



An Audit of Diabetes Control and Management (ADCM)

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INTRODUCTION

Diabetes is a chronic condition that is one of the major causes of illness, disability, and death in Malaysia. The reported prevalence First National Health and Morbidity Survey, NHMS of DM was 6.3% in 1986, 8.2% in 1996 (NHMS 2)2, and in 2006 14.9% (NHMS 3)3. WHO estimated that in 2030, Malaysia would have a total number of 2.48 million diabetes (prevalence of 10.8%), compared to 0.94 million in 2000 (An increase of 164%)1.

As for diabetes management, a study in 2001 amongst general practitioners in Peninsular Malaysia showed that the majority of patients were not well controlled and had a high prevalence of complications. Only 20% had A1c of < 7%, 12.3% had total cholesterol of < 4.8 mmol/L and 44.1% had systolic blood pressure of <140 mmHg. Neuropathy was the most common complication (30.1%), followed by background retinopathy (23.5%), albuminuria (22.9%) and microalbuminuria (20.4%)4. There is growing interest in a more systematic approach to managing patients with diabetes. This interest is due to a greater awareness of the large gap that exists in delivering care that can prevent or delay many of the complications of diabetes. Access to timely, accurate and well-organized electronic data will improve the quality of care for patients with diabetes.

OBJECTIVES

1. Determine the demographics of diabetic patients attending the MOH health clinics and hospital
2. Determine the diabetes sub-types and date of diagnosis
3. Determine diabetes control and clinical variables in the past one year
4. Determine diabetes management in term of pharmacological, non-pharmacological, concomitant and self monitoring.
5. Determine the diabetic complications workload in health clinics/hospitals
6. Determine the co-morbidities among diabetic patients
7. Stimulate and facilitate diabetic research activities using this database

MATERIALS AND METHODS

Study Design

A multi-center observational cohort study

Patient Selection

All patients 18 years and above with a confirmed diagnosis of diabetes mellitus at participating sites will be enrolled into the registry.

Duration of Study

The study is expected to start in middle 2008. Patients will be followed up according to the standard of care of each participating site.

Location of Study

Participating sites are from all government hospitals and all health clinics in the state of Negeri Sembilan and will later on be extended to other states in Malaysia. In future more centers are expected to participate.

Data Collection

- All new diabetes mellitus patients will be registered on attendance at participating sites as well as existing patients on follow up may also be included in the registry.
- All data on demographics, clinical information, complications, concomitant co-morbidity and management details will be abstracted from patients' medical records. A copy of the case report form is attached.
- The data will be stored on a web-based electronic case report form readily accessible to source data providers from the sites.

Data Analysis

The characteristics of the study sample will be described using numbers and percentages for categorical variables or means with their standard deviations for continuous variables. The descriptive statistical pertaining to clinical practice, other clinical feature, treatment and outcome would be analyzed.

CONCLUSION

There is a consensus that a database on Diabetes Mellitus in the country will be compiled and assessed with a view towards understanding the results of treatment as well as to benchmark quality of care to be on par with that of international standards. This database ought to fill the gaps in information that has long been perceived no matter challenging the actual establishment taken. Thus, we urge all parties concerned to lend their full cooperation and sincere support behind this worthwhile and undertaking.

RESULTS

Table 1. Number of patients notified by SDP

SDP	# of Patient	Percentage (%)
Negeri Sembilan	3446	75.82
Gombak District	1099	24.18
Grand Total	4545	100.00%

Table 2. Total Diabetes Patient Report to ADCM by Type

Type of diabetes	# of Patient	Percentage (%)
Type 1	57	1.25
Type 2	4366	96.06
Unknown	27	0.59
Others	8	0.18
Missing	87	1.92
Grand Total	4545	100.00%

Table 3. Total Diabetes Patients Reported to ADCM by Sex

Sex	# of Patient	Percentage (%)
Male	1877	41.29
Female	2668	58.71
Total	4545	100.00%

Table 4. Total Diabetes Patients Reported to ADCM by Ethnic Group

Ethnic Group	Total	
	N	%
Malay	2722	59.89
Chinese	1096	24.11
Indian	685	15.07
Others	42	0.93
Total	4545	100.0

REFERENCES

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