

Patterns of Admissions to a Referral Skin Hospital in Iran

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Abstract

Background: Inpatient therapy in dermatology offers a number of advantages in several ways i.e. careful monitoring of patients' conditions, improvement of their skin lesions under the supervision of trained staff, absence of domestic pressure and increasing the quality of patients' life index. The objective of this study was to describe the patterns of admission for patients with dermatological diseases in Iran

Methods: In this retrospective study, data were collected by completing a questionnaire for 481 patients admitted to Razi skin hospital in Tehran during 18 months.

Results: The mean age of admitted patients was 44.03 years \pm 19.15. Bullous diseases (39.92%), psoriasis (20.79%), dermatitis (9.56%) and neoplasms (6.65%) were found as the most common reasons for admission. The mean duration of hospitalization was 22.79 days and neoplasms had the highest mean hospitalization period.

Conclusions: Patient's admission patterns differ from country to country and there should be prioritizing plans to reach better results. (*Iran J Dermatol* 2008;11: 156-158)

Keywords: inpatient therapy, patient admission, Iran

Introduction

Few skin diseases are life-threatening, but some cause major disability and many result in a loss of productivity and an impaired quality of life.¹

Inpatient dermatology is a subspecialty of dermatology dedicated to the care of most complicated or severe dermatological patients.²

Although dermatology is predominantly an outpatient-based specialty, subsets of patients exist for whom inpatient care is essential.³

The proportion of inpatient vs. outpatient care in dermatology is probably determined by many factors including nation-wide ones such as 'traditional way of practice' or economic aspects, and individual preferences of dermatologists and patients.² Economic pressures on health expenditure demand that costs be controlled, the trend being towards fewer and shorter hospital admissions.¹

A study conducted by Krinser et al. showed that changes in public health system led to significant changes in dermatology. They claimed that although a great number of patients were visited by dermatologists, few of them were admitted to hospitals.⁴

It is a fact that dermatology in-patient units are frequently threatened with reduction or closure⁵, but inpatient therapy remains an important and essential option of dermatologic treatment.³ For all patients, including this subset, in addition to the improvement in the skin disease, improvement in the patients' quality of life, and levels of stress and anxiety are important outcomes.³

The characteristics of dermatology inpatients are not yet well known. The objective of our study was to assess the pattern of admission for patients with dermatological diseases in Iran, and comparing it with previous reports in other countries.

Patients and Methods

A questionnaire was completed retrospectively by a physician for all the patients who were admitted to Razi hospital in Tehran from March 2003 to September 2004.

The questionnaire consisted of demographics of the patients, history and number of admissions for non-dermatological diseases, number of admissions and duration of hospitalizations for dermatological diseases, reason for the recent admission and final

diagnosis. Data was analyzed using SPSS statistical software, version 12.

Results

Data was obtained from 481 patients who had been admitted during 18 months. The mean age of patients was 44.03 years \pm 19.15 (ranging from 2 to 98 years). The age range of the study population that had the most frequent admissions was 41-50 years (20%) followed by 21-30 years (16.5%).

Two hundred and seventy one patients (56.3%) of 481 subjects were female with a mean age of 43.66 \pm 18.831 years and 210 (43.6%) were male with a mean age of 44.5 \pm 19.589 years.

Two hundred and thirty patients (47, 2%) had a history of non-dermatological diseases among which endocrinopathies (31.6%) and cardiovascular diseases (22.94%) were the most frequent. Of those, one hundred and three patients had a history of significant problems contributing to admission. Surgical problems (48.54%) were the most frequent reasons.

The most common diagnosis on admission was bullous diseases (39.92%) followed by psoriasis (20.79%), dermatitis (9.56%) and neoplasms (6.65%). Table 1 demonstrates the frequency of patients' diagnosis completely.

