

Database	Query
PubMed	((((((((((((("Complementary Therapies"[MeSH]) OR ("Ayurveda"[Title/Abstract])) OR ("Naturopathy"[Title/Abstract])) OR ("Chinese medicine"[Title/Abstract])) OR ("oriental medicine"[Title/Abstract])) OR ("Persian medicine"[Title/Abstract])) OR ("Koryo"[Title/Abstract])) OR ("complementary"[Title/Abstract])) OR ("alternative"[Title/Abstract])) OR ("integrative"[Title/Abstract])) OR ("traditional medicine"[Title/Abstract])) OR ("herb*"[Title/Abstract])) OR ("plant*[Title/Abstract])) OR ("green medicine"[Title/Abstract])) OR ("Herbal Medicine"[MeSH])) OR ("Botanical"[Title/Abstract])) OR ("phytomedicine"[Title/Abstract])) OR ("phytotherapy"[Title/Abstract])) AND (((("COVID-19"[Mesh] OR ("SARS-CoV-2"[Mesh])) OR ("SARS-CoV-2 variants" [Supplementary Concept]))) AND (((((((("Randomized Controlled Trial"[Publication Type]) OR ("Controlled Clinical Trial"[Publication Type])) OR ("Clinical Trial"[Publication Type])) OR ("Clinical Trials as Topic")))) OR (randomized[Title/Abstract])) OR (placebo[Title/Abstract])) OR (random*[Title/Abstract])) OR (trial[Title/Abstract])) NOT ((animals[MeSH Terms]) NOT (humans[MeSH Terms])))
Web of Science (WOS)	(Ayurveda OR Naturopathy OR "Chinese medicine" OR "oriental medicine" OR "Persian medicine" OR Koryo OR complementary OR alternative OR integrative OR "traditional medicine" OR "herb*" OR "plant" OR "green medicine" OR Botanical OR phytomedicine OR phytotherapy) AND ("COVID-19" OR "SARS-CoV-2") AND (random* OR placebo OR trial OR RCT)
Scopus	TITLE-ABS-KEY(Ayurveda) OR TITLE-ABS-KEY(Naturopathy) OR TITLE-ABS-KEY("Chinese medicine") OR TITLE-ABS-KEY("oriental medicine") OR TITLE-ABS-KEY("Persian medicine") OR TITLE-ABS-KEY(Koryo) OR TITLE-ABS-KEY(complementary) OR TITLE-ABS-KEY(alternative) OR TITLE-ABS-KEY(integrative) OR TITLE-ABS-KEY("herb*") OR TITLE-ABS-KEY("traditional medicine") OR TITLE-ABS-KEY("plant*") OR TITLE-ABS-KEY("green medicine") OR TITLE-ABS-KEY(Botanical) OR TITLE-ABS-KEY(phytomedicine) OR TITLE-ABS-KEY(phytotherapy) AND TITLE-ABS-KEY("COVID-19") OR TITLE-ABS-KEY("SARS-CoV-2") AND TITLE-ABS-KEY(random*) OR TITLE-ABS-KEY(placebo) OR TITLE-ABS-KEY(trial) OR TITLE-ABS-KEY(RCT)
Google Scholar	allintitle: (Ayurveda OR Naturopathy OR "Chinese medicine" OR "oriental medicine" OR "Persian medicine" OR Koryo OR complementary OR alternative OR integrative OR "traditional medicine" OR "herb*" OR "plant" OR "green medicine" OR Botanical OR phytomedicine OR phytotherapy) ("COVID-19" OR "SARS-CoV-2") (randomized OR randomization OR random OR placebo OR trial OR RCT)
Embase	(Ayurveda OR Naturopathy OR 'Chinese medicine' OR 'oriental medicine' OR 'Persian medicine' OR Koryo OR complementary OR alternative OR integrative OR 'traditional medicine' OR 'herb*' OR 'plant*' OR 'green medicine' OR Botanical OR phytomedicine OR phytotherapy OR 'Complementary Therapies'/exp OR 'Herbal Medicine'/exp) AND ('COVID-19'/exp OR 'SARS-CoV-2'/exp) AND(randomized OR randomization OR random* OR placebo OR trial OR RCT)

