

# National Orthopedic Registry in Malaysia – National Orthopedics Diabetic Hand and Foot Database (NODFD)

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## INTRODUCTION

Diabetes mellitus (DM) is a serious debilitating and deadly disease causing significant mortality and morbidity globally. The reported prevalence of DM in Malaysia was 14% in 2006 (NHMS 3). Other studies in the country similarly documented not only a high prevalence of the condition in Malaysia but also increasing prevalence over the years.

Even though there are multiple reports on prevalence of diabetic complications such as neuropathy, retinopathy and albuminuria, there however has been no published reports on the prevalence of diabetic foot/hand complications in Malaysia.

It is estimated that 15% to 20% of diabetic sufferer will be hospitalized with a foot complication at some point of time during the course of their disease and 12-24% of affected individuals with foot ulcers require amputation.

In view of the paucity of data in this area, the orthopedic surgeons in the Ministry of Health (ORTHO KKM) have decided to have a database (registry) on diabetic foot and hand complications. It is proposed that the database be known as the National Orthopedic Diabetic Foot Database (NODFD).

## OBJECTIVE

The objectives of the NODFD are:

1. Determine the prevalence of Diabetic foot/hand complications in the MOH orthopedic service.
2. Document the demographic factors associated with diabetic foot/hand complications including age, gender, ethnic, geographical location as well as socio-economic and educational level.
3. Study the factors affecting outcome of patients with diabetic foot/hand complications including control of diabetes, presence of co-morbid illness, surgical treatment and mortality.
4. Study the impact of patient education program and preventive measures in patients admitted with diabetic

foot/hand complications admitted to MOH orthopedic education, keep good records in the diabetic care booklet and maintain healthy lifestyle practices.

5. Facilitate improvements in the delivery of healthcare services and research in the area of diabetic foot care through the provision of relevant data from the database.

## Milestones in the development of NODFD

The steering committee for NODFD was set up in August 2007 and submitted its proposal for the application of a research grant to start the registry. The application was made through the Clinical Research Centre of Hospital Kuala Lumpur. The committee decided that the coordinating centre for the NODFD will be at the Department of Orthopedics, Hospital Raja perempuan Zainab II, Kota Bahru. A pilot study was carried out in December 2007 to validate the database. In February the design of the CRF, including its web based format, was finalized. The steering committee plans to roll out the web-based reporting application in June/July 2008. The NODFD will be registered with the National Medical Research Register (NMRR) and with all other registries/database a waiver from individual consent to participate in the database will be requested.

## Participating Centres

As an initial step, Departments of Orthopedics in all hospitals in MOH where Clinical Research Centres are available and also the Department of Orthopedics of Hospital Sultan Ismail, Johor Bahru will participate.

## CONCLUSION

The increasing prevalence of Diabetes mellitus with its attendant complications has posed medical as well as resource utilization challenges for the country. A major complication that impact on economic productivity of the affected individuals is diabetic foot/hand disease. There is presently limited data on the subject. A database called the National Orthopedic Diabetic Foot Database will be set up to fill the gap in data on the subject. The database is expected to be operational in June/July 2008.