Did having kidney disease and other conditions affect COVID-19 outcomes in different waves of the pandemic?

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Individuals with chronic kidney disease (CKD) are vulnerable to developing severe forms of COVID-19, and acute kidney injury is a common complication of COVID-19. A recent analysis examined the temporal effects of pre-existing CKD and other medical conditions on COVID-19 outcomes by waves throughout the pandemic. The findings will be presented at ASN Kidney Week 2022 November 3–November 6.

Investigators identified 64,246 COVID-19 cases during 4 waves at Columbia University Medical Center in New York City, with 8% being severe and 18% requiring hospitalization. Among the major findings:

- The risk of severe COVID-19 was associated with pre-existing CKD, heart disease, diabetes, and hypertension in most waves; and lung disease, obesity, and cancer in at least one wave.
- Acute kidney injury occurred in 49% of severe cases and 35% of hospitalized ones.

"Pre-existing CKD was one of the most consistent clinical predictors of COVID-19 severity, complications, and poor outcomes across multiple pandemic waves," said lead author Ning Shang, Ph.D. "Hospitals could include kidney function evaluation in patient populations as part of consideration for planning treatments and evaluating hospital capacities during future pandemic waves" added co-author Krzysztof Kiryluk, MD.

More information: Study: "Kidney Disease and COVID-19 Outcomes in the Temporal Analysis of Pandemic Waves"

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