus encouraging patients to purchase non prescription medication may lead to savings in the drug bill.

#### Patient.

Encouragement of self care is seen as giving patient every opportunity to take responsibility and build confidence in their capacity to manage their own health. Over 2000 individuals were interviewed and almost 80 percent reported that it was important to have non prescription medicines for minor ailment, 67 percent reported that such medicines were just as effective as those obtained from a doctor and 86 percent stated that they would purchase again.

## Healthcare professionals:

Many professional bodies are itself promoting self medication and with in some European countries, the area of self medication is the unique domain of pharmacy. It enables pharmacists to fulfill a more

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clinical role, increases therapeutic options, promotes greater involvement with patients and enhances their professional status.

For physicians, enthusiasm is more tempered, perhaps due to concerns of reduced contact with patients. There is a greater realization that unnecessary consultations with patients who have minor symptoms could be avoided through appropriate and effective self medication. Doctors see this as a positive development and support the practice of giving ordinary citizens a chance to take responsibility for their health [8-9].

#### **Risks of Self Medication:**

The risks associated with self medication include a potential delay in treating a serious medical condition, masking of symptoms of a serious condition through the use of non-prescription product, increased polypharmacy, and interaction with other regularly used medications. Older people are often viewed as a population which may be at increased risk from self medication due to concomitant medicines and medical conditions. Chrischilles et al. reported multiple analgesic product use in older people (>65 years of age) in rural Iowa, USA; non prescription drug products were significant contributors to extensive analgesic use. Another unique at-risk population is children who differ from adults in their response to drugs. The most common medications used were analgesics and cough and cold products. When you take a painkiller with a fever pill and add to it something for cold, you are overdosing your body with active ingredients that multiply, which can cause problems of acidity and stomach cramps. If you keep taking the same drug your body develops immunity and higher doses are required. For diabetics, it is not advisable to take any medications without consulting the physician. [8-9].

#### References

- 1. Bartlome, J.A., Bartlome, P., and Bradham, D.D. Self-care and Illness Response Behaviours in a Frontier Area. *J. Rural Health* 1992; 8(1): 4-12. 115
- 2. Laurie, J. P. In the Shadow of Biomedicine: self-medication in two Ecuadorian Pharmacies. *Soc. Sci. Med. 1989*; 28(9): 905-915.
- 3. Gore, P.R. and Mahavan S. Consumers' Preference and Willingness to Pay for Pharmacist Counselling for Non-prescription Medicines. *Journal of Clinical Pharmacy and Therapeutics*; 1994; 19(1): 17-25.
- 4. Cocks, M., and Dold, A. The Role of 'Africa Chemists' in the Health Care System of the Eastern Cape Province of South Africa. *Soc. Sci .Med.* 2000; 51(10): 1505-1515.
- 5. Mandavi Pramil Tiwari and Vinay Kapur. Self Medication Pattern Among Elderly Patients of North India Public Hospital: A Hospital Based Questionnaire Appraisal. *Indian J. Pharm. Pract.* 2008; 1(1)
- 6. Geissler, P.W., Nokes, K., Pronce, R.J., Achieng, R.O., Aagaard-Hansen, J., & Ouma, J.H. Children and medicines:self-treatment of common illnesses among Luo school children in western Kenya. *Social Science and Medicine*. 2000; 50,1771-1783.
- 7. Hayran, O., Karavus, M., & Aksayan, S. Help-seeking behaviour and self-medication of a population in an urban area in Turkey: cross sectional study. *Croatian Medical Journal*, 2000; 41(3),327-332.
- 8. WHO. The Benefits and risks of self medication. WHO drug information. 2000; 14 (1), 1-2.
- 9. Huges, C.M., McElnay, J.C, and Fleming G.F. Benefits and Risks of Self-medication. *Drug Saf.* 2001; 24(14): 1027-1037.