

Appropriate Use Of Drug In Skin Disease Patients At Delima Pharmacy, Tegal District

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ABSTRACT

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Skin disease is one of the most common health problems in society and is a disease that is still very dominant and a public health problem in Indonesia. Treatment of skin diseases depends on the type of cause, so the accuracy of drug use is critical to prevent therapy failure in patients. Therefore, in the proper and rational use of drugs, it is necessary to carry out various activities to guarantee quality, one of which is the prescribing of drug use. The purpose of this study was to analyze the pattern of drug use in skin patients at Delima Pharmacy in terms of patient characteristics, patient diagnoses, and drug treatment received by patients. The research method uses descriptive analysis with qualitative and quantitative approaches. The research was conducted in May 2023. The population in this study was 990 sheets in March 2023 at Delima Pharmacy. The sample used in this study was 91 prescription sheets by the Slovin method, and the selection was made using the purposive sampling method, which met the inclusion and exclusion criteria. Furthermore, the interview method was carried out with the pharmacist in charge of the pharmacy and pharmaceutical technical staff working at the Delima Pharmacy location to explore more about drug use in patients using skin disease drugs at the Pomegranate pharmacy by providing drugs based on the diagnosis given by the doctor. The classification of drugs is based on therapeutic class, namely antibiotics, antihistamines, antifungals, corticosteroids, anti-inflammatories, and vitamins. Preparations used in the treatment are orally and topically. The most extensive use is topical, with an anti-inflammatory therapy class of 21.94%.

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1. INTRODUCTION

Skin disease is one of the health problems that commonly occur in society and is one of the diseases that is still very dominant and is a public health problem in Indonesia[1][2]. Several types of skin diseases can cause symptoms such as itching, redness, and inflammation and become a medical condition that affects the skin, hair, and nails. Skin diseases can vary in severity and symptoms, ranging from mild, such as a rash or redness, to severe, such as skin cancer[3][4]. Skin disease is a disorder caused by microorganisms that attack the body or allergic reactions due to exogenous or endogenous factors[5]. According to the Global Burden of Disease, skin and subcutaneous tissue diseases ranked ninth in 2017, with an increase from 1990 to 2017 of 40.2%. Epidemiological studies on the prevalence of community-based skin diseases in developing countries report that around 20 – 80% of skin diseases are often found in developing countries, including Indonesia [6]. Treatment for skin diseases needs to be explicitly done, depending on the type of case.

The use of drugs in patients with skin diseases can vary depending on the type of skin disease suffered[7][8]. Drugs commonly used for skin diseases are corticosteroids, antibiotics, antihistamines, antifungals, vitamin A, and non-steroidal anti-inflammatory drugs[9]. Often, people can independently treat minor skin diseases, but this also needs to be considered for severe skin problems or illnesses. People should seek treatment from a dermatologist to reduce unwanted side effects[10].

Appropriate Use Of Drug In Skin Disease Patients At Delima Pharmacy, Tegal District. Sari Prabandari, et.al

In terms of treating skin diseases, the role of a pharmacist is also huge in terms of providing education regarding how to use medicines for skin diseases appropriately and correctly [11][12]. This, of course, cannot be separated from the fact that the type of skin disease must be known first so that it can be treated correctly. Accurate use of drugs is essential to prevent therapy failure in patients. Therefore, in the correct and rational use of medicines, it is necessary to carry out various activities that guarantee quality, one of which is prescribing the use of medicines by looking at several aspects such as the right patient, the correct indication, the right drug, the correct dose, and others[13].

