

A Prospective Observational Study on the Prescribing Pattern in Dermatology Department

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Abstract

The worldwide disease burden from skin conditions is enormous. For treatment, dermatology offers a variety of medication classes and product combinations. The purpose of the study is to analyse the prescribing pattern in dermatology outpatient department. Prospective observational study was conducted at multi-speciality hospital for a period of six months in dermatology outpatient department. A total of 136 prescriptions was collected and evaluated. The data was analysed using MS Excel. Total 136 patients meet inclusion criteria. Out of which, 74 were female and 62 were male. The most skin disease is seen in the age group of 18-27 (35.29%). Out of 459 drugs, most commonly oral route of drugs (34%) was used than topical preparations. The major classification of drugs for skin disease are anti-fungal(22.2%), steroid(13.54%), anti-histamine(8.85%), antacid(1.56%), anti-pruritic(1.56%) and anti-itching, anti-scar(0.52%), anti-bacterial and anti-oxidant(3.13%), anti-biotic(7.81%), anti-parasitic(2.08%), anti-septic(2.60%), anti-viral(1.04%), emollient(8.33%), NSAIDS(3.13%), sun protection(4.17%) and supplements (4.69%) are majorly prescribed drugs. This investigation provided information on several prescription-related topics, such as the number of patients, different age groups, according to formulations, number of medications and class of drugs for the prescription being written.

Keywords: Dermatology, Prescribing pattern, outpatient department, skin disease, class of drugs.

INTRODUCTION

Skin conditions have a greater impact on people's quality of life in developing nations than in developed ones. This is particularly true in countries like India where there are considerable regional differences in social economic status, religion, and climate [1]. The majority of skin diseases are chronic and require prolonged treatment duration, which has a serious adverse impact on the general populations quality of life by causing more physical, social and psychological pain as well as financial difficulties [2]. Patients with dermatological conditions are often treated based on their clinical symptoms and indicators. One of the quality-of-life surveys with a focus on skin disease is the dermatological life quality index [3]. All prescriptions are not always based on the needs of the patient, and medication therapy does not always address every patient need. Therefore, there is just as much worry about over prescription as there is about incorrect and expensive prescribing. Drug prescribing and drug use may now be studied in a formal, scientific manner due to the advancement of the field of drug utilisation research [4]. According to the world health organization, drug utilisation studies and research are instruments that examine medication marketing, distribution and prescription patterns and aid in determining the following effects of these drugs on patients' health and socioeconomic position. Drug utilisation studies therefore aid in identifying prescription patterns as well as the quality of prescription in terms of rationality, drug interactions and financial burden of disease to the individual. The country has a severe lack dermatology in India. These data guided the methodology of the current study, which aimed to describe the

distribution of medications for treating common skin disorders as well as the costs associated with each prescription written at the tertiary care hospitals dermatology outpatient department [2]. The purpose of this research is to gather information to support rational drug usage because no similar study has been done selectively in this area of the country in a medical college and hospital that are so new. The results of the current study's data can also be utilised to distribute medications and provide rough estimations of disease prevalence [4].

Aim and Objectives

The purpose of the study is to analyse the prescribing pattern in dermatology outpatient department.

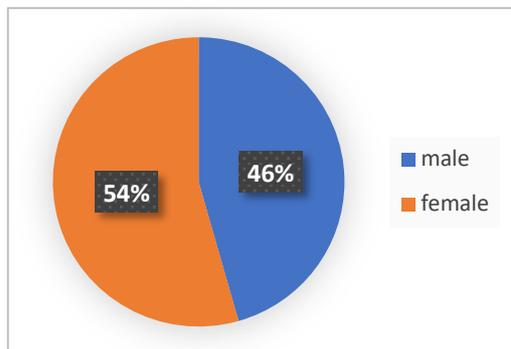
MATERIALS AND METHODS

Prospective, observational study was conducted in outpatient's department of dermatology at multi-specialty hospital for a period of 6 months a total of 136 prescriptions of patients were evaluated. Rationality of drug usage was evaluated by analysing the drug prescriptions. Patient related information (like age, sex) and drug related information (like dosage, formulations were recorded. Various classes of drugs prescribed were recorded (emollients, antacid, anti-fungal, anti-biotic, anti-septic, steroids, NSAID, sun protectants, anti-histamines and supplements). The prescriptions were analysed with the help of descriptive statistics and results were expressed in percentage.

