

## The treatment inertia and combination therapy in newly diagnosed diabetes patients

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Type 2 diabetes mellitus (T2DM) is a serious health problem and nowadays more than 2 millions diabetic patients in Taiwan, and it is projected to rise in the coming decades. The UK Prospective Diabetes Study (UKPDS) demonstrated that intensive glycemic control, which achieved 0.9% lower Hba1c levels on average compared with conventional glycemic control, lowered the risk of microvascular complications in patients with T2DM. In Action to Control Cardiovascular Risk in Diabetes (ACCORD), Action in Diabetes and Vascular Disease: Preterax and Diamicron MR Controlled valuation (ADVANCE), UKPDS, and Veterans Affairs Diabetes Trial (VADT), confirmed a 15% myocardial infarction risk reduction for a 0.88% lower Hba1c. Hence, it is important to have good glycemic controlled to avoid both micro- and macrovascular related diabetic complications.

Treatment inertia defined as the failure of healthcare providers to initiate or intensify treatment when indicated, or to deescalate therapy when appropriate. Treatment inertia is multifactorial, resulting from patient-level factors, provider-level factors and system-level factors. For newly diagnosed T2DM, clinical inertia include reluctance to initiate combination therapies in early-stage disease; movement beyond monotherapy in patients who are asymptomatic is often slow, particularly when faced with a lack of confidence or experience with newer therapies. Actually, early treatment intensification may bring to sustained good glycemic control and it is essential to delay diabetic complications.

An important landmark study of early combination in T2DM is VERIFY study (the Vildagliptin Efficacy in combination with metfoRmIn For earlyY treatment of type 2 diabetes). The study result confirmed that early intervention with a combination therapy of vildagliptin plus metformin provides greater and durable long-term benefits compared with the current standard-of-care initial metformin monotherapy for patients with newly diagnosed T2DM. It indicates that long-term clinical benefits can be achieved more frequently and without tolerability issues with early combination treatment compared with standard-of-care metformin monotherapy.