Favipiravir vs Standard treatment for COVID-19

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Question: Should Favipiravir vs standard treatment be used for COVID-19?
Setting: Inpatient

№ of studies	**Study design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Favipiravir**	**Standard treatment**	**Relative (95% CI)**	**Absolute (95% CI)**	
SARS-CoV-2 clearance											
2 [1,2,a]	randomised trials	very serious [b]	not serious	not serious	very serious [c]	none	25/29 (86.2%)	28/30 (93.3%)	**RR 0.93** (0.75 to 1.16)	**65 fewer per 1.000** (from 233 fewer to 149 more)	⊕◯◯◯ VERY LOW
Number of patients with respiratory failure and respiratory distress syndrome											
1 [1]	randomised trials	very serious [d]	not serious	not serious	very serious [c]	none	4/9 (44.4%)	4/10 (40.0%)	**RR 1.11** (0.39 to 3.19)	**44 more per 1.000** (from 244 fewer to 876 more)	⊕◯◯◯ VERY LOW
Mortality any cause											
2 [1,2,a]	randomised trials	very serious [b]	not serious	not serious	very serious [e]	none					⊕◯◯◯ VERY LOW
Number of patients discharged at day 15											
1 [2]	randomised trials	very serious [g]	not serious	not serious	very serious [e]	none	13/20 (65.0%)	17/20 (85.0%)	**RR 0.76** (0.53 to 1.11)	**204 fewer per 1.000** (from 399 fewer to 94 more)	⊕◯◯◯ VERY LOW
Improvement in lung disease on CT											
1 [2]	randomised trials	very serious [f]	not serious	not serious	very serious [e]	none	18/20 (90.0%)	16/20 (80.0%)	**RR 1.13** (0.86 to 1.46)	**104 more per 1.000** (from 112 fewer to 368 more)	⊕◯◯◯ VERY LOW
Number of patients with serious adverse events											
1 [1]	randomised trials	very serious [d]	not serious	not serious	very serious [e]	none	4/9 (44.4%)	4/10 (40.0%)	**RR 1.11** (0.39 to 3.19	**44 more per 1.000** (from 244 fewer to 876 more)	⊕◯◯◯ VERY LOW

№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Favipiravir	Standard treatment	Relative (95% CI)	Absolute (95% CI)	
Number of patients with adverse events											
1 [2]	randomised trials	very serious [f]	not serious	not serious	very serious [e]	none	10/20 (50.0%)	5/20 (25.0%)	**RR 2.00** (0.83 to 4.81)	**250 more per 1.000** (from 43 fewer to 952 more)	⊕◯◯◯ VERY LOW

CI: Confidence interval; **RR:** Risk ratio

Explanations

a. In the study of Lou both groups receive standard treatment involving the administration of Lopinavir / Ritonavir or Darunavir / Cobicistat and Umifenovir, in combination with interferon α, in the Ivashchenko study we considered the group Favipiravir 1600/600mg
b. Downgraded of two levels for high risk of performance bias and unclear risk of selection bias in both studies and reporting bias at high risk in one study and unclear in the other
c. Downgraded of two levels for very low number of events and very small sample size
d. Downgraded of two levels for high risk of performance bias and unclear risk of selection bias and reporting bias
e. Downgraded of two levels for very small sample size
f. Downgraded of two levels for high risk of performance and reporting bias and unclear risk of selection bias

References

1. Lou Y, Liu L, Qiu Y. Clinical Outcomes and Plasma Concentrations of Baloxavir Marboxil and Favipiravir in COVID-19 Patients: an Exploratory Randomized, Controlled Trial. medRxiv. 2020:2020.04.29.20085761. https://doi.org/10.1101/2020.04.29.20085761.
2. Ivashchenko AA, Dmitriev KA, Vostokova NV, et al. AVIFAVIR for Treatment of Patients with Moderate COVID-19: Interim Results of a Phase II/III Multicenter Randomized Clinical Trial [published online ahead of print, 2020 Aug 9]. Clin Infect Dis. 2020;ciaa1176. doi:10.1093/cid/ciaa1176