A SHORT TERM STUDY OF OUTPATIENT PRESCRIBING PATTERN OF DERMATOLOGICAL DRUGS IN A TERTIARY HOSPITAL IN TIRUNELVELI.

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Abstract:
Objective: A short term retrospective study to identify the prevailing prescription trend of various dermatological drugs in the Out Patient Department of a Tertiary Hospital, in Tirunelveli. Materials and Methods: Five hundred prescriptions of patients attending the Dermatology Out Patient Department of Tirunelveli Medical College were collected, by a short term survey between September 1st and 15th 2009 and screened with an emphasis on polypharmacy, rational use of antibiotics, antifungals, antihistamines, vitamins, topical agents other drugs. Each prescription was given a serial number and segregated according to sex, age distribution, number of drugs in a prescription, and number of drugs from Essential Drug List. Results: This analysis showed that the total number of drugs prescribed in 500 prescriptions was 977. Among them 558 (57.1) were in the oral form, 414 (42.37) in the topical form only 5 (0.51) were injectables. There was a preponderance of female patients (53). Most of the patients were in the age group of 21-50 yrs. The average number of drugs prescribed for each patient was 2 (76.4). Patients receiving more than 4 drugs were few (1.2). Commonly prescribed oral drugs were antihistamines (48.57) followed by antibiotics (15.4). The topical agents, commonly prescribed were silver sulfadiazine (18.1), followed by clotrimazole cream (14.8). Out of 58 patients requiring antifungal therapy, most of them received topical antifungal therapy than systemic. Antibiotics were prescribed in the topical form in 36 patients and oral form in 86 patients. Nineteen drugs were prescribed from Essential Drug List. Conclusion: Our observation in this study is that all the prescriptions were given by using the generic names of the drugs. The average number of the drugs prescribed in each prescription was within the acceptable range. Majority of prescriptions were in the oral and topical forms. Prescribing least number of drugs, a decreasing tendency of prescribing injections and an increasing habit of prescribing by generic names reflect a good trend in prescription writing.
Keyword: Prescription, Retrospective, Dermatology, Polypharmacy, Rational, Essential Drug List, Compliance.

Introduction:
According to WHO Rational Use of Drugs requires that “patients should receive medication appropriate to their clinical needs, in appropriate doses, for an appropriate period at the lowest cost”. It should also fulfil the SANE criteria which means that safety, affordability, need and efficacy of the drug should always be considered first before prescribing it to the patient. Rational prescribing therefore involves a right decision of the prescribing doctor for the benefit of the patient. Irrational drug use can lead to reduction in quality of drug therapy, increased risk of unwanted effects, drug resistance etc. The five important criteria for rational drug use are accurate diagnosis, proper prescribing, correct dispensing, suitable packing, and patient adherence. Overprescribing leads to many patients and disease distributions undesired effects. It may not be even very convenient for the patient to take so many drugs & thus valuable and often scarce resources are wasted. Under prescribing is also serious because if the treatment is not effective an aggressive or an expensive treatment may be needed later.

A short term retrospective study was undertaken to identify the prevailing prescription trend of various dermatological drugs in the out patient department of Tirunelveli Medical College Hospital during the period of September 1st to 15th 2009.

MATERIALS AND METHODS:
The study was designed to analyse 500 prescriptions, randomly selected from all the out patients attending the Dermatology Out Patient Department in Tirunelveli Medical College Hospital during the period of 15 days starting on 1st September 2009. They were screened with an emphasis on polypharmacy, dosage forms, rational use of antibiotics, antifungals, antihistamines vitamins and others. The age and sex distributions of the patients and disease distributions were also studied. Each prescription was given a serial number and was segregated according to age and sex distribution, number of drugs in a prescription, dosage forms, groups of drugs prescribed and number of drugs from Essential Drug List.

RESULTS:
Totally 500 prescriptions were documented and analysed in which a total of 977 drugs were prescribed. The mean number of drugs prescribed was 1.95. All drugs were prescribed by generic name. About 79.93% of drugs were from Essential Drug List of India.

Gender analysis revealed that female patients were more in number (63.2%) than males (36.8%) Fig.1
With regard to age, 53% of patients were in the age group of 21-50. While 20.8% patients were in the age group of 31-40. <10 years occupies 20.4%.

Number of Drugs / Prescription
The average number of drugs per prescription was 2-3 (76.4%). Among them 2 drugs were found in most of the prescriptions (54.6%). Mostly they were one oral form, and one topical form. More than 4 drugs were rarely found (1.2%).

No. of Drugs
Fig. 6 Topical Forms
Among the topical forms, antibacterials were commonly prescribed followed by antifungals, Emollients and kerotolytics, steroidal agents and scabicidal etc...

DISCUSSION
This retrospective prescription analysis showed that the total number of drugs in 500 prescriptions were 977 with mean number of drugs prescribed was 1.95. This is lesser than that reported from studies conducted in West Bengal (3.2). This shows a good rational prescribing practice. About 76.4% of the prescriptions had 2 to 3 drugs. Maximum patients received 2 drugs (54.6%). One in the oral form and the other in the topical form. Patients receiving more than 4 drugs were few (1.2%).

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Prescribing lesser number of drugs reduces the incidence of drug interactions, unwanted side effects and the cost of the treatment. It also improves the adherence of the patients.\(^5\)

Almost all the drugs were prescribed in their generic names. It reduces the confusion among the pharmacists while dispensing. Generic drugs are more economic than the branded ones. The percentage of drugs prescribed from the Essential Drug List of India was 79.73%. Which is equal to that of the study conducted in North India (75—80%)\(^5\). The reason for this could be related to awareness about essential drug concept and essential drug list among the prescribers.

The dosage form plays a very important role in patients’ adherence. In our study oral dosage forms were prescribed commonly (57.11%) followed by topical form (42.37%). And only 0.61% of drugs were injectables which is less than that noted in the study conducted in North India (0.9%) and in Eastern India (3.9%).\(^3,5\) Minimal use of parenteral preparations avoids unnecessary complications and it is a healthy trend. Most commonly prescribed oral drugs were antihistamines followed by antibiotics. As the highest number of patients were with various types of dermatitis followed by pyogenic infections which is contrast to the report of the studies conducted in Nagpur in which there was higher incidence of scabies and in Ludhiana in which there was higher incidence of fungal infections\(^6,7\). This may be due to our climatic conditions during the time of study and improved hygiene. Most commonly prescribed topical agents were antibacterials followed by antifungals.

Regarding antibacterial and antifungal therapies the prescribed drugs were mainly in the topical form than oral. Appropriate dosage form may ensure the therapeutic efficacy of drugs and reduce the toxicity. Vitamins and minerals were also prescribed to the extent of 12% Most of the patients coming to dermatology out Patient department were in the age group of 20 – 50 (53%)

Female patients were more in number (63.2%) which is equal to the study conducted in Western Nepal\(^8\).

**CONCLUSION:**

A conscious effort on the part of clinicians is required to ensure that prescriptions written by them conform to pharmacological needs. Our observation in this study is that almost all the prescriptions were given by using the generic names of the drugs. The average number of the drugs prescribed are within the acceptable range. The majority of prescriptions were in the oral & topical forms. Prescribing least number of drugs, a decreasing tendency of prescribing injections and an increasing habit of prescribing by generic names reflect a good trend in prescription writing that need to be encouraged with concern towards patients.

**REFERENCES:**


