

Role of JIPMER Proforma in Diabetic Foot Management

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ABSTRACT

Diabetes mellitus is a chronic disease which is a burden not only physically, but also socially and financially. One of the common presentations of a diabetic patient to the hospital is with diabetic foot infections. Various proformas are in use for the assessment of such patients. Guidelines are provided for effective management. We would like to give our experience of use of a proforma compiled by JIPMER plastic surgery department.

Keywords: Diabetes mellitus, Proforma, Diabetic foot infections

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INTRODUCTION

Diabetes mellitus is, the leading cause of mortality, morbidity in the world. The number of people with diabetes has risen from 108 million in 1980 to 422 million in 2014. The global prevalence of diabetes mellitus among adults over 18 years of age has risen from 4.7% in 1980 to 8.5% in 2014 [1]. Diabetic foot infections are the most common skeletal and soft-tissue infections in patients with diabetes. The estimated lifetime risk of a person with diabetes mellitus developing a foot ulcer is 15% to 25%, with an annual incidence of 3% to 10% [2].

Ascending infection in patients with diabetes will have grave consequences. Hence, complete assessment and prompt management are essential for reducing morbidity and mortality. The comprehensive assessment of diabetic foot infection is critical and important for appropriate treatment.

We have devised a proforma for patients with diabetic foot infections which will help in the complete assessment and treatment of these patients.

MATERIAL AND METHODS

The JIPMER diabetic foot proforma that has three components. Part A consists of history, clinical examination and investigations. After the complete assessment, based on the treatment planned template for consent for various procedures useful for a general surgeon and plastic and reconstructive surgeon is added in the proforma. Part B has the checklist to be followed by the surgeon on the day of the planned surgery. Part C has the information to be given in the discharge summary and follow-up [[Supplementary file](#)]. Five plastic surgery residents used the proforma, and their feedback was taken according to the feedback proforma (Table 1).

RESULTS

All the doctors recommend (Table 1) the proforma as a part of a regular assessment of the patient. They would also like to recommend the same to their colleagues.

DISCUSSION

Diabetes is a chronic disease. It occurs either when the pancreas does not produce enough insulin or when the body cannot effectively use the insulin; then it leads to hyperglycaemia. Uncontrolled diabetes mellitus will lead to hyperglycaemia for longer duration resulting in end-organ damage. Diabetic foot infections, which are infections of the soft tissue or bone below the malleoli, are a common clinical problem [3] leading to hospitalisation.

It needs a multidisciplinary approach from multiple specialists like a general surgeon, orthopaedic surgeon, plastic surgeon, endocrinologist, orthotics etc for the appropriate management and to prevent recurrent infections.

A task force was formed by the American diabetes association (ADA) to give guidelines for the assessment of risk and the appropriate examination of diabetic foot infection patients [4]. Diabetology associations from various countries including USA, UK, Canada[5] have given guidelines that are followed in their regular clinical practice for the management and risk assessment. Most podiatrists use various charts and proformas to help in the assessment of the patients who present with foot infections and during follow-up,

However, there is no single proforma available to guide a physician or surgeon when a patient presents with a diabetic foot infection. We have tried to include all the problems encountered by a surgeon/plastic surgeon in diabetes foot management in our proforma for proper assessment and care.

Proforma based management helps not to miss any important finding or investigations. It also helps to maintain a checklist which can be a guide through the investigations and management. It also helps to keep track of the various treatment options and advice given at previous visits. However, it has to be used as a guide. It has to be individualised to each patient and the condition at which they present.

In government hospitals where there are various residents taking care of one patient, it helps to keep track of the stage of management.

Table 1. Reply to the feedback form

Question	Resident 1	Resident 2	Resident 3	Resident 4	Resident 5
Does proforma help in recording all findings	Yes	Yes	Yes	Yes	No
Does proforma help in follow up of patient	Yes	No	Yes	Yes	Yes
Do you find proforma useful for counselling the patient	No	Yes	Yes	Yes	Yes
Is the Consent of the proforma helpful	Yes	Yes	Yes	Yes	Yes
Do you think the proforma helps in medicolegal cases	Yes	Yes	Yes	Yes	Yes
Is the pre-operative checklist helpful	Yes	Yes	No	Yes	Yes
Will you recommend this proforma to other surgeons	Yes	Yes	Yes	Yes	Yes

Our proforma also gives the format of various consent forms, which can be individualised but has the advantage of forming a standard template. This may also help in medicolegal issues.

The checklist for the surgeon in the peri-operative period will ensure that all the standard protocols are followed, which helps both in effective patient care and streamlining of the support staff for increasing the efficiency.

It will help not only in the management of patients but also help in more easy access to information in case the patient needs to be referred to another centre. It also helps in maintaining a data bank for future analysis and publications.

CONCLUSION

We applied JIPMER diabetic proforma in our patients and has helped in better overall management of our patients. However, we feel that even though it gives a checklist of the management of a diabetic patient, it needs to be individualised to each patient. Further use in a larger number of patients is required to validate its utility.

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