

Suppl. Table 4 Association of abnormal liver test results with severity of the COVID-19 infection adjusted for gender and Charlson comorbidity index

	ICU admission			COVID-19-related death			Composite endpoint of severe outcome ¹		
	OR	95 % CI	p	OR	95 % CI	p	OR	95 % CI	p
Liver biochemistry abnormality²	3.12	1.66-5.85	< 0.001 *	1.14	0.49-2.64	0.76	2.43	1.34-4.41	0.003 *
AST elevation	3.44	1.83-6.47	< 0.001 *	0.86	0.37-2.00	0.72	2.50	1.37-4.55	0.003 *
ALT elevation	2.54	1.34-4.83	0.004 *	0.69	0.26-1.87	0.47	1.79	0.96-3.33	0.069
TBIL elevation	0.80	0.20-3.28	0.76	4.22	1.06-16.79	0.041 *	1.44	0.39-5.25	0.58
GGT elevation	2.13	1.17-3.89	0.014 *	1.22	0.51-2.90	0.66	1.53	0.86-2.74	0.15
Hypoalbuminemia	12.09	5.59-26.17	< 0.001 *	2.69	1.05-6.90	0.040 *	10.75	5.00-23.11	< 0.001 *
Hypoalbuminemia and any liver biochemistry abnormality	21.08	8.26-53.76	< 0.001 *	2.82	1.12-7.10	0.028 *	19.81	7.59-51.69	< 0.001 *
Hypoalbuminemia and AST elevation	38.90	12.03-125.80	< 0.001 *	2.34	0.95-5.75	0.06	40.06	11.09-144.76	< 0.001 *
Hypoalbuminemia and ALT elevation	17.05	4.70-61.88	< 0.001 *	1.55	0.50-4.84	0.45	13.24	3.68-47.60	< 0.001 *
Hypoalbuminemia and TBIL elevation	2.38	0.36-15.68	0.37	10.61	1.58-71.40	0.015 *	5.22	0.54-50.41	0.15
Hypoalbuminemia and GGT elevation	41.83	9.13-191.63	< 0.001 *	2.76	1.00-7.67	0.051	29.22	6.55-130.37	< 0.001 *

Stated are the odds ratios (OR) for liver biochemistry parameters at admission (adjustment for gender and Charlson comorbidity index).

¹ The composite endpoint is comprised of ICU admission and/or COVID-19-related death. ² Liver biochemistry abnormalities included ALT, AST, GGT, ALP and TBIL but not albumin. Abbreviations: ALP: Alkaline phosphatase; ALT: Alanine aminotransferase; AST: Aspartate aminotransferase; CI: Confidence interval; COVID-19: Coronavirus Disease 2019; GGT: Gamma-glutamyltransferase; TBIL: Total bilirubin. * shows a statistical significance (p<0.05).