PP164 Prescribed Medication Use, Complications, And Cost of Type 2 Diabetes Mellitus In The Real World

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Introduction. Type 2 diabetes mellitus (T2DM) is one of the major diseases threatening the health of Chinese residents. Insufficient glycemic control results in inevitable and sometimes irreversible complications. The condition can be more complicated for patients with comorbidities. To maintain appropriate glycemic control, patients may need to add or switch to different classes of drugs as the disease progresses. The complicated drug treatment for diabetes poses a high risk for drug-drug interactions and challenges patient compliance, which is the most important factor affecting the ability to achieve glycemic control. In addition, T2DM is a life-long disease that is associated with a heavy economic burden for patients' families and for society. Therefore, this paper aims to characterize the complexity of prescribed medications used to treat T2DM and to assess the trends in the number of complications, medications used, and costs incurred among these patients.

Methods. Data were retrieved from two tertiary hospitals. The population consisted of patients receiving at least one diagnosis of diabetes (International Classification of Diseases-10 codes: E11, E12, E13, and E14) between October 2007 and May 2017. Three measures were assessed, including the number of patients with different complications, concomitant drug use, and costs. Patients with a short disease duration (< 5 years) were compared with patients who had a longer disease duration ($\geq$ 5 years).

Results. Of 31,071 patients, about half of those with a longer disease duration had at least five concomitant diseases, compared with nine percent of patients with a shorter disease duration. The maximum number of concomitant diseases was nine for both disease duration groups. Patients with longer disease duration were more likely to use multiple classes of drugs, compared with patients in the short disease duration group. The average annual medical costs for patients without concomitant disease was CNY 1,894 (USD 265).

Conclusions. Overall, the results demonstrated that T2DM is a relatively complex disease. Firstly, patients have up to nine concomitant diseases and use twenty-two classes of drugs. Secondly, patients with more complications tended to use more medications. Thirdly, patients with a longer disease duration tend to have a higher number of concomitant diseases, use more classes of drugs, and have higher medical costs than patients with a shorter disease duration.

PP181 Direct Comparison Of The Effectiveness And Safety Of Apixaban, Dabigatran, Rivaroxaban, And Warfarin: Subgroup Analyses Of Medicare Beneficiaries

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Introduction. No studies have directly compared the effectiveness and safety of direct oral anticoagulants (DOACs) and warfarin in patients with atrial fibrillation (AF), with or without a history of ischemic stroke and transient ischemic attack (TIA). This is important for two reasons: first, previous research reports important differences between DOACs and warfarin across other patient subgroups, and second, patients with previous stroke or TIA have a high risk of recurrent stroke.

Methods. Using 2012–2014 Medicare claims data, we identified patients newly diagnosed with AF in 2013–014 who started taking apixaban, dabigatran, rivaroxaban, or warfarin. We categorized the patients according to whether they had a history of stroke or TIA. We constructed Cox proportional hazard models that included indicator variables for treatment groups, a history of stroke or TIA, and the interaction between them, and controlled for demographic and clinical characteristics.

Results. The hazard ratio (HR) for stroke with dabigatran, compared with warfarin, was 0.64 (95% confidence interval [CI]: 0.48–0.85) for patients with a history of stroke or TIA and 0.94 (95% CI: 0.75–1.16) for patients without a history of stroke or TIA (p-value for interaction = 0.034). In patients with previous stroke or TIA, the risk of stroke was lower with dabigatran (HR 0.64, 95% CI: 0.48–0.85) and rivaroxaban (HR 0.70, 95%CI: 0.56–0.87), compared with apixaban, but there was no difference for patients in the other subgroup.

Conclusions. DOACs were generally more effective than warfarin for preventing stroke. The superiority of dabigatran was more pronounced in patients with a history of stroke or TIA. The comparative effectiveness of DOACs differed substantially between patients with and without a history of stroke or TIA; specifically, apixaban was less effective in patients with a history of stroke or TIA. Our results reinforce the need to tailor anticoagulation to patient characteristics and to support the investigation of the underlying mechanisms associated with DOACs.

PP185 Oral Health Status And Food Consumption Patterns In Selected Primary School Children

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Introduction. Nutrition is critical to the oral health of the individual. From gestation through to end of life, nutrition influences the integrity and function of the dentition and supporting oral structures and has a direct effect on health in general. According to the World Health Organization, diet has an important role in the prevention of oral diseases such as dental caries, dental erosion, defects in oral development, diseases of the oral mucosa, and periodontal disease.

Methods. A study was conducted to assess the oral health status and food consumption patterns of students attending the Rotary School and College at Mirpur-14, Dhaka on November 2018. Consent was provided by the school headmaster and guardians. A purposive sample of seventy students was taken. A semi-structured questionnaire and checklist was developed in the English and Bengali languages. Data were presented in simple frequency tables.