

include remdesivir (GS-5734), favilavir (T-705), riba- virin, lopinavir and ritonavir. Except for lopinavir and ritonavir, which inhibit 3CLpro, the other three all target RdRp^{***}? (FIG. 5). Remdesivir has shown activity against SARS-CoV-2 in vitro and in vivo^{***}. A clinical study revealed a lower need for oxygen support in patients with COVID-19 (REF.¹⁰). Preliminary results of the Adaptive COVID-19 Treatment Trial (ACTT) clinical rial by the National Institute of Allergy and Infectious Diseases (NIAID) reported that remdesivir can shorten the recovery time in hospitalized adults with COVID-19 by a couple days compared with placebo, but the differ- ence in mortality was not statistically significant^{**}. The FDA has issued an emergency use authorization for rem- desivir for the treatment of hospitalized patients with severe COVID-19. It is also the first approved option by he European Union for treatment of adults and adoles- cents with pneumonia requiring supplemental oxygen. Several international phase III clinical trials are contin- uing to evaluate the safety and efficacy of remdesivir for he treatment of COVID-19. Favilavir (T-705), which is an antiviral drug devel- oped in Japan to treat influenza, has been approved in China, Russia and India for the treatment of COVID-19. A clinical study in China showed that favilavir signif- icantly reduced the signs of improved disease signs on chest imaging and shortened the time to viral clearance⁷. A preliminary report in Japan showed rates of clinical improvement of 73.8% and 87.8% from the start of favilavir therapy in patients with mild COVID-19 at 7 and 14 days, respectively, and 40.1% and 60.3% in patients with severe COVID-19 at 7 and 14 days,