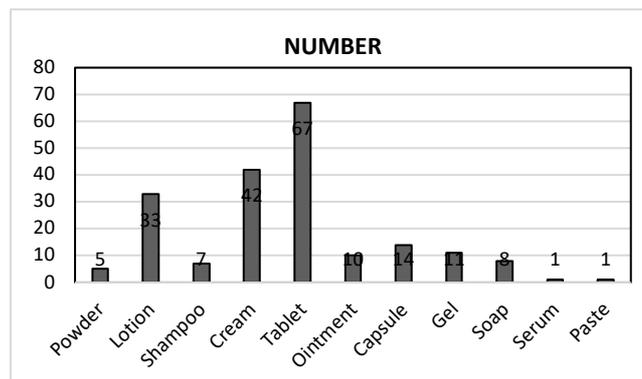
Dermographic Profile of The Patients

A six-month prospective observational study design was used. Data on 136 patients between the ages of 18 and 78

were gathered at the dermatology department, 136 of them were outpatients. In total, there were 74 women and 62 men. The outcome is displayed below.



shampoo. The most common drug used in medicated soap was ketoconazole.



Distribution of Patients According to Age Group

Patients in this study were split into seven groups according to their ages. Out of 136 patients, 48 were under the age of 18-27, followed by 34 between the ages of 28-37, 17 between the ages of 38-47, 16 under the age of 48-57, 11 were from 58-67 years, 6 under the age of 63-77 and 4 from above 78 years.

AGE	NUMBER OF PATIENTS	PERCENTAGE OF PATIENTS
18-27	48	35.29%
28-37	34	25.00%
38-47	17	12.50%
48-57	16	11.76%
58-67	11	8.09%
68-77	6	4.41%
≥78	4	2.94%

Distribution of Patients According to Class Of Drugs

In this study’s participating member population, 44 of the medications were anti-fungal(22.92%), 26 were steroid(13.54%), 17 were anti-histamine(8.85%), 3 were antacid(1.56%), anti-pruritic(1.56%) and anti-itching(1.56%), 1 were anti-scar (0.52%), anti-stretch (0.52%), anti-convulsant (0.52%), anti-dandruff(0.52%), anti-depressant (0.52%), anti-infective(0.52%), anti-microbial(0.52%), exfoliant (0.52%), haematinic(0.52%), hemorheologic(0.52%), keratolytic (0.52%), local aesthetic(0.52%) and wart removal (0.52%). 6 were anti-bacterial(3.13%) and anti-oxidant (3.13%), 15 were anti-biotic(7.81%), 4 were anti-parasitic (2.08%), 5 were anti-septic(2.60%), 2 were anti-viral (1.04%), vasodilators(1.04%), retinoids (1.04%) and immune suppressant(1.04%), 16 were emollient (8.33%), 6 were NSAIDS (3.13%), 8 were sun protection(4.17%) and 9 were supplements(4.69%).

According to Formulations

In our study, we found tablets(33.66%) as the most common dosage form prescribed followed by cream (21.10%), lotion (16.58%), capsules (7.03%), gel (5.52%), ointments (5.02%), soap (4.02%), shampoo (3.51%), powder (2.51%), paste and serum (0.50%). In the soap category, we have included face-wash and

S.NO	DISEASES	NO. OF CASES	PERCENTAGE OF DISEASES
1	Acne vulgaris	5	3.68%
2	Acute cheilitis	1	0.74%
3	Allergic	2	1.47%
4	Alopecia areata	1	0.74%
5	Bullous impetigo	1	0.74%
6	Bullous pemphigoid	1	0.74%
7	Dermatitis	7	5.15%
8	Eczema	11	8.09%
9	Erythemumnodusum	1	0.74%
10	Facial melasma	1	0.74%
11	Folliculitis	1	0.74%
12	Furunculosis	1	0.74%
13	Granuloma annulare	1	0.74%
14	Herpes zoster	1	0.74%
15	Hirsutism	2	1.47%
16	IBA	2	1.47%
17	Intertigo	4	2.94%
18	Keloid	1	0.74%
19	Keratolysis exfolia	1	0.74%
20	Leprosy	1	0.74%
21	Leukoderma	1	0.74%
22	Lichen planus	4	2.94%
23	LSA	1	0.74%
24	Melasma	1	0.74%
25	Miliaria rubra	10	7.35%
26	Notalgia paresthetica	1	0.74%
27	Onychomycosis/paronychia	1	0.74%
28	Pityriasis versicolor	9	6.62%
29	Plantar wart	2	1.47%
30	Pmle	3	2.21%
31	Polymorphic eruption of pregnancy	1	0.74%
32	Prurigo simplex	1	0.74%
33	Psoriasisiform	9	6.62%
34	Scabies	8	5.88%
35	Scar in face	1	0.74%
36	Skin tags	1	0.74%
37	Telogen effluvium	3	2.21%
38	Tinea corporis	8	5.88%
39	Tinea cruris	6	4.41%
40	Tinea incognito	6	4.41%
41	Traumatic fissures	2	1.47%
42	Urticaria	11	8.09%

