

Glucose levels linked to cardiac surgery outcomes

23 January 2016



(HealthDay)—For patients undergoing cardiac surgery, hyperglycemia is associated with worse outcomes for patients without diabetes, but with better outcomes for patients with insulin-treated diabetes, according to a study published online Jan. 19 in *Diabetes Care*.

Giampaolo Greco, Ph.D., from the Icahn School of Medicine at Mount Sinai in New York City, and colleagues conducted a multicenter cohort study in 4,316 [cardiac surgery](#) patients who underwent surgery in 2010. Glucose was measured every six hours for 48 hours postoperatively. The authors examined the correlations between maximum [glucose levels](#) and outcomes, including cost, hospital length of stay (LOS), and cardiac and [respiratory complications](#).

The researchers found that increasing glucose levels correlated with a gradual worsening of outcomes among patients without diabetes. Hyperglycemia (>180 mg/dL) correlated with an additional cost of \$3,192, an additional hospital

LOS of 0.8 days, a 1.6 percent increase in infections, and a 2.6 percent increase in respiratory complications. Optimal outcomes correlated with glucose levels of 180 to 240 mg/dL for patients with insulin-treated diabetes. This level of hyperglycemia correlated with cost reductions of \$6,225, a 1.6-day reduction in hospital LOS, a 4.1 percent reduction in infections, and a 12.5 percent reduction in respiratory complications. Outcomes did not differ significantly when hyperglycemia was present for patients with non-insulin-treated diabetes.

"These findings support further investigation of a stratified approach to the management of [patients](#) with stress-induced postoperative hyperglycemia based on prior diabetes status," the authors write.

One author disclosed financial ties to the pharmaceutical and medical device industries.

More information: [Abstract](#)
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APA citation: Glucose levels linked to cardiac surgery outcomes (2016, January 23) retrieved 26 August 2022 from <https://medicalxpress.com/news/2016-01-glucose-linked-cardiac-surgery-outcomes.html>

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