Appendix 1. Search strategy and corresponding queries in various databases

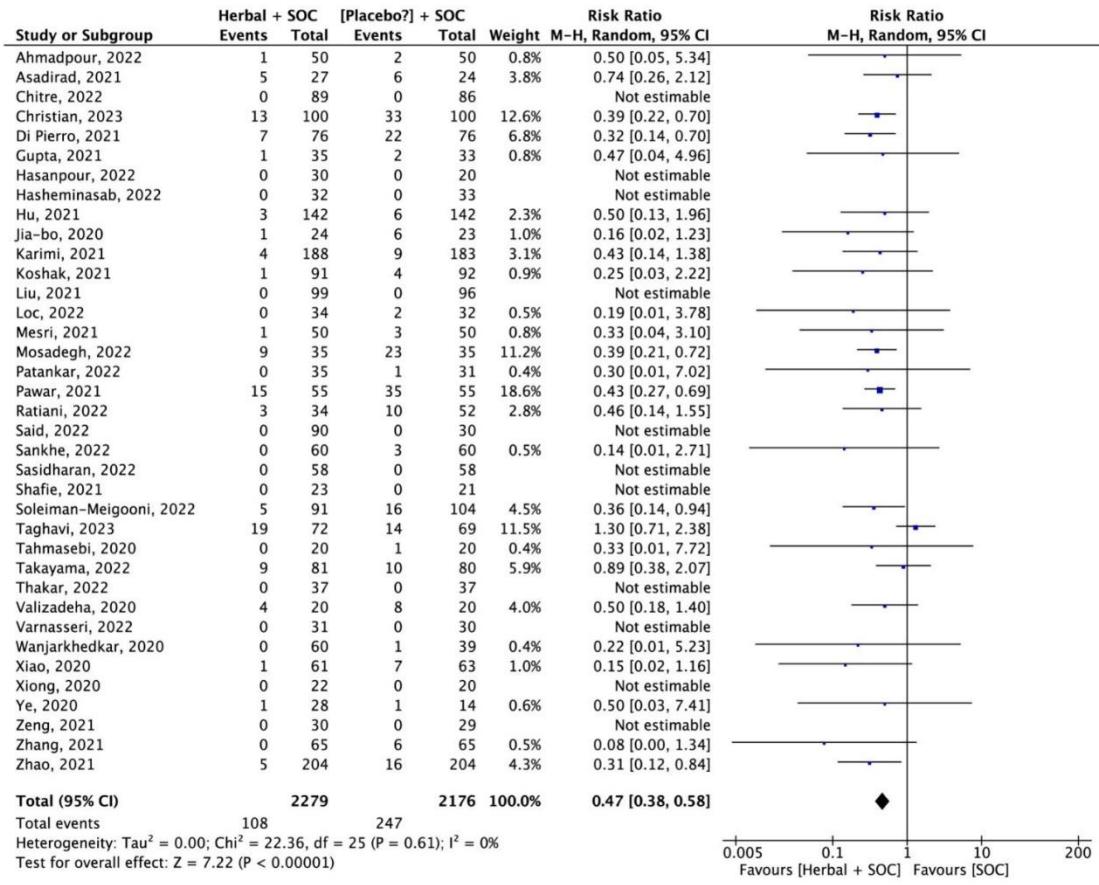
Criterion	Standards
Participants	Adults who were confirmed with the COVID-19 confirmed by RT-PCR test, irrespective of the disease severity
Interventions	Experimental groups received an herbal medicine add-on treatment to the standard of care (SOC) with at-least 7-day follow-up, irrespective of the treatment duration
Comparators	Control groups received placebo or no add-on treatment to the SOC with at-least 7-day follow-up, irrespective of the treatment duration
Outcomes	Studies reported an effectiveness outcome regarding the COVID-19 symptom improvement rate, hospital LoS duration decline, deterioration or mortality rate, or RT-PCR negative conversion rate
Study design	Randomized controlled clinical trials with parallel, cross-over or open-label designs

