

# Toxic metabolic encephalopathy worsens COVID-19 outcomes

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(HealthDay)—Toxic metabolic encephalopathy (TME) occurs in 12

percent of hospitalized patients with COVID-19 and is associated with an increased risk for in-hospital mortality, according to a study published online March 16 in *Neurocritical Care*.

Jennifer A. Frontera, M.D., from the New York University Grossman School of Medicine in New York City, and colleagues conducted a retrospective observational cohort study among patients with COVID-19 hospitalized at four New York City hospitals to examine the prevalence, etiologies, and mortality rates associated with TME.

Overall, 12 percent of the 4,491 patients with COVID-19 were diagnosed with TME, of whom 78 percent developed encephalopathy immediately prior to hospital admission. The researchers found that septic encephalopathy, hypoxic-ischemic encephalopathy (HIE), and uremic encephalopathy were the most common etiologies (62, 59, and 28 percent, respectively). Patients with TME were older than those without and more often had dementia or a psychiatric history; they were more often intubated, had longer hospital length of stay, and were less often discharged to home. TME remained associated with an [increased risk](#) for in-hospital death when excluding comfort care patients and after adjustment for confounders (30 versus 16 percent; adjusted hazard ratio, 1.24). The highest risk for in-hospital death was seen for TME due to hypoxemia (42 percent of patients with HIE died versus 16 percent of those without HIE; adjusted hazard ratio, 1.56).

"The dramatic effect of common causes of encephalopathy on COVID-19 mortality suggests that we may need more aggressive use of countermeasures—oxygen supplementation, early dialysis in [renal failure](#), and fluids to counter the [low blood pressure](#) seen in sepsis," Frontera said in a statement.

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

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