

Table 5. GRADE Evidence Profile: In children with mild to moderate COVID-19, does treatment with remdesivir vs. no treatment result in better outcomes (e.g., time to symptom resolution, hospitalization, progression to severe or critical illness)?

Certainty assessment							№ of patients		Effect		Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	remdesivir	no remdesivir ^a	Relative (95% CI)	Absolute (95% CI)		
Hospitalization (all-cause) (follow-up: 28 days)												
1[Gottlieb 2022]	randomized trials	not serious	not serious	serious ^a	serious ^b	none	5/279 (1.8%)	0.5%	HR 0.28 (0.10 to 0.75)	4 fewer per 1,000 (from 4 fewer to 1 fewer)	⊕⊕○○ Low	CRITICAL
				serious ^a	very serious ^b			3.0%		22 fewer per 1,000 (from 27 fewer to 7 fewer)	⊕⊕○○ Low	
				not serious ^a	serious ^b			6.0%		43 fewer per 1,000 (from 54 fewer to 15 fewer)	⊕⊕⊕○ Moderate	
Covid-19-related medically attended visits (follow-up: 28 days)												
1[Gottlieb 2022]	randomized trials	not serious	not serious	not serious ^a	serious ^b	none	4/246 (1.6%)	21/252 (8.3%)	HR 0.19 (0.07 to 0.56)	67 fewer per 1,000 (from 77 fewer to 36 fewer)	⊕⊕⊕○ Moderate	IMPORTANT
Symptom alleviation												
1[Gottlieb 2022]	randomized trials	not serious	not serious	not serious ^a	serious ^b	none	23/66 (34.8%)	15/60 (25.0%)	RR 1.60 (0.74 to 3.48)	150 more per 1,000 (from 65 fewer to 620 more)	⊕⊕⊕○ Moderate	IMPORTANT
Serious adverse events												
4[Gottlieb 2022, Beigel 2020, Sise 2024, Spinner 2020]	randomized trials	not serious	not serious	not serious ^a	serious ^b	none	98/688 (14.2%)	77/612 (12.6%)	RR 0.78 (0.61 to 1.00)	28 fewer per 1,000 (from 49 fewer to 0 fewer)	⊕⊕⊕○ Moderate	CRITICAL

CI: confidence interval; HR: hazard ratio; RR: risk ratio

*For hospitalization, percentages represent illustrative baseline risks for patients without risk factors for progression to severe disease, patients at increased but not high risk, and patients at high risk.

Explanations

a. Most trial participants were adults and evidence in pediatric patients is limited, reducing applicability to children. In addition, key trials were conducted in the pre-Omicron era and largely among unvaccinated, high-risk outpatients; current baseline risks and hospitalization patterns have changed substantially, which may affect applicability—particularly for lower-risk populations where hospitalizations are now rarer and less specific to COVID-19. Because the trial populations closely match those at highest risk today, the panel did not further downgrade for baseline-risk differences in the highest-risk stratum but did downgrade for indirectness in lower-risk strata.

b. Few events do not meet the optimal information size and suggest fragility in the estimate. For the outcome of hospitalization: at baseline risks of 0.5%, the entire 95% CI of the absolute risk difference is within the no effect boundary and only fragility is present (rated down once); at baseline risk of 3%, the 95% CI of the absolute risk difference includes appreciable benefits as well little or no effect on hospitalization: rated down twice (but leaving the overall certainty at “low” due to borderline judgments in combination with the indirectness rating); at 6% baseline risk, the entire 95% CI of the absolute risk reduction is above the panel determination of minimally important difference (rated down once).