Patients with skin diseases can receive treatment at health facilities such as hospitals, clinics and pharmacies that provide specialist dermatologist practice services [12], one of which is the Delima Pharmacy. Delima Pharmacy is one of the pharmacies in the Tegal district and provides treatment services from a specialist in Genital Skin. Based on initial observations in the field by researchers, patients at the Delima Pharmacy had very diverse diagnoses of skin diseases, and the type of treatment they received also varied depending on the type of cause of the disease. There are cases of patients who come to the Pomegranate pharmacy with skin wounds that are increasingly spreading due to the wrong medication given because the patient is self-medicating using medicine at the shop. This is certainly an exciting thing for researchers to conduct research regarding the appropriate use of medicines in patients with skin diseases at the Delima Pharmacy. Of course, this can also be seen in previous research regarding the use of medication for skin diseases, referring to several types of medication that need to be given according to the cause of the skin disease[14]

2. METHOD

This research uses a descriptive method with a qualitative and quantitative approach [15], which is carried out by collecting data prospectively (interviews with pharmacists in charge of pharmacies) and retrospectively (looking at prescription sheets). The results of the research are presented narratively. This design and approach aims to look at the picture that occurs in certain conditions. This research took place at the Delima Pharmacy which is located in the Jalan Delima Slawi area, Tegal Regency in May 2023. The population in this study were prescription sheets at the Delima Pharmacy in March 2023 with a total of 990 prescriptions. Samples were taken using the Slovin formula, with the number of samples calculated with Slovin's formula:

$$\frac{N}{(1+N.(e)^2)}$$

So the calculation is as follows:

$$\begin{aligned} n &= 990 \\ &= (1 + 990 \cdot (0.1)^2) \\ n &= 90.8 = 91 \text{ recipes} \end{aligned}$$

A variable is something that is used as a characteristic, trait or measure that is owned or obtained by a research unit regarding a certain concept of understanding. The variable studied was an analysis of drug use patterns in skin disease patients at the Delima Pharmacy, Tegal Regency. This research was conducted using secondary data form by observing patient prescription sheets. Data obtained from secondary data collectors are:

1. Data form to determine patient characteristics. This secondary data form includes: gender, age.
2. Data form for menCollect data from the prescription sheet to find out the drug therapy given to the patient with a diagnosis of skin disease.

Primary data was obtained by conducting interviews with the Pharmacist in Charge at the Delima Pharmacy.

3. RESULTS AND DISCUSSION

Skin disease, one of the diseases that is still very dominant and is a public health problem in Indonesia, is caused by infestation from bacteria, viruses, fungi, parasites or allergic reactions. Skin diseases can be treated in various ways, including oral, topical, systemic and/or intralesional routes.

Appropriate Use Of Drug In Skin Disease Patients At Delima Pharmacy, Tegal District. Sari Prabandari, et.al

Sample Characteristics

The sample in this study was 30 samples from 49 medical record data of pediatric patients with seizures who were hospitalized in October - December 2022. Characteristics included gender and age, patient's weight, and diagnosis of comorbidities in pediatric febrile seizures in inpatient installations RSIA Pala Raya.

Table 1. Demographic characteristics of skin disease patients at the Delima Pharmacy, Tegal Regency in March 2023

NO	Demographic Characteristics	Number of Patients	Percentage
A	Gender		
	Man	37	40.66%
	Woman	54	59.34%
	Amount	91	100%
B	Age		
	1. 0-11 years	23	25.27
	2. 12-16 years old	11	12.09
	3. 17-25 years old	10	10.99
	4. 26-35 years old	12	13.19
	5. 36-45 years old	5	5.49
	6. 46-55 years old	13	14.29
	7. 56-65 years old	11	12.09
	8. >65 years	6	6.59
	Amount	91	100%

In Table 1, regarding the demographic characteristics of skin disease patients for gender, there are 37 male patients (40.66%), while there are 54 female patients (59.34%). This shows that women are more dominantly affected by skin diseases. The results are not in line with research conducted by Gunawan in 2012, which showed that men were more likely to suffer from skin diseases. A total of 54 patients with skin diseases were more female patients (59.34%) than male patients (40.66%). Regarding age, the majority were 0-11 years old (25.27%). Other research shows that the largest age group that suffers from skin disease, in this case contact dermatitis, is the age group 45 - 64 years (Fani, 2016).

