
A household drug utilization survey among diabetics in rural Malaysia

Dear Sir,

It is estimated that 1.6 million Malaysians above the age 30 years are suffering from type 2 diabetes mellitus.^[1] The prevalence of diabetes mellitus has showed a drastic increase of 80% over a period of 10 years, from 8.3% in 1996 to 14.9% in 2006 for the same age group.^[2] According to another estimate, one-third of those who have type 2 diabetes mellitus in Malaysia are unaware about their condition.^[2] This is a very alarming situation and it is not only important to create awareness among the people about the disease, but also it is necessary to formulate and provide clear and concise guidelines to all healthcare providers on the current practice in the management of type 2 diabetes mellitus. This study was carried out to assess the community drug utilization pattern among type 2 diabetic patients in one of the selected villages in rural Malaysia. This village was selected for the appraisal of the health status of its residents and also due to proximity to our institution.

A 3-day community-based, antidiabetic drug utilization survey was undertaken as a part of a larger community diagnosis survey, which was conducted to assess the disease pattern of people living in village Hilir, State of Kedah, Malaysia in November 2008. A total of 390 people belonging to 84 households were interviewed by using a predesigned interview method. The respondents were asked to show the drugs available in their house to the investigators as a part of surveillance and medical care received by diabetic individuals. The study was approved by the Institutional Ethics Committee and confidentiality of the subjects was maintained.

Thirty-eight (9.74%) individuals suffering from type 2 diabetes mellitus were identified and interviewed using a specially designed questionnaire to assess their antidiabetic drug utilization patterns. Twenty (52.6%) diabetic patients were in between 30 and 50 years of age. The remaining 18 patients (47.4%) were above the age group of 50. Out of the 38 diabetic patients, 22 patients were male and 16 were female. Eleven patients had body mass index (BMI) more than 30 kg/m², 13 diabetics were overweight (BMI between 25 and 30 kg/m²), and the rest were normal or underweight at the time of study.

The mean number of drugs per prescription of the diabetic individuals was 2.3. The medicines consisted of one or two antidiabetic drugs along with other drugs such as drugs for hypertension, ischemic heart disease, multivitamin and antioxidant tablets, lipid lowering drugs, etc.

Thirty-three patients (86.8%) opted for treatment through government primary healthcare clinics (allopathic drug treatment). Three patients (7.9%) availed traditional medical treatment by Bomoh (traditional healers) in the village and had no plans to shift to allopathic treatment in the near future. Two (5.3%) patients received no treatment since the diagnosis of diabetes mellitus type 2 was done (4 and 6 years ago, respectively, in both the individuals). The reason for not receiving treatment in these two individuals was their nonwillingness to take any form of treatment.

For the 33 patients on allopathic treatment, the top four antidiabetic drugs prescribed were glibenclamide (10

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patients) followed by metformin (9 patients), insulin (7 patients), and thiazolidinediones group of drugs (7 patients). Glibenclamide with metformin was the most common fixed dose combination of oral hypoglycemic drugs.

Thirty-one (81.6%) patients (presently on allopathic medicines) were satisfied with the current line of treatment. Two (5.3%) patients were dissatisfied and wanted to change to traditional medicines. The main reasons for change were inadequate control of diabetes and side effects related to oral hypoglycemic drugs in the past, especially frequent hypoglycemic events.

Out of the 38 diabetic patients interviewed, 33 (86.8%) patients were adequately aware of the preliminary knowledge about diabetes mellitus and were well informed about the drugs prescribed to them (name of drug, route of administration, frequency of administration, and common side effects of drugs prescribed to them). The rest of the diabetic patients (5, 13.2%) had no idea about the disease, and neither were interested in knowing about the facts and treatment guidelines for the disease. It was also noted that all the antidiabetic drugs were properly stored and were within the expiry period.

The finding of the study has shown that villagers of the village studied use antidiabetic drugs appropriately in the community.

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