Antiviral combination treatment for COVID-19 in immunocompromised patients: towards defining its place in therapy - Supplementary material

Authors

Chiara Sepulcri[1], Claudia Bartalucci[1], Elisa Balletto[2], Chiara Dentone[2], Federica Magné[2], Michele Mirabella[2], Silvia Dettori[2], Martina Bavastro[1,2], Carmen Di Grazia[3], Anna Maria Raiola[3], Massimiliano Gambella[3], Valentina Ricucci[4], Bianca Bruzzone[4], Sabrina Beltramini[5], Emanuele Angelucci[3], Matteo Bassetti[1,2], Malgorzata Mikulska[1,2]

[1] Division of Infectious Diseases, Department of Health Sciences (DISSAL), University of Genova, Genova, Italy.

[2] IRCCS Ospedale Policlinico San Martino, Genova, Italy.

[3] Ematologia e Terapie Cellulari, IRCCS Ospedale Policlinico San Martino, Genova, Italy

[4] Hygiene Unit, IRCCS Ospedale Policlinico San Martino, Genova, Italy.

[5] Pharmacy Unit, IRCCS Ospedale Policlinico San Martino, Genova, Italy.

Corresponding author:

Malgorzata Mikulska,

Infectious Diseases Unit, Policlinico San Martino

L.go R. Benzi, 10, 16132, Genoa, Italy

email: m.mikulska@unige.it

Supplementary Table S1.

Variants and subvariants available for 41 patients. Next-generation whole genome sequencing was performed with Illumina MySeq.

Variant	Subvariant	Frequency
AY	AY.122	1
BA	BA.2	1
	BA.5.2.1	1
	BA.5.2.20	1
BF	BF.7	3
	BF.7.19	1
BN	BN.1.3	1
BQ	BQ.1	2
	BQ.1.1	4
	BQ.1.1.13	1
	BQ.1.1.67	1
EG	EG.1	2
	EG.5.1.1	2
FE	FE.1.2	2
FL	FL.10	1
GK	GK.1.1	1
GS	GS.4.1	1
HK	HK.11.1	1
JG	JG.1	1
JN	JN.1	1
XBB	XBB.1	1
	XBB.1.16	1
	XBB.1.16.11	1
	XBB.1.22	1
	XBB.1.33	1
	XBB.1.5.15	1
	XBB.1.5.48	1
	XBB.1.9.1	2
	XBB.1.9.2	1
	XBB.2.3.11	1
	XBB.2.3.3	1

Supplementary Table S2.

Predictors of time to first negative swab in Group 1 (prolonged/relapsed infection), with higher HR indicating shorter time to the first negative result

Group 1 – Total events n=36 (negative during follow-up) Median time to first negative swab 7 days (IQR 5-9)	**Univariate analysis hazard ratio (CI 95%), p**
Age	0.99 (0.96-1.02), 0.459
Gender – Male vs Female	0.78 (0.38-1.56), 0.477
O_2 need, Yes vs No	0.62 (0.31-1.26), 0.190
Vaccinated, Yes vs No	2.59 (0.61-10.92), 0.195
N. of doses	1.10 (0.82-1.45), 0.541
Anti-CD20 treatment in the previous 6 months, Yes vs No	1.10 (0.57-2.14), 0.779
NHL/CLL vs Other	1.02 (0.50-2.10), 0.949
HSCT/CAR-T, Yes vs No	0.80 (0.40-1.61), 0.539
Median time from HSCT/CAR-T to COVID-19, months; median (IQR), success Yes vs No	1.00 (0.97-1.03), 0.955
Previous early antiviral monotherapy treatment, Yes vs No	1.03 (0.93-1.15), 0.530
Oral antiviral duration (5 days vs >10 days)	0.36 (0.08-1.54), 0.168
Pulmonary superinfection, Yes vs No	1.08 (0.50-2.31), 0.848

NHL, non-Hodgkin lymphoma; CLL, chronic lymphocytic leukaemia; HSCT, hematopoietic stem cell transplantation; CAR-T, Chimeric antigen receptor T-cell

Supplementary Table S3. Univariate for predictors of success at day 30 in Group 1 (prolonged/relapsed infection)

Group 1 – Success 30 days **Total n=35/43 (81.4%)**	**Univariate analysis**	**p**
Age, years; median (IQR), success Yes vs No	67 (56-70) vs 72 (62-77)	0.206
Gender – Female vs Male, n (%)	10/14 (71.4) vs 25/29 (86.2)	0.404
O_2 need, Yes vs No, n (%)	13/17 (76.5) vs 22/26 (84.6)	0.692
Vaccinated, Yes vs No, n (%)	32/37 (86.5) vs 2/3 (66.7)	0.394
N. of doses, median (IQR), success Yes vs No	3 (3-4) vs 3 (3-4)	0.806
Anti-CD20 last 6 months, Yes vs No, n (%)	16/19 (84.2) vs 19/24 (79.2)	1.000
NHL/CLL vs Other, n (%)	25/30 (83.3) vs 10/13 (76.9)	0.681
HSCT/CAR-T, Yes vs No, n (%)	14/15 (93.3) vs 21/18 (75)	0.226
Median time from HSCT/CAR-T to COVID-19, months; median (IQR), success Yes vs No	9.31 (0.5-82.4) vs 8 (8-8)	1.000
Previous early antiviral monotherapy treatment, Yes vs No, n (%)	24/29 (82.8) vs 11/14 (78.6)	1.000
Oral antiviral duration (5 days vs >10 days)	2/4 (50) vs 33/39 (84.6)	0.090
Pulmonary superinfection, Yes vs No, n (%)	10/11 (90.9) vs 25/32 (78.1)	0.656

IQR, interquartile range; NHL, non-Hodgkin lymphoma; CLL, chronic lymphocytic leukaemia; HSCT, hematopoietic stem cell transplantation; CAR-T, Chimeric antigen receptor T-cell;