

# BMI, tracheal intubation and death linked in diabetes with COVID-19

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Body mass index (BMI) is associated with tracheal intubation and/or

death within seven days among individuals with diabetes hospitalized for COVID-19, according to a study published online May 29 in *Diabetologia*.

Bertrand Cariou, M.D., Ph.D., from the University of Nantes in France, and colleagues conducted a multicenter study in 1,317 people with diabetes (88.5 percent with type 2 diabetes; 64.9 percent men) hospitalized for COVID-19. Combined [tracheal intubation](#) for [mechanical ventilation](#) and/or death within seven days of admission was the primary end point.

The researchers found that the primary outcome occurred in 29 percent of participants, while 10.6 and 18 percent died and were discharged on day 7, respectively. Characteristics prior to admission that were significantly associated with the primary outcome included sex, BMI, and previous treatment with renin-angiotensin-aldosterone system blockers, but not age, type of diabetes, hemoglobin A1c, diabetic complications, or glucose-lowering therapies in a univariate analysis. Only BMI remained positively associated with the primary outcome in multivariable analyses with covariates prior to admission (odds ratio, 1.28). On admission, independent predictors for the primary outcome included dyspnea, lymphocyte count, C-reactive protein, and aspartate aminotransferase (odds ratios, 2.10, 0.67, 1.93, and 2.23, respectively). Independent associations for the risk for death on day 7 were seen for age, treated [obstructive sleep apnea](#), and microvascular and macrovascular complications (odds ratios, 2.48, 2.80, 2.14, and 2.54, respectively).

"The CORONADO study refined the phenotypes of COVID-19 individuals with [diabetes](#) admitted to hospital and showed that chronic glycemic control did not impact the immediate severity of COVID-19," the authors write.

Several authors disclosed financial ties to the biopharmaceutical industry.

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

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