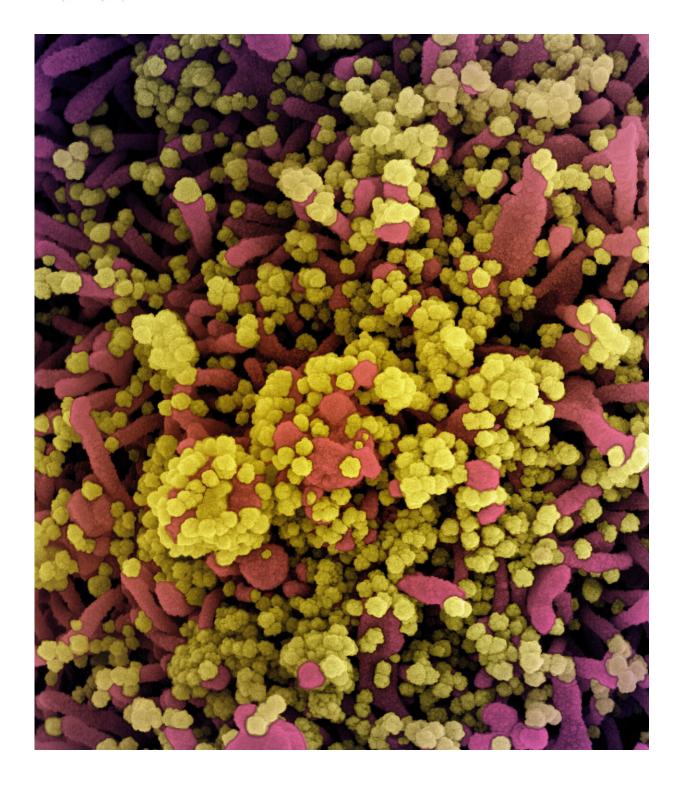


## Treatments for people with early COVID-19 infection is an urgent research focus

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Colorized scanning electron micrograph of a cell heavily infected with SARS-CoV-2 virus particles (yellow), isolated from a patient sample. Credit: NIAID



COVID-19 treatments for people with early infection are needed urgently, according to a *JAMA Viewpoint* article by National Institute of Allergy and Infectious Diseases (NIAID) Director Anthony S. Fauci, M.D., and colleagues. Treating people early in the course of infection with SARS-CoV-2, the virus that causes COVID-19, would speed their recovery, reduce the likelihood that they develop severe outcomes and reduce demand on the healthcare system, they write.

Despite experiencing only mild symptoms early in infection, many COVID-19 patients progress to severe disease that leads to hospitalization. Some also will experience lengthy recoveries and develop long-lasting fatigue, mental impairment and problems with heart and lung function.

While several treatments such as remdesivir and dexamethasone are either available or in development for severe COVID-19, interventions that can be administered early during the course of <u>infection</u> to prevent disease progression and longer-term complications are urgently needed.

Studies are underway to assess whether existing antivirals can be repurposed for early treatment. Scientists also are exploring the effectiveness of early treatment with therapies that specifically target SARS-CoV-2, such as convalescent plasma and monoclonal antibodies. Investigators also are exploring strategies to deliver therapies by alternative routes than by intravenous infusion, such as by inhalation or intramuscular injection.

Continued research is needed to refine current treatment candidates and develop new drugs, and treatments will need to be administered easily and made available widely at low cost, according to the authors.

The article also highlights the need to design novel antiviral treatment approaches akin to successful efforts for hepatitis C virus and HIV. Such



approaches could be helpful against future emergent viruses as well.

**More information:** Peter S. Kim et al, Therapy for Early COVID-19, *JAMA* (2020). DOI: 10.1001/jama.2020.22813

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