Appendix 2. The PICOS criteria for study inclusion

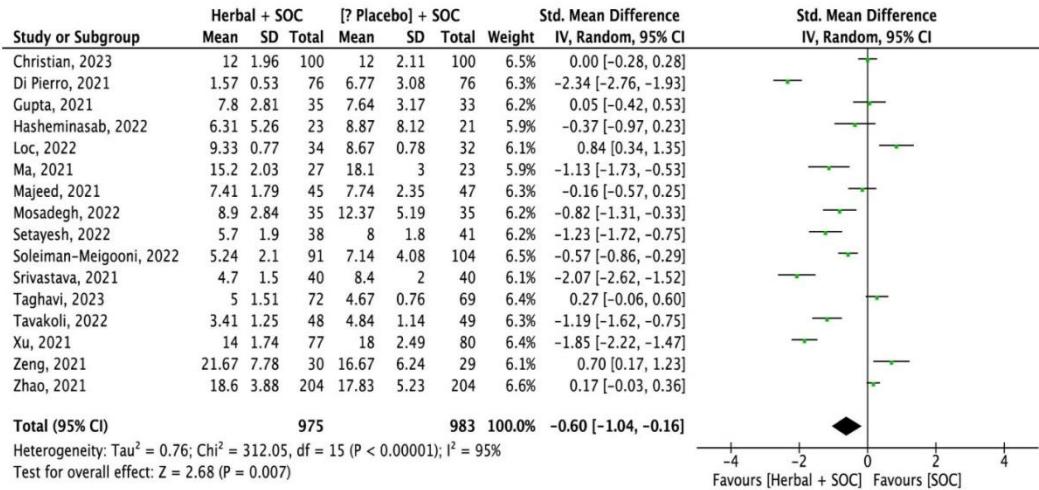
23	Setayesh, 2022																												
24	Tavakoli, 2022			X											X	X				X									X
25	Mehraban, 2023	X		X	X	X																							
26	Ahmadpour, 2022	X		X		X		X	X	X	X	X			X	X		X											
27	Asadirad, 2022												X		X	X		X											
28	Askari, 2022												X		X														
29	Borujerdi, 2022					X	X	X	X	X					X					X									
30	Chitre, 2022	X		X	X	X	X	X	X	X	X				X	X	X	X			X	X		X					
31	Christian, 2023	X			X	X		X	X	X					X		X												
32	Hasanpour, 2022	X	X		X										X	X												X	
33	Hasheminasab, 2022	X	X	X		X	X	X		X	X	X			X	X		X											
34	Shafie, 2021	X		X		X		X	X	X	X	X			X	X		X	X							X		X	
35	Loc, 2022				X	X	X	X	X	X	X				X			X											
36	Mosadegh, 2022								X				X			X					X								
37	Patankar, 2022										X				X	X												X	
38	Ratiani, 2022			X		X			X	X	X				X		X												
39	Said, 2022			X					X	X					X	X													
40	Sankhe, 2022	X													X	X													
41	Sasidharan, 2022				X			X	X	X			X		X						X								
42	Soleiman- Meigooni, 2022		X	X	X	X		X	X	X	X		X		X	X				X	X							X	
43	Taghavi, 2023					X		X	X	X			X		X	X		X			X	X					X	X	
44	Tahmasebi, 2021								X				X		X			X				X							
45	Takayama, 2022														X	X					X			X					
46	Thakar, 2022	X		X	X	X	X	X	X	X	X	X			X	X						X						X	
47	Valizadeh, 2020													X			X												
48	Varnasseri, 2022	X		X					X	X				X															
49	Xiong, 2020	X						X			X	X			X					X									
50	Ye, 2020										X				X			X							X				

