

## Is there any potential management against COVID-19? A systematic review and meta-analysis

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A recent survey has shown that the COVID-19 pandemic has culminated in dramatical and critical treatment particularly in acute infected patients. In fact, this systematic review-meta-analysis was directly pertained to estimation at the efficient value of some clinical managements to confront the COVID-19. Pubmed, Embase, Scopus, Cochrane, and Scholar databases were searched from inception to July 1, 2020, to identify studies reporting the current treatment process and medications for COVID-19. A random-effects model meta-analysis was performed to calculate the relative risk (RR) with 95% confidence intervals (CI). Among 45 articles met the eligibility criteria (out of 6793 articles), 26 articles involving 3263 patients were included in quantitative analysis. Anti-COVID-19 interventions could significantly increase clinical improvement (RR 1.17, 95% CI 1.08–1.27; I<sub>2</sub> = 49.8%) and reduce the mortality rate (RR 0.58, 95% CI 0.35–0.95; I<sub>2</sub> = 74.8%). Although in terms of negative conversion, ICU entry, and mechanical ventilation demand, clinical intervention had no beneficial effect. The clinical effect of immunomodulatory agents (especially tocilizumab and anakinra) was noticeable compared to other medications with RR of 0.22 (95% CI 0.09–0.53; I<sub>2</sub> = 40.9%) for mortality and 1.25 (95% CI 1.07–1.46; I<sub>2</sub> = 45.4%) for clinical improvement. Moreover, Antivirals (RR 1.13, 95% CI 1.01–1.26; I<sub>2</sub> = 47.0%) and convalescent plasma therapy (RR 1.41, 95% CI 1.01–1.98; I<sub>2</sub> = 66.6%) had significant beneficial effects on clinical improvement. Based on our findings, all the included interventions significantly declined the mortality and enhanced clinical improvements with no effect on negative conversion and mechanical ventilation demand. Especially, immunomodulators and plasma therapy showed favorable outcomes.

### Biography

Haleh Talaie has completed her Infectious Diseases specialty course at the age of 37 years from Shahid Beheshti University of Medical Science and her research fellowship, Division of Clinical Pharmacology & Toxicology by supervision of Dr Gideon Koren, M.D., A.B.M.T., F.R.C.P.C The Hospital for Sick Children, University of Toronto, Canada. She is the director of Toxicological Research Center (TRC). She has published more than 50 papers in reputed journals and has been serving as an editorial board member of repute.