Table 2. Table 2. Distribution of Clinical Characteristics of Skin Disease Patients at the Delima Pharmacy

Clinical Manifestations	Number of Patients	(%)
Red rash	45	49.45
Very itchy	38	41.76
Painful	8	8.79
Number of Patients	91	100%

Diagnosis	Number of Patients	(%)
Psoriasis Vulgaris	4	4.39
Seborrheic Dermatitis	10	10.99
Static Dermatitis	8	8.79
Atopic Dermatitis	18	19.79
Contact dermatitis	9	9.89
Scabies	11	12.08
Neurodermatitis	5	5.49
Shingles	8	8.79
Intertriginous candidiasis	5	5.49
Tinea corporis	2	2.20
Tinea cruris	3	3.30
Tinea pedis	2	2.20

Diagnosis	Number of Patients	(%)
Tinea marus	3	3.30
Tinea versicolor	3	3.30
Amount	91	100%

In Table 2, regarding the clinical characteristics of skin disease patients, out of 91 skin disease patients, 100% (45 patients) experienced excessive rashes or skin abnormalities, 49.45%, 38 patients experienced very itchy, and 41.76%. Eight patients (8.79%) also experienced pain, and the patients who felt pain were shingles patients. The rash that is often found in skin disease sufferers is erythema, which occurs in the majority of skin disease patients. In scabies patients, there are vesicles, and macules and scales are also found in psoriasis versicolor patients. The most common diagnoses were 18 patients (19.79%) suffering from atopic dermatitis, more commonly known as eczema, 10.99% (10 patients) suffering from seborrheic dermatitis, 8.79% (8 patients) suffering from static dermatitis, 9 patients suffering from dermatitis contact which is usually due to allergies comes into contact with external contacts. There were 11 scabies patients (12.08%) and 5 neurodermatitis patients (5.49%). There are also many herpes patients, namely 8 patients with a percentage of 8.79%. In cases caused by fungi, namely with a diagnosis of tinea, the average patient is 3 or 2 patients, divided into tinea cruris as much as 3.30%, tinea corporis 2.20%, tinea pedis 2.20%, tinea marus 3.30%, tinea versicolor 3.30%. Cases of candidiasis were 5 patients (5.49%).

Based on Table 2 above, there are many diagnoses with cases of atopic dermatitis, namely cases of eczema in pediatric patients. This, of course, should be a concern for the public, especially parents, because of the causes of atopic dermatitis in babies and children, one of which is high humidity in baby diapers and prickly heat. Excess hormonal changes due to the child's growth can also occur due to allergies to temperature or surrounding conditions. The second most common skin disease is scabies, usually caused by a mite called *Sarcoptes scabiei*. Scabies, or what people often call scabies, also often occur in children.

Table 3. Drug Use Profile of Patients with Skin Diseases at the Delima Pharmacy in March 2023

Route of Administration	Therapy Class	Type of Medicine	Freq	(%)
Orally	Antibiotics	Amoxan syr, claneksi cap, lapimox syr, doxicor cap, clavamox, meixam cap, sanprima syr, zitromed cap	42	10.71
	Antihistamines	CTM tab, Bestalin Syr, Mexon Tab, Histapan Tab, Polacel Tab, Xyzal Cap, Lameson Tab, Tiriz Syr, Cortamine Syr, Loratadine	83	21.17
	Antifungal	Fungasol tab, flucoral tab, zoralin	12	3.06
	Corticosteroids	Methyl prednisolone	12	3.06
	Vitamin	Curbexon syr, neurobion, axtan cap	22	5.62
	Nonsteroidal anti-inflammatory	Nutriflam, laflanac tab, cortidex syr, burnazin cr	25	6.38
Topical	Antibiotics	Bactroderm, Digena, Nucef, Mediclin	24	6.12
	Antihistamines	Andantol, hydrortison	17	4.34
	Antifungal	Itraconazole, canesten, zoralin	32	8.16
	Corticosteroids	Corsaderm cr, elopro	18	4.59
	Nonsteroidal anti-inflammatory	Inerson cr, kloderma, dermovate cr, diprosal, ketomed, esperson cr, diprosone cr, lanakeloid	86	21.94

Variation in Amount of Drug	Number of Patients	(%)
1-3	25	27.47
4-6	66	72.53
Dosage Form	Freq	(%)
Tablet	78	39.39
Ointment	45	22.73
Cream	63	31.82
Pulvis	4	2.02
Shampoo	8	4.04
	198	

