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Effectiveness and prescription pattern of lipid-lowering therapy and its associated factors among patients with type 2 diabetes mellitus in malaysian primary care settings (Article) Open Access

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Abstract

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Background: Cardiovascular diseases (CVDs) are the main complication leading to morbidity and mortality among patients with type 2 diabetes mellitus (T2DM). There is a large amount of evidence to support the use of lipid-lowering therapy (LLT) for the prevention of CVD. This study aimed to assess the effectiveness and prescription quality of LLT among T2DM patients and to identify its associated factors. Methods: A multicenter cross-sectional study included 816 T2DM patients from four different primary care centers in Pahang, Malaysia. We involved LLT-eligible T2DM patients as per the national clinical practice guidelines (CPG). The assessment of therapy effectiveness focused on the attainment of target lipid measures stated in the CPG. Evaluation of the prescription quality was classified into appropriate, potentially inappropriate, and inappropriate, based on the compliance with guidelines and existence of potential safety concerns. Binomial logistic regression was employed to identify the predictors of LLT effectiveness and prescription quality. Results: The overall percentage of T2DM patients receiving statin therapy was 87.6% (715/816). Statin therapy was appropriately prescribed in 71.5% of the cases. About 17.5% of the LLT prescriptions have at least one significant drug interaction with co-prescribed medications. The achievement of the primary target of low-density lipoprotein cholesterol (LDL-C) levels was observed in only 37% of T2DM patients. The LLT indication and appropriateness of prescription were significantly associated with the attainment of LDL-C treatment goals. Primary prevention, Malay race, and hypertension were identified as predictors for appropriate prescribing of LLT among T2DM subjects. Conclusion: There is a need to enhance the quality of LLT prescribing in the primary care setting to cover all eligible high-risk patients and ensure patient safety. Strategies to improve the achievement of LDL-C goals among patients with T2DM, such as investigating the potential role of the combination therapy and high-intensity statin therapy, are required. © 2019 Elnaem et al.

SciVal Topic Prominence

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EMTREE medical terms: adult aged Article cardiovascular disease cross-sectional study drug efficacy drug safety female human hypertension logistic regression analysis major clinical study Malay (people) Malaysia male multicenter study non insulin dependent diabetes mellitus practice guideline prescription primary prevention

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