## Systematic synthesis research on herbal medicine for COVID-19: An overview

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## **ABSTRACT**

Introduction: The number of review papers on coronavirus disease (COVID-19) related topics are on a sharp rise due to the abundance of new literature over the past two years. Objective: This review aimed to provide an overview of the attributes and quality of systematic synthesis research on COVID-19 pertaining to herbal medicine. Materials and methods: We performed a systematic search and screen on electronic databases to include articles of systematic synthesis research on herbal medicine for COVID-19. Information on review characteristics including review type, topic, and details of herbal interventions were extracted for descriptive and numerical analysis while quality of reviews was assessed using the A MeaSurement Tool to Assess systematic Reviews (AMSTAR-2) tool. Results and conclusion: Forty-eight reviews were included, half (n=23) were on Chinese Herbal Medicine while the remaining (n=25) were overall reviews on herbal medicine in general and phytoconstituents. Most were scoping reviews (n=23) and systematic reviews and/or meta-analyses (SR/MA) (n=21). All reviews address use of herbal medicine for acute phases of COVID-19. For AMSTAR-2 critical domains, only one third (n=15) had a protocol registered prior to commencement of the review while 21% (n=10) reported comprehensive literature search. When narrowed down to SR/MA, almost all (n=20) had an a priori protocol and 45% (n=9) reported comprehensive literature search. Risk of bias assessment was performed in almost all SR/MA while source of heterogeneity was not sufficiently addressed. The bulk of the evidence available on herbal medicine and COVID-19 are for its use during acute phases of COVID-19. Published SR/MA have lesser limitations than scoping reviews in critical domains of high-quality reviews but are highly concentrated on Chinese Herbal Medicine. This may be due to small number of clinical trials on other modalities of herbal medicine suitable to be pooled for SR/MA while there is no systematic synthesis research on post-COVID-19 complications, highlighting the research gaps.