

SUPPLEMENTARY TABLES

Supplementary Table 1. Odds ratios for developing LC-19 based on different comorbidities conducted on the basis of disaggregation by sex and with both sexes included. COPD is chronic obstructive pulmonary disease, AH is arterial hypertension, ICM is ischemic cardiomyopathy, DM is diabetes mellitus and RI is renal insufficiency

	Both sex crude OR[95%CI]	Male patients crude OR[95%CI]	Female patients crude OR[95%CI]
Dementia	0.22 [0.11, 0.44]	0.2 [0.05,0.82]	0.21 [0.09,0.47]
COPD	0.7 [0.52, 0.94]	0.76 [0.53,1.11]	0.75 [0.47,1.19]
Depression	1.35 [1.23, 1.48]	1.03 [0.84,1.27]	1.33 [1.2,1.48]
AH	0.83 [0.76, 0.91]	0.9 [0.78,1.03]	0.8 [0.71,0.9]
DM	0.85 [0.74, 0.96]	0.89 [0.74,1.08]	0.85 [0.71,1.01]
Sex - Female	1.43 [1.34, 1.52]	-	-
Osteoarthritis	1.13 [1, 1.27]	1.01 [0.79,1.28]	1.09 [0.95,1.26]
Arthritis	1.19 [0.95, 1.51]	0.98 [0.62,1.54]	1.24 [0.94,1.63]
Osteoporosis	0.85 [0.7, 1.04]	0.41 [0.1,1.64]	0.75 [0.61,0.92]
Cirrhosis	1.09 [0.88, 1.33]	1.13 [0.84,1.53]	1.11 [0.83,1.47]
RI	0.84 [0.66, 1.07]	0.87 [0.61,1.24]	0.85 [0.62,1.18]
Heart failure	0.58 [0.4, 0.86]	0.58 [0.31,1.09]	0.58 [0.36,0.96]
Stroke	0.67 [0.48, 0.93]	0.46 [0.25,0.83]	0.86 [0.58,1.27]
Obesity	1.18 [1.07, 1.3]	1.07 [0.9,1.27]	1.2 [1.07,1.36]
Asthma	1.14 [1.03, 1.25]	1.18 [1.01,1.38]	1.1 [0.97,1.24]
ICM	0.72 [0.56, 0.94]	0.91 [0.67,1.25]	0.58 [0.36,0.94]

Supplementary Table 2. Odds ratios for developing LC-19 based on acute-phase COVID-19 symptoms conducted on the basis of disaggregation by sex and with both sexes included.

	Both sex crude OR [95% CI]	Male patients crude OR [95% CI]	Female patients crude OR [95% CI]
Chest pain	3.732 [3.421, 4.072]	3.71 [3.19, 4.32]	3.59 [3.23, 4]
Muscle pain	2.271 [2.139, 2.412]	1.99 [1.81, 2.2]	2.4 [2.22, 2.59]
Cough	3.22 [3.012, 3.443]	2.93 [2.62, 3.28]	3.33 [3.06, 3.62]
Lack of appetite	3.746 [3.411, 4.115]	3.42 [2.88, 4.06]	3.73 [3.33, 4.17]
Sleep problems	4.497 [4.076, 4.962]	4.08 [3.42, 4.86]	4.55 [4.04, 5.12]
Nasal congestion	1.299 [1.218, 1.385]	1.24 [1.12, 1.39]	1.28 [1.18, 1.39]
Dyspnea	5.806 [5.205, 6.476]	6.25 [5.19, 7.53]	5.37 [4.69, 6.15]
Rhinorrhoea	1.263 [1.186, 1.344]	1.22 [1.1, 1.35]	1.26 [1.16, 1.36]
Low grade fever	1.174 [1.06, 1.301]	1.04 [0.87, 1.24]	1.25 [1.11, 1.42]
Dizziness	3.665 [3.338, 4.024]	3.53 [2.98, 4.17]	3.56 [3.18, 3.98]
Hyposmia	2.881 [2.702, 3.072]	2.54 [2.28, 2.84]	2.99 [2.76, 3.23]
Hypogeusia	2.882 [2.699, 3.077]	2.53 [2.26, 2.83]	2.99 [2.76, 3.25]
Headache	2.245 [2.115, 2.384]	1.97 [1.78, 2.17]	2.35 [2.17, 2.53]
Tired	4.329 [4.015, 4.667]	4.2 [3.69, 4.78]	4.24 [3.86, 4.65]
Eye symptoms	3.538 [2.893, 4.328]	3.26 [2.27, 4.68]	3.55 [2.79, 4.53]
Expectorate	2.081 [1.924, 2.252]	2.25 [1.98, 2.55]	1.95 [1.76, 2.15]
Fever	1.303 [1.201, 1.413]	1.38 [1.22, 1.57]	1.27 [1.14, 1.41]
Sore throat	1.4867 [1.3954, 1.584]	1.34 [1.2, 1.49]	1.52 [1.41, 1.65]
Stomach pain	3.233 [2.94, 3.555]	2.92 [2.46, 3.48]	3.24 [2.89, 3.63]
Vomit	2.647 [2.342, 2.992]	2.17 [1.71, 2.76]	2.73 [2.36, 3.14]
Nasal discharge	2.514 [2.151, 2.939]	2.09 [1.58, 2.76]	2.73 [2.26, 3.29]
Chills	2.45 [2.266, 2.649]	2.5 [2.2, 2.83]	2.38 [2.16, 2.63]
Rash	3.855 [3.208, 4.631]	3.17 [2.22, 4.52]	4 [3.23, 4.96]
Malaise	2.929 [2.113, 4.059]	2.08 [1.07, 4.05]	3.24 [2.23, 4.72]