Appendix 3. Exclusion criteria in 50 included RCTs

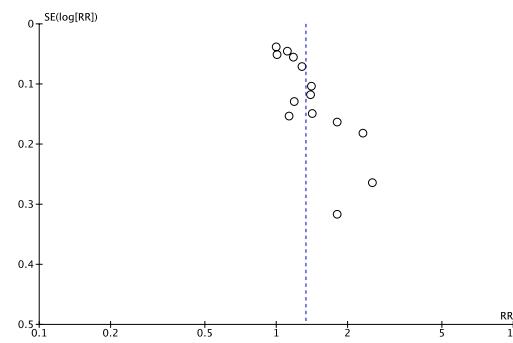
(A)



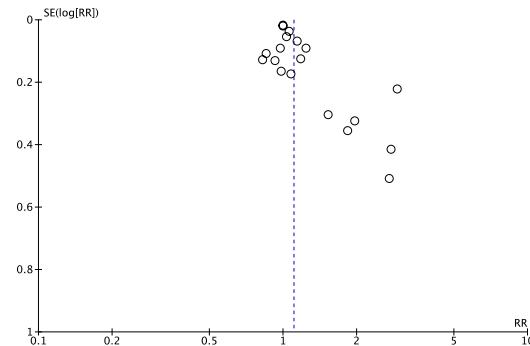
(B)



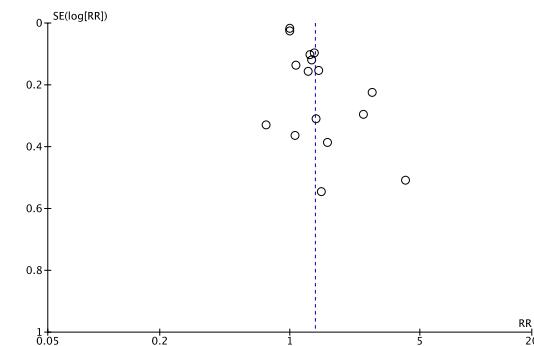
Appendix 4. Forrest plot of worsening rate (A), and hospital LoS (B) by herbal medicine add-on to SOC vs. SOC for COVID-19



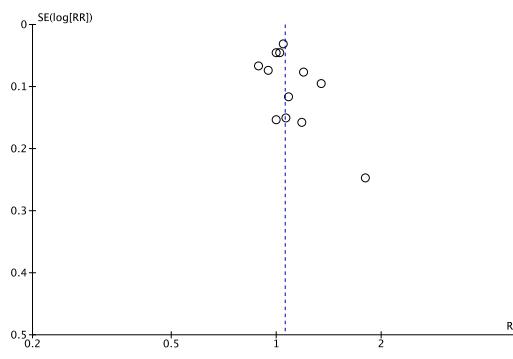
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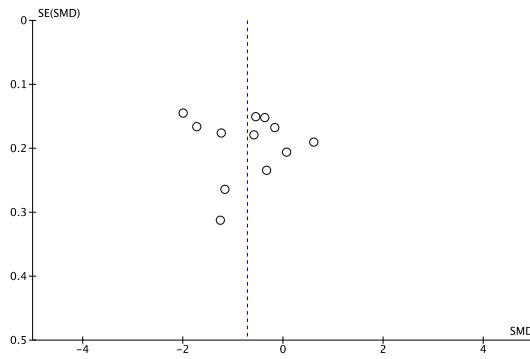
B



