Unravelling the utility of modern sulfonylureas from cardiovascular outcome trials and landmark trials

Aim: The primary objective of this review was to develop practice-based expert group opinions on the cardiovascular (CV) safety and utility of modern sulfonylureas (SUs) in cardiovascular outcome trials (CVOTs).

Background: The United States Food and Drug Administration issued new guidance to the pharmaceutical industry in 2008 regarding the development of new antihyperglycemic drugs. The guidance expanded the scope for the approval of novel antihyperglycemic drugs by mandating CVOTs for safety. A few long-term CVOTs on dipeptidyl peptidase 4 inhibitors, glucagon-like peptide 1 receptor agonists, and sodium-glucose cotransporter 2 inhibitors have been completed, while others are ongoing. SUs, which constitute one of the key antihyperglycemic agents used for the management of type 2 diabetes mellitus (T2DM), have been used as comparator agents in several CVOTs. However, the need for CVOTs on modern SUs remains debatable. In this context, a multinational group of endocrinologists convened for a meeting and discussed the need for CVOTs of modern SUs to evaluate their utility in the management of patients with T2DM. At the meeting, CVOTs of modern SUs conducted to date and the hypotheses derived from the results of these trials were discussed.

Review results: The expert group analyzed the key trials emphasizing the CV safety of modern SUs and also reviewed the results of various CVOTs in which modern SUs were used as comparators. Based on literature evidence and individual clinical insights, the expined that modern SUs are cardio-safe and that since they have been used as comparators in other CVOTs, CVOTs of SUs are not required.

Conclusion: Modern SUs can be considered a cardio-safe option for the management of patients with diabetes mellitus and CV disease; thus, CVOTs among individuals with T2DM are not required.

Publications

Utility of Precision Medicine in the Management of Diabetes: Expert Opinion from an International Panel

Glucrocrinology: The Relationship between Glucose and Endocrine Function

Treatment options in people with COVID19: Selecting the best armamentarium against the novel virus

The Lipo-Phenotypic Screening Tool for Familial Hypercholesterolaemia

Basal insulin and glucagon-like peptide 1 receptor agonist (GLP1 -RA) combination