Supplementary Table 3. Odds ratio for suffering each categorisation of LC-19 with and without sex-disaggregated.

	Acute post-COVID crude OR [95% CI]	Long post-COVID crude OR [95% CI]	Persistent post-COVID crude OR [95% CI]	LC-19 crude OR [95% CI]
Hosp vs No Hosp	10.99 [9.65, 12.52]	1.36 [0.96, 1.93]	1.19 [1.01, 1.42]	2.99 [2.72, 3.28]
Female - Hosp vs No Hosp	8.65 [7.22, 10.36]	1.16 [0.69, 1.95]	1.47 [1.19, 1.81]	2.81 [2.46, 3.2]
Male - Hosp vs No Hosp	15.99 [13.15, 19.44]	1.65 [1.02, 2.67]	0.92 [0.69, 1.24]	3.4 [2.96, 3.9]

Supplementary Table 4. ORs and 95% CIs table of vaccination differences for non LC-19 and LC-19 patients.

	crude OR [95%]
No vaccinated (Ref) vs Vaccinated	0.11[0.10, 0.12]
COVID-19 viral-based vaccine (Ref) vs mRNA-based vaccine	0.32 [0.25, 0.41]
2 COVID viral-based vaccine doses (Ref) vs COVID viral-based dose + mRNA-based dose	0.28 [0.14, 0.55]
2 mRNA-based vaccine doses (Ref) vs COVID viral-based dose + mRNA-based dose	0.86 [0.46, 1.62]
No. of doses	
0 (Ref) vs	-
1	0.24 [0.19, 0.31]
2	0.11 [0.10, 0.12]
3	0.05 [0.04, 0.08]
1 (Ref) vs	-
2	0.45 [0.34, 0.59]
3	0.22 [0.15, 0.34]
2 (Ref) vs	-
3	0.50 [0.35, 0.71]

Supplementary Table 5. Adjusted odds ratios and 95% confidence intervals (AOR [95% CI]) for various vaccination schedules against LC-19. Vaccination schedules are represented by combinations of letters that reflects the order in which the vaccines were administered to participants. With A for AstraZeneca, P for Pfizer, M for Moderna, and J for Janssen vaccines.

