Hypertension linked to increased risk for severe COVID-19

Hypertension is a risk factor for severe COVID-19, with a dose-response relationship for elevated systolic blood pressure (SBP) with severe COVID-19, according to a study published online Nov. 9 in *PLOS ONE*.

Holly Pavey, from the University of Cambridge in the United Kingdom, and colleagues examined the impact of hypertension, SBP, and antihypertensive medications on the risk for severe COVID-19 using data from the U.K. Biobank and linked health records.

Overall, 16,134 individuals tested positive for severe acute respiratory syndrome coronavirus 2, 22 percent developed severe COVID-19, and 40 percent had hypertension. The researchers found that compared with normotension, hypertension was associated with increased odds of severe COVID-19 after adjustment for confounding variables (odds ratio, 1.22). Elevated SBP showed a dose-response relationship with severe COVID-19 among those taking antihypertensive medications (odds ratios, 1.91 for 150 to 159 mm Hg versus 120 to 129 mm Hg; 1.93 for >180 mm Hg versus 120 to 129 mm Hg). Greater odds of severe COVID-19 were seen in association with SBP.