



RESEARCH ARTICLE

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Conflict of Interest: None Declared !

To Study Prescription Pattern of Corticosteroids in Skin OPD in Tertiary Care Teaching Hospital

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ABSTRACT

Background: The choice of specific corticosteroid is determined by various factors such as accuracy of diagnosis, age, socioeconomic status of the patients and personal experienced of the clinician. Drug therapy is considered to be a major component of patient's management in health care setting, including primary health care. Although the benefits gained by patient from pharmacological intervention are valuable.

Methods: Specific Desgined Quistionare based performa were desgined for the study

Results: Total 100 Prescription were analysed to judge the pattern of corticosteroid therapy. Maximum patients were male (52) . maximum patients were from age group 21-40 yr. The present study showed Betamethasone was prescribed in 55% of prescription. Methyl prednisolone in 22.5%, Betamethasone Valerate 8.33%, Chlobetasol Propionate 7.5% and Hydrocortisone 6.67% respectively . Average no. of drug prescribed were 2.95. Topical preparation of Corticosteroid was most common prescribed drug.

Conclusion: Our results provide some suggestion for professional groups for developing clinical guideline. In summary we have found that clinician mostly prescribed topical corticosteroids, which have high glucocorticoid potency and low minaralocorticoid potency. They rarely use injectable and oral preparation to avoid systemic side effect. Prescription by brand name was matter of concern.

Keywords: Corticosteriod Therapy, Prescribing Pattern, Deramatology

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1. INTRODUCTION

Drug utilization has been defined as the marketing, distribution, prescription and use of drug in a society with special emphasis on resulting medical and social consequences. Developing countries have limited funds available for health care and drug and it become very important to prescribe drug rationally so that the available funds can be utilized for treating a large number patient^(1,2,3).

Drug therapy is considered to be a major component of patient's management in health care setting, including primary health care. Although the benefits gained by patient from pharmacological intervention are valuable. The risks of drug per se and the consequences of inappropriate use cannot be overlooked, additionally the cost of medicine is a matter of great concern in both developing and industrial countries^(4,5,6). In developing countries health insurance cover only major illness and dose not cover cost of drug therapy on a continuous basis (few public sector organization cover the cost of drug therapy on monthly basis).

Hence setting standard and assessing the quality of care through performance review should become a part of everyday clinical practice. The study of prescribing pattern seek monitoring, evaluation and necessary modification in prescribing practice of prescribers to achieve rational and cost effective medical treatment. The choice of specific corticosteroid is determined by various factors such as accuracy of diagnosis, age, socioeconomic status of the patients, personal experienced of the clinician etc. due to these factors it is difficult to make any specific recommendation and hence drug utilization study on continuous basis are essential to provide the clinician an appropriately to review and make appropriate revision in the management of their patients. This study is an effort made in this direction^(7,8,9).

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AIM

To study the prescription pattern of corticosteroids in skin OPD.

OBJECTIVE:

1. To find out average number of drugs per encounter.

2. To find out average number of corticosteroid per encounter.
3. To find out percentage of corticosteroids encounters with injection, oral, topical route.

2. MATERIALS AND METHODS

1. Ethical Clearance has been taken from Institutional ethics committee
2. Study design: A cross sectional observational Study
3. Place of Study: Department of Dermatology, MGM Medical College, Kamothe, Navi Mumbai
4. Sample size: 100 patients fulfilling inclusion and exclusion criteria
5. Duration of the study: March 2009 to Dec 2009
6. Specific designed Performa were used to collect Data from the prescription of patients in dermatology OPD. The Performa included demographic profile of the patients like patients name, age, sex, registration no and Diagnosis of patient's, History & clinical examination and complete drug treatment. The Performa also included the drug Corticosteroid prescribed by Generic or Brand name, according by WHO drug indicators.

Indicators included

- I. Average number of drugs per encounter
- II. Average number of corticosteroids per encounter
- III. Percentage of corticosteroids prescribed by generic name
- IV. To find out percentage of corticosteroids encounters

• Inclusion criteria:

1. Adult age 12 - 60 years both male and female.
2. Skin condition required corticosteroids therapy (mainly eczematous patients)

• Exclusion criteria:

1. Pregnant women.
2. Lactating women.
3. Immunocompromised patients e.g. HIV patients.
4. Hypertensive patient.

3. RESULTS:

In all total 100 patients were visited in the skin and Skin OPD in MGM MEDICAL COLLEGE and HOSPITAL during the study period. Among them 52 patients were male and 48 were female. Maximum Patients were belongs to age group 21-40. The total numbers of 100 prescriptions having 295 drugs were prescribed. The average number of drugs prescribed was 2.95 drugs/prescription. The average number of corticosteroids prescribed was 1.20 corticosteroids/prescription. **(Table 1)**

Prescribing Patterns of Corticosteroid: The present study showed Betamethasone was prescribed in 55% of prescription. Methyl prednisolone in 22.5%,

Betamethasone Valerate 8.33%, Chlobetasol Propionate 7.5% and Hydrocortisone 6.67% respectively. (Fig 1)

Route of drug administration: Topical preparation corticosteroid was prescribed in 72 % of patients prescription, 20% of the prescription showed both Topical and Oral preparation, Oral preparation were seen in 8% of the prescription. (Fig 2)

Average number of drugs per prescription in an important index of prescription audit. It is preferable to keep the average no. of drugs as low as possible since higher figure always lead to increase risk of drug interaction, development of drug resistance and increase hospital cost. In our study 86 % of patients received more than 3 drug per prescription (Fig 3)

It is important that the drug should be prescribed in their generic name to avoid confusion and minimum cost. In study no one drug were prescribed by generic name.

