

Full Paper Title:

Medication Use Review of Patients with Type 2 Diabetes Mellitus Who Received Insulin Therapy

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Abstract:

Background: Diabetes mellitus is a chronic disease that requires treatment in a sustainable manner and educating the patient to prevent complications and occurrence of Drug Related Problems (DRPs). DRPs is an undesirable events related to drug therapy. Urgency: Therefore research needed in the pharmaceutical services in the form of monitoring the treatment of patients with type 2 diabetes mellitus receiving insulin therapy to assess patient knowledge about drug use and DRPs that can affect the effectiveness of treatment and the occurrence of side effects caused in terms of drug selection, rules of use, how drug use and behavior in patients taking the drug.

Methods: Data obtained with cross sectional study with interview method using Medication Use Review form, conducted with further analysis.

Results & Conclusion: The result showed that among the study subjects as much 15 people, they had moderate knowledge about the use of insulin (74%) or the use of their oral diabetic agents (61%). DRPs was analyse and results using v6.2 PCNE instrument indicates that there is 89% event of DRPs of suboptimal therapy and 100% of patients was experienced of non-allergic adverse events resulting from drug selection, rules of use, how to use drugs, and patient behavior. Measurement of adherence obtained results 68% of patients always obedient using insulin and 83% of patients being obedient in using their oral diabetic agents.

Key Words : type 2 diabetes mellitus , insulin therapy, medicine use review, drug related problems

BACKGROUND

Diabetes mellitus is a chronic disease that requires medical treatment and education on an ongoing basis to prevent complications. Education is very important to be applied in patients with chronic disease, because patients must take drugs for long periods of time and continuously. In patients with diabetes, education is needed to be able to help improve knowledge and understanding of the disease and the patient received treatment because it can improve patient compliance, control blood sugar, as well as the therapeutic efficacy can be achieved. (Miller *et al*, 2005)

When the patients have not been controlled with oral antidiabetic use, then insulin therapy is one of the recommended. Insulin is a hormone that has an important role in metabolism, which helps transport glucose into cells. Knowledge about insulin among diabetic patients still unwell, because according to clinical experience, many patients with diabetes do not understand about the function, use, the way of insulin storage, and some are still afraid to inject insulin themselves. Based on the results of a survey conducted by Richard Rubin PhD in 2004, of 1,971 patients with type 2 diabetes who use insulin recommended, half fear having to use insulin, this was due to several factors, among others, patients do not understand the use of insulin, and the perception that the use of insulin can not control blood sugar levels effectively. (Funnell dan Kruger, 2004)

In the effort to control and treatment of diabetes mellitus, the role of pharmacists is needed to achieve treatment goals. Pharmacists are professionals who have the competence to give patient-oriented pharmaceutical services including: supporting patient adherence to therapy, monitoring the effectiveness and side effects of drug therapy, especially in the Self-Management Education (DSME), conduct a review of treatment regimens using a model of Medication Use review (MUR) (patient knowledge about drug indications, patient compliance, patient comfort with dosage forms of drugs used, drug effectiveness, and side effects of the drug), and medication Therapy Management (MTM) (Identification of drug Related Problems / DRP, assessment, follow up, Self Monitoring Blood Glucose /SMBG), and in collaboration with health professionals in the delivery of patient and family education and drug information and therapeutic developments. Pharmacists practice using the model of DSME, MUR in Community Pharmacy and MTM in Pharmacy Practice refers to the philosophy and process of pharmaceutical care, to patients with chronic diseases such as diabetes. (Binfar, 2005; PSNC, 2012; Smith, 2009)

Thus the need to do research on pharmaceutical services in the form of reviews on the treatment of patients with type 2 diabetes who received insulin therapy in the community, in