	Comparative vaccination schedule															
		No vac.	P	M	A	J	P+P	M+M	A+A	J+P	J+M	P+P+P	P+P+M	M+M+M	A+A+P	A+A+M
Reference vaccination schedule	No vac.	-	0.25 [0.18, 0.34]	0.11 [0.03, 0.33]	0.64 [0.35, 1.17]	0.2 [0.12, 0.34]	0.09 [0.08, 0.11]	0.09 [0.06, 0.12]	0.26 [0.2, 0.34]	0.11 [0.03, 0.43]	0.04 [0.02, 0.11]	0.05 [0.02, 0.12]	0.04 [0.02, 0.06]	0.05 [0.01, 0.19]	0.18 [0.06, 0.56]	0.06 [0.03, 0.12]
	P	4.01 [2.91, 5.53]	-	0.29 [0.09, 0.95]	0.83 [0.39, 1.77]	0.41 [0.22, 0.78]	0.27 [0.18, 0.39]	0.24 [0.15, 0.38]	0.71 [0.43, 1.19]	0.2 [0.05, 0.86]	0.07 [0.02, 0.2]	0.05 [0.02, 0.14]	0.04 [0.02, 0.08]	0.05 [0.01, 0.21]	0.2 [0.06, 0.67]	0.07 [0.03, 0.16]
	M	9.35 [3.01, 29.04]	3.42 [1.05, 11.15]	-	6.75 [1.47, 30.93]	2.29 [0.6, 8.78]	0.82 [0.26, 2.56]	0.81 [0.25, 2.62]	3.36 [1.02, 11.01]	0.91 [0.13, 6.61]	0.28 [0.06, 1.45]	0.77 [0.13, 4.5]	0.39 [0.09, 1.73]	0.88 [0.09, 8.53]	1.72 [0.17, 17.41]	0.34 [0.06, 1.81]
	A	1.56 [0.86, 2.83]	1.2 [0.57, 2.55]	0.15 [0.03, 0.68]	-	0.3 [0.13, 0.7]	0.17 [0.09, 0.32]	0.14 [0.07, 0.31]	0.35 [0.18, 0.68]	0.17 [0.04, 0.79]	0.07 [0.02, 0.22]	0.09 [0.03, 0.25]	0.06 [0.03, 0.13]	0.08 [0.02, 0.35]	0.28 [0.08, 1.03]	0.1 [0.04, 0.23]
	J	4.96 [2.93, 8.39]	2.43 [1.28, 4.63]	0.44 [0.11, 1.68]	3.32 [1.43, 7.72]	-	0.48 [0.28, 0.83]	0.43 [0.23, 0.81]	1.3 [0.72, 2.34]	0.53 [0.12, 2.35]	0.19 [0.06, 0.59]	0.31 [0.1, 0.93]	0.19 [0.08, 0.45]	0.3 [0.06, 1.38]	1.01 [0.26, 3.94]	0.28 [0.11, 0.71]
	P+P	10.72 [9.3, 12.35]	3.74 [2.58, 5.42]	1.23 [0.39, 3.84]	5.87 [3.14, 10.97]	2.07 [1.2, 3.57]	-	0.97 [0.69, 1.36]	2.71 [2.01, 3.64]	1.09 [0.27, 4.39]	0.4 [0.15, 1.08]	0.45 [0.18, 1.11]	0.31 [0.17, 0.55]	0.41 [0.1, 1.65]	1.57 [0.49, 4.96]	0.55 [0.28, 1.1]
	M+M	11.5 [8.45, 15.65]	4.18 [2.65, 6.61]	1.24 [0.38, 4.01]	6.97 [3.23, 15.08]	2.33 [1.23, 4.42]	1.03 [0.74, 1.45]	-	3.57 [2.31, 5.5]	1.17 [0.28, 4.92]	0.43 [0.15, 1.22]	0.6 [0.21, 1.72]	0.39 [0.18, 0.83]	0.52 [0.11, 2.33]	1.83 [0.51, 6.53]	0.6 [0.26, 1.37]
	A+A	3.8 [2.95, 4.89]	1.4 [0.84, 2.34]	0.3 [0.09, 0.98]	2.82 [1.47, 5.43]	0.77 [0.43, 1.38]	0.37 [0.27, 0.5]	0.28 [0.18, 0.43]	-	0.42 [0.1, 1.7]	0.16 [0.06, 0.43]	0.26 [0.1, 0.65]	0.17 [0.09, 0.31]	0.23 [0.06, 0.94]	0.88 [0.27, 2.87]	0.28 [0.14, 0.57]

