

SGLT-2i use before COVID-19 may reduce adverse outcomes in diabetes patients

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For patients with diabetes subsequently diagnosed and hospitalized with

COVID-19, use of a sodium-glucose cotransporter-2 inhibitor (SGLT-2i) before COVID-19 infection is associated with lower COVID-19-related adverse outcomes, according to a systematic review and network meta-analysis published online Dec. 6 in *JAMA Network Open*.

Zheng Zhu, from the Shengli Clinical Medical College of Fujian Medical University in Fuzhou, China, and colleagues examined the association between COVID-19-related adverse outcomes and eight antihyperglycemic drugs in patients with diabetes subsequently diagnosed and hospitalized with COVID-19 in a review and meta-analysis. Data were included from 31 [observational studies](#), with 3,689,010 patients with diabetes hospitalized for COVID-19.

The researchers found that compared with insulin, dipeptidyl peptidase-4 inhibitors, secretagogues, and glucosidase inhibitors, the SGLT-2is were associated with relatively lower risks for adverse outcomes (log of odds ratios [95 percent credible intervals], 0.91 [0.57 to 1.26], 0.61 [0.28 to 0.93], 0.37 [0.02 to 0.72], and 0.50 [0.00 to 1.01]). SGLT-2is were associated with the lowest probability for adverse outcomes followed by glucagon-like peptide 1 receptor agonists and metformin based on the surface under the cumulative ranking curves value (6, 25, and 28 percent, respectively). The study was deemed reliable in a sensitivity analysis.

"Our results suggest that compared with other diabetes drugs, the use of SGLT-2is before COVID-19 infection in patients with diabetes was associated with a lower incidence of [adverse outcomes](#) after infection, which may be associated with improving blood glucose level, [blood pressure](#), body weight, and lipid metabolism," the authors write.

More information: [Abstract/Full Text](#)

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