

Renal and cardiovascular considerations in diabetes management.

Treatment choices in 2019

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As we continue to understand the pathophysiology of type 2 diabetes better, our treatment choices have evolved and improved with great strides. The latest ADA/EASD guidelines consensus statement now has a dedicated pathway for patients with high cardiovascular and renal risk.

The two major trials that informed these recommendations, the EMPA-REG and LEADER trials, prompted changes in the approach to the management of T2DM and subsequent trials, CANVAS and DECLARE-TIMI 58 confirmed these findings and provided even more data to support this approach. As patients have been commenced on these newer medications, apart from the need to control their hyperglycaemia, the additional benefit of protecting the kidneys and improving cardiovascular outcomes has shifted the approach to treatment.

Patients with T2DM have a high mortality rate due to cardiovascular disease. Despite effective control of hyperglycaemia, past studies have not provided significant improvements in survival despite achieving HbA1c targets. The ADVANCE study did show renal benefit but the CV data was disappointing. The Metformin arm of the UKPDS study did show CV benefit but only included a relatively small group of patients. The use of Metformin as initial therapy in T2DM has remained the treatment of choice, but now newer alternatives exist for add-on therapy.

The use of statins for lipid control, aspirin as well as RAAS blockers did improve outcomes in T2DM patients at cardiovascular risk but again the missing link has always been the use of medication that would attack the CV risk even more whilst controlling the glucose levels to target HbA1c. The complexity of CV disease in the patient with T2DM has made this a challenge especially after the disappointing results of the ACCORD and VADT studies and to a lesser extent the ADVANCE trial. At that time it was not even clear whether our HbA1c targets were too ambitious. The risk of hypoglycaemia as well as weight gain with the agents available at the time continued to pose questions as to the safety and efficacy of treatment.

With these trials as background, the rationale for the present consensus statement will be discussed as we adjust our treatment approach to include cardiovascular protection and risk reduction in addition to treating hyperglycaemia.

