Dapagliflozin is not only clinically effective, but also cost-effective in patients with chronic kidney disease

2 November 2022

The burden of chronic kidney disease (CKD) to both health care systems and patients is considerable. Dapagliflozin, a sodium-glucose cotransporter-2 inhibitor, has been shown to be an efficacious treatment for CKD in the Dapagliflozin And Prevention of Adverse outcomes in CKD (DAPA-CKD) trial. A recent analysis in the Clinical Journal of the American Society of Nephrology (CJASN) indicates that in patients eligible for the DAPA-CKD trial, dapagliflozin is not only effective from a clinical standpoint, but also from a cost standpoint.

The DAPA-CKD trial showed treatment with dapagliflozin and standard of care led to a slowing of decline in kidney function and a reduction in the incidence of kidney failure and risk of cardiovascular- or kidney-related death, compared with placebo and standard of care. In this latest analysis, Phil McEwan, Ph.D. (Health Economics and Outcomes Research Ltd., Cardiff, UK) and his colleagues estimated the cost-effectiveness of dapagliflozin added to standard therapy, compared with standard therapy alone, based on the results of the DAPA-CKD trial and considered from a multinational European healthcare system perspective.

Treatment with dapagliflozin was predicted to slow the progression of CKD to kidney failure, to reduce the incidence of adverse clinical outcomes including hospitalization for heart failure, and to increase life expectancy by 1.7 years. Delayed CKD progression to kidney failure and reduced incidence of hospitalization for heart failure provided important cost-offsets to the drug acquisition cost of dapagliflozin.

"Our results indicate that should patients with chronic kidney disease be treated with dapagliflozin at an early stage of disease, the rate of cardio-renal complications could be reduced leading to improved health-related quality of life in patients and significant benefits for healthcare systems in a cost-effective manner," said Dr. McEwan.

An accompanying editorial notes that the study adds to a plethora of work demonstrating the cost-effectiveness of sodium-glucose cotransporter-2 inhibitors in both diabetic and non-diabetic kidney disease.

Additional study authors include Oliver Darlington, MSc, Ryan Miller, MSc, John J.V. McMurray, MD, David C. Wheeler, MD, Hiddo J.L. Heerspink, Ph.D., Andrew Briggs, DPhil, Klas Bergenheim, Ph.D., and Juan Jose Garcia Sanchez, MSc.

More information: Phil McEwan et al, Cost-Effectiveness of Dapagliflozin as a Treatment for


Provided by American Society of Nephrology


*This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.*