SN	Particular	Results
1	Total sample	100
2.	Male Patients	52
3.	Female Patiens	48
4.	Age group(yr)	
	>20	10
	21-40	58
	41-60	25
	>60	7
5	Total drug prescribed	295
6	Average no. of drug prescribed	2.95

Table 1: Demographic Data of Patients

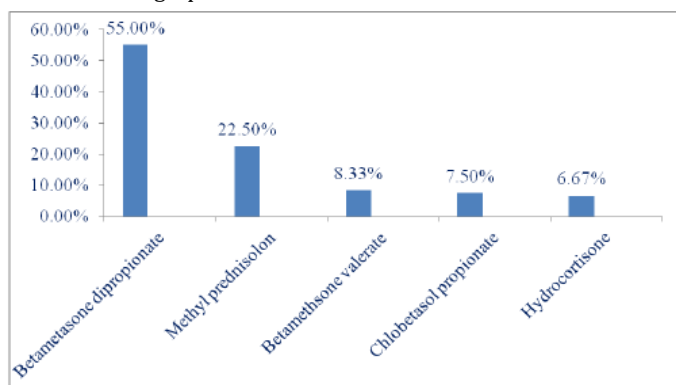


Fig 1: Pattern of Corticosteroid Prescribed

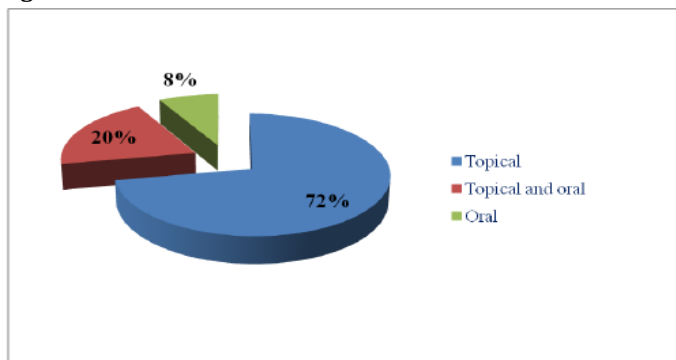


Fig 2: Route of Corticosteriod Prescribed

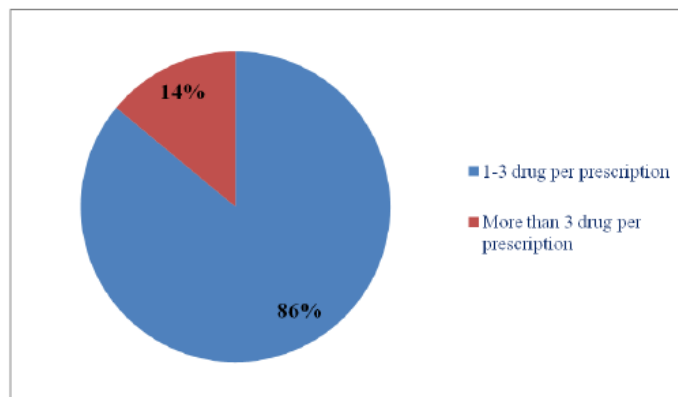


Fig 3: Number of drug per prescription

4. DISCUSSION

The present study attempts mainly to assess the general pattern of how corticosteroids are used in the eczematous condition in skin OPD rather than attempting to judge individual prescription as appropriate or inappropriate. This study included 100 patients attending the skin and STD OPD in MGM Medical College and Hospital.

The present study concluded that Betamethasone was prescribed in 55% of prescription. Methyl prednisolone in 22.5%, Betamethasone Valerate 8.33%, Chlobetasol Propionate 7.5% and Hydrocortisone 6.67% respectively. Topical preparation corticosteroid was prescribed in 72 % of patients prescription, 20% of the prescription showed both Topical and Oral preparation, Oral preparation were seen in 8% of the prescription. . In our study 86 % of patients received more than 3 drug per prescription.

The study conducted by Sarkar C et al¹⁰ July 2000 to June 2001 in Manipal Teaching Hospital, Nepal had 292 prescriptions The average number of drugs prescribed was 2.42 drugs/prescription. The total numbers of 100 prescriptions having 120 corticosteroid were prescribed. The average numbers of corticosteroids prescribed were 1.20 corticosteroids/prescription. The total number of patients prescriptions having Betamethsone Dipropionate was 65, Methyl Prednisolon 26, Betamethsone Valerate 10, Chlobetasole Propionate 9, Hydrocortisone 7. Which resembles the present study. The study conducted by the Fleischer et al¹¹ in 1999 Betamethsone Dipropionate was the most commonly used steroid. The study conducted by the Al -Dhalimi MA and Aljwahiry N¹² in 2006 Betamethsone Dipropionate most was the commonly prescribed by the family physician. They had analysed 802 prescriptions, 2458 medications prescribed out of that 616 were topical steroids.

No corticosteroid was given by injection. Seventy two prescriptions contained topical application of steroids. Twenty prescription contained both topical and oral steroids while eight prescriptions contained steroids by oral route only.

SUMMARY AND CONCLUSION

In the study we concluded from the 100 prescriptions of eczematous patients collected from the skin and STD OPD in MGM Medical College Kamothe, Navi Mumbai. All prescription contains corticosteroids. The prescriptions were followed WHO drug prescription indicators. The key to successful use of corticosteroids in eczematous condition was careful selection of cases and medication. Our results provide some suggestion for professional groups for developing clinical guideline. In summary we have found that clinician mostly prescribed topical corticosteroids, which have high glucocorticoid potency and low minaralocorticoid potency. They rarely use injectable and oral preparation to avoid systemic side effect. Prescription by brand name was matter of concern.

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