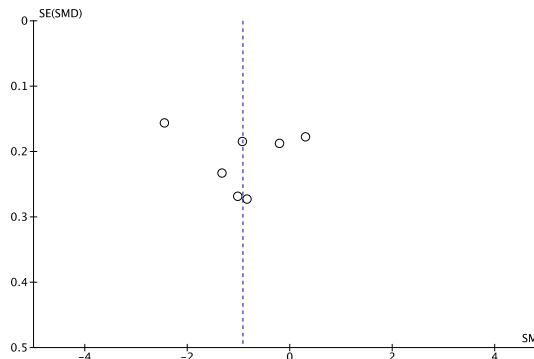
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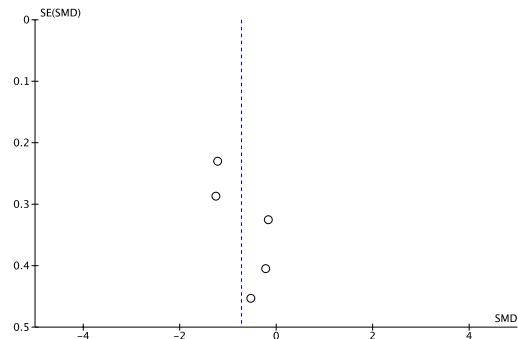
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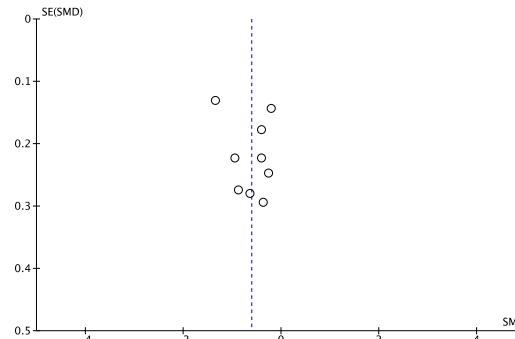
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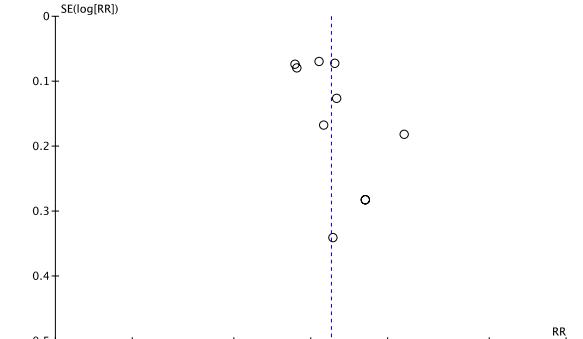
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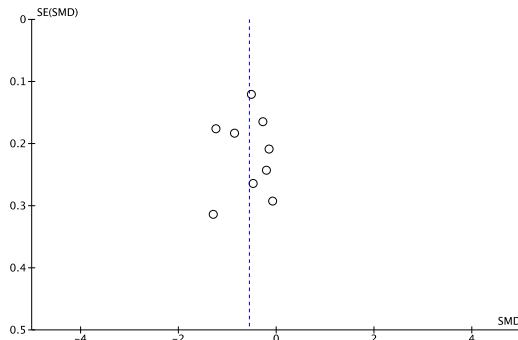
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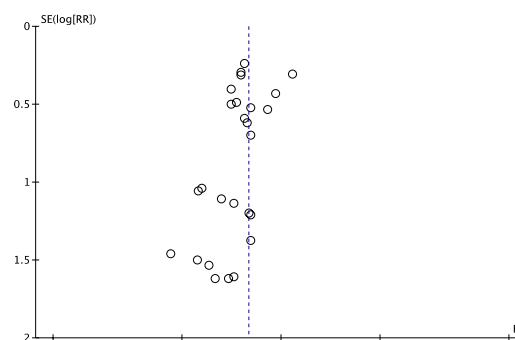
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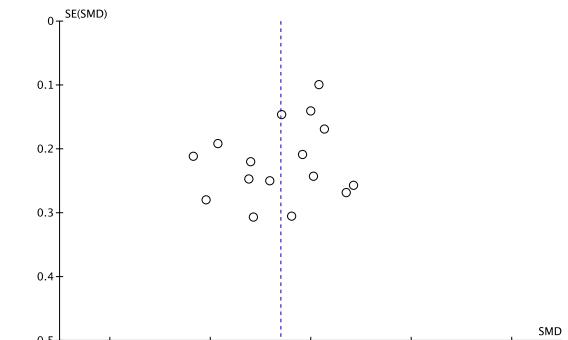
I



J



K



L

Appendix 5. Funnel plots for (A) overall improvement rate, (B) cough improvement rate, (C) dyspnea improvement rate, (D) fever improvement rate, (E) time needed for overall recovery, (F) time needed for recovery from cough, (G), time needed for recovery from dyspnea (H), time needed for recovery from fever, (I) RT-PCR conversion into negative, (J) time needed for RT-PCR conversion, (K), deterioration rate, and (L) hospital LoS.