

**Supplementary Table S1.** Characteristics of the excluded patients in our cohort.

	TOTAL (n=140)	RMD (n=6)	SOT (n=12)	MOL (n=61)	NRM/r (n=61)	p-value
Sex (n, %)						0.842
-- Male	75 (50.4)	3 (50)	(52.9)	32 (52.4)	32 (42.5)	
-- Female	63 (49.6)	3 (50)	148 (47.1)	29 (57.6)	28 (57.5)	
Missing						
Age (median, IQR)	67.3 (53.8-79.7)	58.5 (43.2-70.5)	75.8 (58.1-81.1)	68.9 (57.3-79.9)	66.9 (50.3-75.6)	0.014
Vaccination (n, %)						
-- None	16 (11.9)	0	3 (25)	9 (20.4)	4 (6.9)	
-- One dose	2 (1.5)	0	0	1 (2.6)	1 (1.5)	
-- Full schedule	11 (8.2)	3 (50.0)	2 (16.7)	4 (21.3)	2 (3.5)	
-- Booster	105 (78.6)	3 (50.0)	7 (58.3)	44 (55.7)	51 (87.9)	<0.009
Time from symptoms onset to treatment (median days, IQR)	2 (2-3)	3.5 (1-4)	4.5 (3-6)	2 (2-3)	2 (1-3)	0.043
Obese (n, %)	34 (24.5)	1 (16.7)	4 (33.3)	17 (28.3)	12 (19.7)	0.582
CKD (n, %)	13 (9.3)	0	3 (25)	8 (14)	2 (3.3)	0.049
CHD (n, %)	75 (53.6)	3 (50)	10 (83.3)	31 (50.8)	31 (50.8)	0.206
Cancer (n, %)	20 (14.3)	3 (50)	1 (8.3)	7 (11.3)	9 (14.8)	0.075
COPD (n, %)	21 (14.9)	2 (33.3)	2 (16.7)	9 (14.1)	8 (13.1)	0.622
Cognitive impairment (n, %)	10 (7.1)	0	5 (41.7)	0	5 (8.2)	<0.001
Stroke (n, %)	6 (4.1)	1 (16.7)	1 (8.33)	1 (1.6)	3 (4.9)	0.289
Diabetes (n, %)	13 (9.6)	1 (16.7)	3 (25)	3 (4.9)	6 (9.8)	0.158
Immunocompromised (n, %)	37 (26.4)	2 (33.3)	4 (33.3)	10 (16.4)	21 (34.4)	0.147
Current or former smokers (n, %)	5 (3.3)	2 (33.3)	0	0	3 (4.9)	<0.001

Legend: RMD: remdesivir; SOT: sotrovimab; MOL: molnupiravir; NRM/r: nirmatrelvir/ritonavir; IQR: interquartile range; CKD: chronic kidney disease; CHD: chronic heart disease; COPD: chronic obstructive pulmonary disease.

**Supplementary Table S2.** Analysis of standardized differences showed good balance in baseline covariates between the four groups before and after weighting by inverse probability of treatment weighting.

Variable	Standardized Differences					
	SOT vs. RMD		MOL vs. RMD		NRM/r vs. RMD	
	Raw	Weighted	Raw	Weighted	Raw	Weighted
Sex	-0.23	0.04	-0.32	-0.15	-0.02	-0.09
Age (y)						
<45	-0.01	0.05	-0.21	-0.09	0.08	-0.09
45-54	0.05	0.05	-0.06	0.01	-0.13	-0.01
55-64	0.1	-0.01	0.13	0.03	0.08	0.25
65-74	-0.01	-0.01	-0.05	0.06	0.11	-0.05
>75	-0.09	-0.07	0.07	-0.02	0.02	-0.04
Vaccinated (2-3 doses)	-0.23	0.01	0.01	-0.18	0.37	-0.07
Time from symptoms onset to treatment	-0.01	0.05	-0.50	-0.06	-0.73	0.11
Obese	0.04	0.03	0.27	0.01	0.14	-0.01
CKD	0.31	0.09	0.09	0.19	-0.11	0.06
CHD	-0.13	-0.06	-0.01	-0.04	-0.16	-0.08

Cancer	-0.06	0.02	-0.41	0.09	-0.01	0.06
COPD	-0.05	-0.05	0.15	-0.07	-0.02	-0.11
Cognitive impairment	0.10	0.11	-0.17	0.04	0.16	-0.01
Diabetes	-0.09	0.07	-0.11	0.01	0.03	0.07
Immunocompromised	0.30	0.035	-0.56	-0.02	0.05	-0.03
Current or former smoker	-0.42	-0.05	-0.27	0.05	-0.41	-0.19

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Legend: RMD: remdesivir; SOT: sotrovimab; MOL: molnupiravir; NRM/r: nirmatrelvir/ritonavir; CKD: chronic kidney disease; CHD: chronic heart disease; COPD: chronic obstructive pulmonary disease.