Advanced therapeutic approach in management of diabetes mellitus through precision medicine

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Among chronic diseases, diabetes mellitus carries one of the most life-threatening and disabling complications. It has its cost complications in addition to reducing life expectancy. Diabetes management aims to find each patient's best course of action at the ideal time. Using precision medicine for patients with diabetes mellitus can improve the quality of therapy. For this, genetic screening becomes an essential component. The pharmacogenetics of antidiabetic medications can be a hallmark component that can be incorporated into genetic screening. For the management of diabetes, precision medicine is gaining momentum. Long-lasting response to oral sulphonylureas in insulin-dependent infants because of neonatal diabetes (abnormal beta cells) is considered one of the best examples of the significance of precision medicine. The present review aims to pinpoint the new subgroups of diabetes based on glutamic acid decarboxylase antibodies, age, body mass index, A1C, insulin resistance and glycemic response to metformin. Incorporating genetic screening into therapeutic therapy and achieving precision medicine for type 2 diabetes patients depends on the pharmacogenetics of anti-diabetic drugs. The importance of PM in the treatment of diabetes is expanding and its use can revolutionize the lives of diabetic individuals.

years and older[2]. There have been different trends in treating diabetes, from simple lifestyle management, and insulin shots, to complex statin therapy, stem cell technology, nanoparticle targetted therapy, gene therapy, medical nutrition therapy, chrono nutrition, omic assays, continuous glucose monitoring devices, insulin pumps, closed-loop systems and the artificial pancreas[3]. There have been different trends and all of them have added up in coping with this disease. Among those trends that have evolved, precision medicine (PM) is an effective way to deal with any diseases[4]. PM refers to the type of treatment that is approached considering the patient's genetic makeup and their culture, beliefs, likes and dislikes[5]. It is the ethical and empathetic approach to treating every patient. It relies heavily on data and generated genomic data available to the state and also considers the environment and lifestyle. It aims to bring personalized medicine to the state's agenda and policies to reform healthcare[6]. What PM aims to achieve is to target the right treatments to the right patients at the right time. In essence, it depicts a framework wherein precise diagnosis could lead to precision therapeutics, which can further lead to more precise and targetted prevention measures and treatments. The results give rise to precision pro-