

Preoperative metformin tied to better surgical outcomes

April 15 2020



(HealthDay)—Preoperative metformin prescriptions may be associated

with decreased postoperative mortality and readmission among patients with diabetes undergoing a major surgical procedure, according to a study published online April 8 in *JAMA Surgery*.

Katherine M. Reitz, M.D., from the University of Pittsburgh School of Medicine, and colleagues used electronic health record data to identify 10,088 adults with diabetes who underwent a major operation with hospital admission (January 2010 to January 2016) at 15 community and academic hospitals within one health care system. Fifty-nine percent had preoperative metformin prescriptions. The analysis included 5,460 propensity score-matched patients (mean age, 67.7 years; 53 percent women).

The researchers found that in the [propensity score](#)-matched cohort, preoperative metformin was associated with a reduced hazard for 90-day mortality (adjusted hazard ratio [HR], 0.72 [95 percent confidence interval (CI), 0.55 to 0.95]; absolute risk reduction [ARR], 1.28 percent [95 percent CI, 0.26 to 2.31]) and hazard of readmission at 30 days (ARR, 2.09 percent [95 percent CI, 0.35 to 3.82]; sub-HR, 0.84 [95 percent CI, 0.72 to 0.98]) and 90 days (ARR, 2.78 percent [95 percent CI, 0.62 to 4.95]; sub-HR, 0.86 [95 percent CI, 0.77 to 0.97]). Preoperative inflammation was lower in those with [metformin](#) prescriptions versus those without (mean neutrophil-to-leukocyte ratio, 4.5 [95 percent CI, 4.3 to 4.6] versus 5.0 [95 percent CI, 4.8 to 5.3]).

"The advantages are likely not disease specific, but instead the pleiotropic properties may modulate the [stress response](#) generated by a major surgical intervention or confer consistently good outcomes, regardless of the [surgical procedure](#)," the authors write.

Two authors disclosed financial ties to the pharmaceutical industry.

More information: [Abstract/Full Text \(subscription or payment may](#)

[be required\)](#)

[Editorial \(subscription or payment may be required\)](#)

Copyright © 2020 [HealthDay](#). All rights reserved.

Citation: Preoperative metformin tied to better surgical outcomes (2020, April 15) retrieved 2 May 2024 from <https://medicalxpress.com/news/2020-04-preoperative-metformin-tied-surgical-outcomes.html>

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.