Distrubution of Patients Accroding to Diseases

In this study populations 5 were acne vulgaris (3.68%). 1 wereacute cheilitis (0.74%), alopecia areata(0.74%), bullous pemphigoid(0.74%), erythemumnodusum (0.74%), facial melasma(0.74%), folliculitis(0.74%),

granuloma annulare(0.74%), herpes zoster (0.74%), keloid(0.74%), keratolysis exfolia (0.74%), leprosy(0.74%), leukoderma(0.74%), LSA(0.74%), melasma(0.74%), notalgia paresthetica (0.74%), onychomycosis/paronychia (0.74%), polymorphic eruption of pregnancy (0.74%), prurigo simplex(0.74%), scar in face(0.74%), and skin tags(0.74%). 2 were allergic (1.47%), hirsutism (1.47%), INA (1.47%), plantar wart (1.47%), and traumatic fissures (1.47%). 7 were dermatitis (5.15%), 11 were eczema (8.09%) and urticaria (8.09%), 4 were intertigo(2.94%) and lichen planus(2.94%), 10 were miliaria rubra(2.94%),9 were pityriasis versicolor(6.62%) and psoriasiform(6.62%),3 were pmle(2.21%) and telogen effluvium(2.21%), 8 were scabies(5.88%) and tinea corporis(5.88%), 6 were tinea cruris(4.41%) and tinea incognito(4.41%), 11 were urticaria(8.09%).

RESULT

A total of 136 prescriptions was assessed prospectively for 2 months. Data were collected from prescriptions. Among the 136-prescription studied 62(46%) were males and 74(54%) were females. Among 136 patients, majority were between the age of 18-27yrs. Out of 459 drugs, most commonly oral route of drugs (34%) was used than topical preparation. During the study period the prescribed classes of drugs are depicted (emollients-15, steroids-26, anti-fungal-43, anti-biotic-14, anti-histamines-17, sun protections-8 and supplements-9).

DISCUSSION

From the study of 136 prescriptions during the duration of six months in a multispecialty hospital, it was found that the most commonly affected population with skin diseases is female patients (54%). This is because females are more exposed to the causative factors of skin diseases when compared to male patients. The results were in concordance with the study done by Saleem et.al. [5]

The study attempted to shed light on the prescription pattern of compounded medicines for skin disorders in multispecialty hospital. It described common skin diseases and their prescribed drug [6].

In our study shows, most of the patients visiting dermatology department were in the age group between 18-27 years, the study conducted by Abebawtegegne et al, were 21-30 years [7].

When compared to male, females are having higher acne disease, the study conducted by Anuj Kumar Pathak et. al., also concluded the same [8].

Among the prescribed drugs, oral route of administration is the most commonly prescribing medicine in our study. Whereas the study conducted by Tamanna Jannat, et al., had also concluded the same [9].

CONCLUSION

This study highlights the demographic characteristic and patterns of compounded medicines for skin disorders in the age group of 18-27. The findings concluded that, female patients were more affected by skin disease (54%). Eczema and Urticaria are the most common complaint of the patient attending the OPD.

In outpatient department of dermatology from a tertiary care hospital, anti-fungal and steroids were the most commonly prescribed medicines.

The results obtained from the examined data and a study of the research are that skin illness is one of the primary health problems that has an impact on people's daily lives. The evaluation of drug use and quality of life would increase awareness of disorders and enhance quality of life. Therefore, such research ought to be conducted on an ongoing basis.

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