	J+P	9.27 [2.31, 37.15]	4.88 [1.17, 20.42]	1.09 [0.15, 7.91]	5.98 [1.26, 28.34]	1.88 [0.43, 8.35]	0.92 [0.23, 3.71]	0.86 [0.2, 3.6]	2.41 [0.59, 9.87]	-	0.29 [0.05, 1.69]	0.57 [0.1, 3.13]	0.35 [0.07, 1.69]	0.59 [0.08, 4.38]	1.13 [0.09, 13.64]	0.27 [0.04, 1.91]
	J+M	24.83 [9.31, 66.24]	14.19 [4.99, 40.37]	3.51 [0.69, 17.87]	14.85 [4.47, 49.31]	5.15 [1.69, 15.76]	2.5 [0.93, 6.74]	2.35 [0.82, 6.72]	6.36 [2.31, 17.53]	3.44 [0.59, 19.99]	-	1.34 [0.33, 5.5]	0.87 [0.26, 2.89]	1.19 [0.18, 7.65]	2.43 [0.38, 15.69]	0.78 [0.19, 3.2]
	P+P+P	19.24 [8.01, 46.19]	19.83 [6.9, 57]	1.3 [0.22, 7.6]	11.73 [4.01, 34.27]	3.21 [1.08, 9.58]	2.23 [0.9, 5.55]	1.68 [0.58, 4.84]	3.86 [1.53, 9.73]	1.75 [0.32, 9.59]	0.75 [0.18, 3.05]	-	0.7 [0.25, 1.95]	0.87 [0.17, 4.52]	3.49 [0.83, 14.65]	1.23 [0.41, 3.74]
	P+P+M	27.62 [16.32, 46.73]	26.75 [12.28, 58.26]	2.56 [0.58, 11.35]	17.29 [7.7, 38.79]	5.17 [2.22, 12.01]	3.24 [1.82, 5.76]	2.58 [1.2, 5.54]	5.88 [3.23, 10.72]	2.83 [0.59, 13.46]	1.15 [0.35, 3.84]	1.43 [0.51, 3.97]	-	1.23 [0.28, 5.42]	4.76 [1.36, 16.69]	1.79 [0.76, 4.21]
	M+M+M	21.46 [5.39, 85.43]	21.52 [4.86, 95.27]	1.13 [0.12, 10.95]	13.16 [2.9, 59.79]	3.37 [0.73, 15.65]	2.46 [0.6, 10.04]	1.94 [0.43, 8.75]	4.4 [1.07, 18.15]	1.71 [0.23, 12.75]	0.84 [0.13, 5.42]	1.14 [0.22, 5.91]	0.82 [0.18, 3.6]	-	3.95 [0.65, 23.91]	1.41 [0.3, 6.59]
	A+A+P	5.59 [1.8, 17.37]	5.07 [1.48, 17.28]	0.58 [0.06, 5.88]	3.54 [0.98, 12.87]	0.99 [0.25, 3.83]	0.64 [0.2, 2.02]	0.55 [0.15, 1.94]	1.13 [0.35, 3.67]	0.89 [0.07, 10.76]	0.41 [0.06, 2.65]	0.29 [0.07, 1.2]	0.21 [0.06, 0.74]	0.25 [0.04, 1.53]	-	0.37 [0.1, 1.38]
	A+A+M	15.87 [8.25, 30.53]	14.19 [6.41, 31.39]	2.93 [0.55, 15.56]	10.42 [4.29, 25.29]	3.58 [1.4, 9.18]	1.81 [0.91, 3.58]	1.68 [0.73, 3.86]	3.56 [1.75, 7.27]	3.72 [0.52, 26.55]	1.28 [0.31, 5.25]	0.81 [0.27, 2.46]	0.56 [0.24, 1.31]	0.71 [0.15, 3.33]	2.7 [0.73, 10.01]	-

Supplementary Table 6. Odds ratios and 95% confidence intervals (OR [95% CI]) for various vaccination schedules against LC-19. Vaccination schedules are represented by combinations of letters that reflects the order in which the vaccines were administered to participants. With A for AstraZeneca, P for Pfizer, M for Moderna, and J for Janssen vaccines.