In Table 3 regarding the characteristics of the drug use profile of patients with skin diseases, for variations in the number of drugs given to patients, of the 91 patients, 72.53% (66 patients) were given 4 - 6 drugs and 27.47% (25 patients) were given 1 - 3 drugs. The number of medications given varied because of the 91 patients; there were various diagnoses of skin diseases with different clinical manifestations, so the amount of medication given was also more varied. In the drug therapy class for skin disease patients, 91 skin disease patients were found to use two administration routes, namely topical and oral. Topical administration with an anti-inflammatory therapy class of 21.94% has a large percentage of its use, followed by topical antibiotics at 6.12%. Meanwhile, the most widely used oral administration is in the antihistamine therapy class, amounting to 21.17%. The results showed that topical anti-inflammatories and oral antihistamines were the most widely used. Topical anti-inflammatory corticosteroids are the primary therapy for most inflammatory dermatoses. Corticosteroids also have broad indications for use, namely anti-inflammatory, anti-allergic, anti-pruritic, anti-mitotic and vasoconstrictive. Meanwhile, antihistamines aim to reduce the itching due to the allergic process. Antihistamines can prevent urticaria and are used to treat urticaria skin rashes, itching, insect bites and stings, and drug allergies. The results obtained are also by Fani's (2015) research, which states that the most common therapies for contact dermatitis are corticosteroids and antihistamines. The choice for using oral antihistamines here is to use Ctm tab, bestalin syr, mexon tab, histapan tab, polacel tab, xyzal cap, lameson tab, tiriz syr, cortamine syr, loratadine tab. The average use of oral medicines is in the form of tablets and syrups. Considering that the most significant number of patients with skin diseases are children, doctors often prescribe medicines in syrup form to make it easier for patients to take the medicine. As for the use of antihistamines, as described above, it is essential for cases of dermatitis. It can be seen that the mechanism of action is as a histamine H1 receptor antagonist, which binds to the H1 receptor without activating the receptor, which prevents the binding and action of histamine (Siswandono & Soekardjo, 2008). The oral antibiotics given are Amoxan syr, clanks cap, lapimox syr, toxic or cap, clavamox, medical cap, sanprima syr, and zitromed cap. Antibiotics are prescribed for skin diseases if the patient's wound is infected or caused by bacteria. Antibiotics must be emphasized explicitly regarding how long they must be used. In topical preparations, topical antibiotics are often used for skin wounds where lesions are visible.

When prescribing medicines given by doctors, the use of each medicine varies. In the research, patients, on average, received drugs with a composition of 1-3 drugs, and it can be seen in the research data that the number was 27.47%, while patients who received 4-6 drugs were more dominant with a percentage of 72.53%. The number of drugs each patient uses varies depending on the case and, of course, the doctor's diagnosis. In the case of skin diseases, on average, each other's drugs have mutually supportive effects, so maximum treatment is needed Fani (2015). So, in treating skin diseases at the Delima pharmacy, it can be said that the indications and usage are correct because the Delima pharmacy itself serves medicines based on disease indications that a skin and venereal specialist doctor has diagnosed.

There are five dosage forms for skin disease patients given to patients according to their needs. The dosage forms used were 39.39% tablets, 22.73% ointment, 31.82% cream, 2.02% pelvis, and 4.04% shampoo. This shows that the dosage form most commonly given is tablets, but if you add up the dosage forms of ointment, cream, pulvis and shampoo, then most of it is given to patients in topical form. Of course, this is the right thing to do because, based on the guidelines for treating skin diseases, the most appropriate dosage form for treating skin diseases is topical or semi-solid. Topical medication is, of course, given by applying it directly to the skin that has an infection, rash or wound so that the hope is that the medication can work directly on the tissue or skin that is experiencing problems.

4. CONCLUSION

The use of medicine for skin diseases, Pomegranate Pharmacy, provides medicine based on the diagnosis given by the doctor so that it can be said to be an appropriate indication for treatment. The classification of drugs based on therapeutic class is antibiotics, antihistamines, antifungals, corticosteroids, anti-inflammatories, and vitamins. The preparations used in the treatment are oral and topical. The most extensive use is topical, with an anti-inflammatory therapy class of 21.94%.

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