

Favipiravir compared to Arbidol for patient with COVID-19 pneumonia

Bibliography: Chen C, et al. Favipiravir versus Arbidol for COVID-19: A Randomized Clinical Trial. medRxiv preprint^{1,2}

Certainty assessment							Summary of findings				
Participants (studies) Follow up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	Study event rates (%)		Relative effect (95% CI)	Anticipated absolute effects	
							With Arbidol	With Favipiravir		Risk with Arbidol	Risk difference with Favipiravir

Clinical recovery (follow up: mean 7 days; assessed with: >72hr recovery of body temp, respiratory rate, O2 saturation, cough relief)

236 (1 RCT) a,b	serious c,d,e	not serious	not serious ^f	serious ^g	none	⊕⊕○○ LOW	120 participants b	116 participants a	HR 1.29 (0.68 to 2.43) [Clinical recovery]	Moderate	
										500 per 1,000	91 more per 1,000 (from 124 fewer to 314 more)
										High	
									700 per 1,000	88 more per 1,000 (from 141 fewer to 246 more)	

Cough relief (follow up: mean 7 days)

122 (1 RCT)	serious c,d,e	not serious	not serious ^f	not serious	none	⊕⊕⊕○ MODERATE	65 participants	57 participants	HR 2.73 (1.75 to 4.27) [Cough relief]	High	
										700 per 1,000	263 more per 1,000 (from 178 more to 294 more)

Pyrexia relief (follow up: mean 7 days)

145 (1 RCT)	serious c,d,e	not serious	not serious ^f	not serious	none	⊕⊕⊕○ MODERATE	74 participants	71 participants	HR 2.42 (1.55 to 3.77) [Pyrexia relief]	High	
										700 per 1,000	246 more per 1,000 (from 145 more to 289 more)

Adverse event (Hyperuricemia) (follow up: mean 7 days)

236 (1 RCT)	serious c,d,e	not serious	not serious ^h	serious ⁱ	none	⊕⊕○○ LOW	3/120 (2.5%)	16/116 (13.8%)	RR 1.19 (0.95 to 1.45)	25 per 1,000	5 more per 1,000 (from 1 fewer to 11 more)
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Clinical recovery: non-severe (moderate) subgroup (follow up: mean 7 days)

209 (1 RCT)	very serious c,d,e,j	not serious	not serious ^f	serious ^k	none	⊕○○○ VERY LOW	62/111 (55.9%)	70/98 (71.4%)	RR 1.28 (1.04 to 1.57)	559 per 1,000	156 more per 1,000 (from 22 more to 318 more)
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CI: Confidence interval; **HR:** Hazard Ratio; **RR:** Risk ratio

Explanations

- severe or critical patients=9
- severe or critical patients=18
- Bias due to deviations from intended interventions (Cochrane RoB 2.0): High
- Bias arising from the randomization process (Cochrane RoB 2.0): Some concern
- No reason for missing cases (withdrew consent)
- Not rate down due to indirectness of the comparator (b/o dose of arbidol [200 mg, 3 times/day] recommended by the Chinese Guidelines may not be able to achieve an ideal therapeutic efficacy vs COVID-19.
- 95%CI includes both no effect and appreciable important benefit
- Not rate down for indirectness of patients (Ebola virus disease)
- 95%CI includes both no effect and harm (may not be exceeding MID)
- The subgroup analysis wasn't specified in the study protocol or trial registry (post hoc analysis)
- Not time-to-event, and 95%CIs overlap RR 1.25

References

- Chen C, et al. Favipiravir versus Arbidol for COVID-19: A Randomized Clinical Trial. medRxiv preprint, <https://www.medrxiv.org/content/10.1101/2020.03.17.20037432v4>; 2020.
- Chen, . .