

Current Drug Treatment Landscape for Type 2 Diabetes –Results from personalized A1C audit data

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Background: It is important that a patient-centered approach should be used to guide the choice of pharmacological agents. The aim of this study was to evaluate patterns of drug use among diabetes patients in relationship to individualized A1C goal.

Materials and Methods: This study used audited data in 2016 from a total of 400 randomly selected T2DM at Theptarin hospital which is one of the most comprehensive diabetes centers in Bangkok. The relationship between medication use and documented personalized A1C were examined.

Results: The study included 400 patients (mean age 66.0±12.5 yrs, DM duration 14.8±9.7 yrs, BMI 26.5±4.6 kg/m², A1C 7.1±1.2%). Oral anti-diabetic drugs (OAD) were the most frequently used (74.0%) and the rate insulin usage was 23%. Metformin was the most commonly prescribed (73.5%) followed by DPP4 inhibitor (48.3%) and sulfonylurea (34.0%). TZD was still frequently used (29.0%) especially in non-achieved A1C target. Among patients using insulin-based therapy, only 27.2% achieved individualized A1C target regardless of concomitant OAD or GLP1 receptor agonist use. Alpha-glucosidase inhibitor was only used in 2.3% while SGLT2i was used in 8.0% of patients.

Conclusion: This study gives a picture of the pattern of drug use among diabetes patients in a private setting in Bangkok. DPP4 inhibitor was more preferred over sulfonylurea as an add-on treatment to metformin. TZD prescriptions did not decline radically after the publication of safety warnings as in other countries. Insulin user groups had the highest proportions of patients with poor A1C control compared with other medication class users.