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Treatment of Type 2 Diabetes Mellitus: Physicians' Adherence to the American Diabetes Association Guideline in Central Region, Saudi Arabia

Authors: Ibrahim Mohammed

Abstract: Background: Diabetes mellitus is a chronic disease that can cause devastating secondary complications, reducing the quality and length of life as well as increasing medical costs for the patient and society. The guidelines recommend both clinical and preventive strategies for diabetes management and are regularly updated. The aim of the study is to assess the level of adherence of physicians to American Diabetes Association Guidelines. Method: Observational multicenter retrospective study will be conducted among different hospitals in the central region. Patient data will be collected from the records of the last three years (2017-2020). Records will be selected randomly after a complete randomized design. The study focuses on the management of type 2 according to ADA not changed in the last three updating; those standards; all patients should be taking Metformin 1500 to 2000 mg/day as recommended dose and should be received a high dose of statin if the high risk to ASCVD or moderate statin if not at risk, patients with hypertension and diabetes should taking ACE or ARBS. Result: The study aimed to evaluate the commitment of physicians in the central region to the ADA. Out of the 153 selected patients, only 17 % were able to control their diabetes with an average A1c below 7. ADA stated that to reach the minimum benefit of using Metformin, the daily dose should be between 1500 and 2000 mg. Results showed that 110 patients were on Metformin, where 68% of them were on the recommended dose. ADA recommended the intake of high statin for diabetic patients with ASCVD risk, while diabetic patients without ASCVD risk should be on a moderate statin. Results showed that 61.5% of patients with ASCVD risk were at high statin while only 36% of patients without ASCVD risk were at moderate statin. Results showed that 89 patients have hypertension, and 80% of them are getting ACE/ARBs as recommended by the ADA. Recommendation: It is necessary to implement periodic training courses for some physicians to enhance and update their knowledge.

Keywords: American Diabetic Association, diabetes mellitus, atherosclerotic cardiovascular disease, ACE inhibitors

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