

# Clinical audit on knowledge, practice and common mistakes in drug usage among psoriasis patients attending Dermatology Clinic at National Hospital Kandy

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## Abstract

Psoriasis is a chronic disease with several relapses which respond poorly in certain situations. Patients' compliance and knowledge is poor regarding disease and treatment methods. Identification and correction of the defects in patient education and monitoring is very important in management of a disease like psoriasis.

We have studied the knowledge, practice and common mistakes in drug usage among 30 with psoriasis patients which showed a few mistakes which may have been prevented with prior planning. Patient information leaflet for psoriasis patients have been prepared to improve adherence and compliance of patients to the available treatment modalities. This will reduce unwanted side effects and complication related to the drug usage. Monitoring charts will facilitate clinicians' ability to detect complications and drug side effects early.

## Introduction

Psoriasis is chronically relapsing inflammatory disease, which need introduction of many systemic and topical medications. Patients' compliance is poor due to the natural course of the disease as well as the inadequate response to the treatment. We commonly observe a significant amount of mismanagement of these patients due to lack of communication and poor understanding capacity of the patients. Identification and planning to minimize those defects would be much beneficial in managing a disease like psoriasis.

## Method and materials

We randomly selected 30 patients with chronic plaque psoriasis, attending the Dermatology Clinic, National Hospital, Kandy for our observation. Direct inquiry of the patients and assessment of clinic

records were done by the principal investigator. A data collection sheet was utilized for the data entry.

## Results

We have observed several problems in prescribing the medications as well as some problems related to understanding of the patients. On one occasion a patient had taken methotrexate in four consecutive days, even though he was advised to take it weekly. He had ended up with methotrexate toxicity. Cumulative dose of methotrexate was not updated in most patients with no relevant investigations when reaching the cumulative dose targets.

Another patient was started on cyclosporine after stopping methotrexate due to hepatitis. Cyclosporine was stopped after achieving a good response, six months later gradual tailing off was done. However, patient had continued taking cyclosporine for more than a year without informing the treating Dermatologist.

This highlights lack of patient's knowledge on the disease and medication. They had poor knowledge about the duration and frequency of systemic and topical medication.

Adapting solutions to solve the problems identified in the audit.

We have prepared a patient information leaflet to improve the awareness and knowledge on medications and precautions to be taken when using them (Annex 1).

Drug monitoring charts have been designed to use for methotrexate, cyclosporine and acitretin (Annex 2).

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## **Annexure 1**

### **Patient information sheet**

Psoriasis is a disease which need continuous medical attention and it can be controlled to a near normal status with available treatment.

Continuous attendance to the skin clinic is very important even with minimal skin lesions.

Any change of the treatment or addition of any other medication should be informed to the treating consultant dermatologist or a medical officer.

### **Important things to know regarding topical application of a drug**

Do not use over the counter creams or applications without consultation of the treating consultant dermatologist or the medical officer.

Abrupt cessation of the drugs should not be done.

Steroid applications should be guided with medical advice. Potent steroid application (eg:Clobetazole) without medical advice can cause more harm.

Facial application of calcipotriol containing creams is not recommended<sup>1</sup>.

Any discomfort or irritation with topical application should be informed.

### **Important things to know regarding methotrexate<sup>2</sup>**

It is a very effective drug to control CPP.

Continuous adherent to the recommended schedule is mandatory.

Abstinence from consumption of alcohol is a must.

This drug is given as weekly administration (not for daily administration).

Cumulative dose to be calculated and should be noted when it reaches 3 to 3.5 g.

Ulceration of a plaque or any change of the general condition should be informed.

Family planning to be discussed prior to the treatment.

### **Important things to know regarding cyclosporin<sup>3</sup>**

This drug is given for daily administration.

Frequent blood pressure monitoring is mandatory during and few months after treatment.

It should not be taken for more than three to six months period at one session without medical advice.

It will be prescribed to you in a rotational basis with other treatment.

### **Important things to know regarding acitretin<sup>4</sup>**

This drug is given for daily administration.

Pretreatment evaluation for blood lipid levels and regular monitoring of lipid profile would be arranged.

Need to use a contraception method for four weeks before, during treatment and for at least three years after cessation of the drug.

Should avoid Vitamin A containing medications during the treatment.

### **Important things to know regarding phototherapy**

Photo-sensitivity or sun burn episodes in the past or during treatment to be informed.

Eye protection is mandatory during PUVA treatment.

**Important things to know regarding biologics**

Strict adherent to the treatment schedule is a must to avoid treatment failure.

Previous history of tuberculosis or neurological disease to be informed prior to treatment.

Should consult the physician before planning pregnancy.

Avoid live vaccines<sup>5</sup> (Polio, Rubella, Yellow fever).

**References**

1. Food and Drug Administration report of calcipotriol.
2. Warren RB, Weatherhead SC, Smith CH, *et al.* British Association of Dermatologists’ guidelines for the safe and effective prescribing of methotrexate for skin disease 2016. *British Journal of Dermatology* 2016; **175**: 23-44.
3. British Association of Dermatologists’ guidelines for the safe and effective prescribing of cyclosporin June 2019.
4. British Association of Dermatologists’ guidelines for the safe and effective prescribing of acitretin January 2017.
5. British Association of Dermatologists-Patient information leaflet April 2016.

**Annexure 2**

**Monitoring charts**

**Methotrexate**

Name .....

Age .....

Contact details.....

Indication for methotrexate .....

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Starting date .....

**Contraindications**

Pregnancy/lactation ..... Previous hypersensitivity..... Heavy alcohol consumption .....

Previous liver disease.....contraception

**Pre and post treatment investigations**

Date	WBC	HB	PLT	S.Cr	SGOT/SGPT
2 weeks					
6 weeks					

UFR..... ESR..... Hepatitis B & C..... Chest Xray..... Mantoux test..... USS.....

**Annexure 2 (Contd).**

JAN	FEB	MAR	APRIL	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Yearly cumulative dose
Y 1 - 2.5mg												
Y1 - 5mg												
Y1 - 7.5mg												
Y1 - 10mg												
Y1 - 15mg												
Y1 - 20mg												
Y2 - 2.5mg												
Y2 - 5mg												
Y2 - 7.5mg												
Y2 - 10mg												
Y2 - 12.5mg												
Y2 - 15mg												
Y2 - 20mg												
Y2 - 25mg												

**Cyclosporine**

Name .....

Age.....

Starting Date.....

Dyslipidaemia ..... Hypertension..... Chronic kidney disease .....

Wbc..... Hb..... Plt..... S cr.....

Lipid profile.....

1 M	2M	3M	4M	5M	6M	7M	8M	9M	10M	11M	12M

**Annexure 2 (Contd).**

**Acitretin**

Name.....

Age.....

Starting date.....

Contraception method.....

Dyslipidaemia..... Hypertension..... Chronic kidney disease .....

Wbc..... Hb.....Plt..... S cr.....

Lipid profile.....