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Letter to the Editor

Re: 'ESCMID COVID-19 living guidelines: drug treatment and clinical management' by Bartoletti et al

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To the Editor

In their living guidelines for the treatment of hospitalized patients with coronavirus disease 2019 (COVID-19), Bartoletti and colleagues make a conditional recommendation to use remdesivir (RDV) in patients not on mechanical ventilation (MV) or extracorporeal membrane oxygenation (ECMO) [1]. The benefit of RDV has been shown only in the ACTT-1 placebo-controlled randomized clinical trial which showed a faster time to recovery. However, the uptake of corticosteroids in the ACCTT-1 trial was low, and corticosteroids have been shown to significantly decrease mortality and reduce the need for MV in COVID-19 patients. It is not known whether RDV has any benefit in a population with high corticosteroid uptake. Because of the lack of a meaningful effect on mortality or disease progression, World Health Organization (WHO) guidelines recommend against the use of RDV [2]. Importantly, Bartoletti et al. do not mention the severe cardiac side effects—including cardiac arrest, bradycardia, and hypotension—associated with RDV use that are now increasingly reported in international pharmacovigilance databases [3,4]. Multiple case reports of bradycardia and other electrocardiogram changes have been reported in the literature following RDV administration [5,6]. Mechanisms of RDV-induced cardiotoxicity have not been elucidated but might include alterations in adenosine metabolism [5], and *in vitro* data suggest a significant impact of RDV on cell viability in human pluripotent stem-cell cardiomyocytes [3]. The recommendation to use RDV in hospitalized COVID-19 patients should be performed after careful assessment of the benefit–risk balance which has clearly changed since the initial publication of the ACTT-1 trial.

Transparency declaration

The author has no conflicts of interest to declare.

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