Table 1: Characteristics of admitted patients

Diagnosis	Number of patients (%)	Mean hospitalization period in days (Rank)
Bullous disease	192 (39.92)	25.45 (4)
Psoriasis	100 (20.79)	25.29 (3)
Dermatitis	46 (9.56)	14.74 (8)
Neoplasm	32 (6.65)	30.28 (1)
Drug reaction	28 (5.82)	10.68 (10)
Connective tissue disease	21 (4.37)	13.57 (9)
Infectious disease	18 (3.74)	26.28 (2)
Vasculitis	7 (1.46)	18.43 (7)
Urticaria	3 (0.62)	3.33 (12)
Pruritus	2 (0.42)	9.50 (11)
Leg ulcer	2 (0.42)	24.50 (5)
Others	30 (6.24)	21.10 (6)
Total	481 (100)	22.79

Table 2: Number of previous admissions

Number of admissions	Frequency (%)
0	1 (0.21)
1	353 (73.39)
2	93 (19.33)
3	29 (6.03)
4	4 (0.83)
5	1 (0.21)

The mean length of stay in the ward for the whole group, men, and women was 22.79 days \pm 15.56 (ranging from 1 to 90), 25.27 days \pm 17.72 and 20.86 days \pm 13.38, respectively. The mean hospitalization period for each disease is shown in table 1.

Except for 1 case, all patients had been previously admitted at least once because of their dermatological problems i.e. a group of 353 patients (73.39%) had a history of a prior admission (Table 2).

In addition, four hundred and forty two patients (91.9%) had the same reason for admission and final diagnosis.

Conclusion

This study is unique to Iran. As data originated from a single department with the same admission indications, our study has an acceptable internal validity. Nevertheless, its external validity remains arguable, mainly because the results were not compared with other hospitals.

Four hundred and eighty one patients entered the study. The mean age of patients was higher than that reported in a study by Jessop et al (34.1 years)¹ and lower than that presented by Helbling et al as the result of an audit of admissions in Greater Manchester.⁶

In our study, the most common reason for admission was bullous diseases, while they are the fourth reason for admission in US³ and one of the infrequent diseases in the field of inpatient therapy in Spain.² It can be explained by high frequency of these types of diseases in Iran or their severity which leads to admission. It may also be the result of the fact that Razi hospital is one of few Iranian referral dermatological centers which accept patients with blistering diseases nationwide.

Psoriasis, which is the second reason for admission in our country, is considered to be the most common disease that results in hospitalization in England, Scotland and USA.^{3, 5, 6}

Furthermore, in South Africa and Spain, it accounts for the second and third reason which leads to admission, respectively.^{1, 2}

We concluded that dermatitis was the third frequent diagnosis on admission, although it is reported to be the most common diagnosis in South Africa¹ and the second diagnosis in England.^{3, 6}

We found that thirty two patients (6.65%) were admitted for neoplasms, although in Spain, the related rate is higher². Perhaps the reason is that in Iran, surgeons deal with neoplasms more frequently than dermatologists.

It is noteworthy that leg ulcer was not a frequent diagnosis on admission in Iran; however, it is one of the most frequent reasons in England.^{5, 6}

The mean duration of admission in Iran was longer in comparison to those in England and USA.

Although there was not a significant difference between the mean age of women and men, the duration of admission was significantly longer for men than women.

In our study, neoplasms and infectious diseases accounted for the most inpatient days, although in Spain, longer admissions were for bullous diseases and decubitus ulcers.²

The mean duration of hospital stay is considerably longer than the NHS average for dermatology inpatients (mean 13.4, median 9 days). One explanation for the disparity is that due to low bed availability, we only admitted more complex cases which could not be managed elsewhere or by alternative means.⁶

There was a correlation between the reason for admission and final diagnosis (442 patients, 91.9%), but there were some exceptions especially for those who were admitted for dermatitis and finally were treated for psoriasis. We also had some vasculitis cases with the initial diagnosis of drug reactions as the reason for admission. There were psoriasis and seborrheic dermatitis cases with final diagnosis of mycosis fungoides as well.

To sum up, the pattern of admission for dermatological diseases varies from country to country and the characteristics of patients are not

well known in numerous countries. However, the pattern of admission in Iran differs from other countries; it is more similar to England and USA than Spain.

Additional studies are necessary to clarify the reasons of the mentioned differences, to assess the indications of admission and also to find out the readmission rate in a determined period of time.

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