	Comparative vaccination schedule															
		No vac.	P	M	A	J	P+P	M+M	A+A	J+P	J+M	P+P+P	P+P+M	M+M+M	A+A+P	A+A+M
Reference vaccination schedule	No vac.	-	0.23 [0.17, 0.32]	0.11 [0.03, 0.33]	0.71 [0.39, 1.28]	0.2 [0.12, 0.35]	0.1 [0.08, 0.11]	0.09 [0.06, 0.12]	0.29 [0.22, 0.37]	0.11 [0.03, 0.45]	0.04 [0.02, 0.11]	0.06 [0.02, 0.14]	0.04 [0.02, 0.07]	0.05 [0.01, 0.21]	0.2 [0.06, 0.61]	0.07 [0.04, 0.14]
	P	4.29 [3.11, 5.91]	-	0.45 [0.14, 1.47]	3.03 [1.54, 5.96]	0.88 [0.48, 1.62]	0.41 [0.29, 0.58]	0.38 [0.24, 0.59]	1.23 [0.82, 1.85]	0.48 [0.12, 2.01]	0.18 [0.06, 0.51]	0.25 [0.1, 0.64]	0.18 [0.1, 0.33]	0.22 [0.05, 0.92]	0.85 [0.26, 2.75]	0.3 [0.15, 0.62]
	M	9.49 [3.05, 29.47]	2.21 [0.68, 7.18]	-	6.7 [1.86, 24.12]	1.94 [0.56, 6.77]	0.9 [0.29, 2.83]	0.83 [0.26, 2.69]	2.73 [0.86, 8.71]	1.07 [0.18, 6.42]	0.4 [0.09, 1.79]	0.55 [0.13, 2.33]	0.39 [0.11, 1.37]	0.49 [0.08, 2.95]	1.87 [0.38, 9.31]	0.67 [0.18, 2.47]
	A	1.42 [0.78, 2.57]	0.33 [0.17, 0.65]	0.15 [0.04, 0.54]	-	0.29 [0.13, 0.64]	0.13 [0.07, 0.25]	0.12 [0.06, 0.24]	0.41 [0.21, 0.78]	0.16 [0.04, 0.72]	0.06 [0.02, 0.19]	0.08 [0.03, 0.24]	0.06 [0.03, 0.13]	0.07 [0.02, 0.33]	0.28 [0.08, 1.01]	0.1 [0.04, 0.24]
	J	4.88 [2.89, 8.26]	1.14 [0.62, 2.1]	0.51 [0.15, 1.79]	3.45 [1.56, 7.64]	-	0.46 [0.27, 0.8]	0.43 [0.23, 0.79]	1.41 [0.79, 2.51]	0.55 [0.12, 2.43]	0.21 [0.07, 0.63]	0.29 [0.1, 0.79]	0.2 [0.1, 0.42]	0.25 [0.06, 1.12]	0.96 [0.28, 3.36]	0.34 [0.15, 0.79]
	P+P	10.51 [9.12, 12.11]	2.45 [1.73, 3.47]	1.11 [0.35, 3.47]	7.43 [4.03, 13.69]	2.15 [1.25, 3.7]	-	0.92 [0.66, 1.29]	3.03 [2.27, 4.02]	1.19 [0.29, 4.78]	0.44 [0.17, 1.2]	0.61 [0.25, 1.49]	0.44 [0.25, 0.75]	0.55 [0.14, 2.2]	2.07 [0.66, 6.5]	0.74 [0.38, 1.44]
	M+M	11.4 [8.38, 15.51]	2.66 [1.71, 4.14]	1.2 [0.37, 3.89]	8.06 [4.12, 15.74]	2.33 [1.27, 4.29]	1.08 [0.78, 1.52]	-	3.28 [2.21, 4.87]	1.29 [0.31, 5.33]	0.48 [0.17, 1.35]	0.67 [0.26, 1.69]	0.47 [0.26, 0.87]	0.59 [0.14, 2.45]	2.25 [0.69, 7.29]	0.8 [0.39, 1.65]
	A+A	3.47 [2.7, 4.47]	0.81 [0.54, 1.21]	0.37 [0.11, 1.17]	2.45 [1.29, 4.68]	0.71 [0.4, 1.27]	0.33 [0.25, 0.44]	0.3 [0.21, 0.45]	-	0.39 [0.1, 1.61]	0.15 [0.05, 0.4]	0.2 [0.08, 0.51]	0.14 [0.08, 0.26]	0.18 [0.04, 0.74]	0.69 [0.21, 2.19]	0.24 [0.12, 0.49]

	J+P	8.86 [2.21, 35.5]	2.07 [0.5, 8.58]	0.93 [0.16, 5.6]	6.26 [1.38, 28.35]	1.81 [0.41, 8]	0.84 [0.21, 3.4]	0.78 [0.19, 3.22]	2.55 [0.62, 10.45]	-	0.37 [0.07, 2.05]	0.52 [0.1, 2.68]	0.37 [0.08, 1.62]	0.46 [0.06, 3.27]	1.75 [0.29, 10.5]	0.62 [0.13, 2.89]
	J+M	23.65 [8.87, 63.08]	5.52 [1.97, 15.46]	2.49 [0.56, 11.15]	16.72 [5.31, 52.65]	4.84 [1.59, 14.73]	2.25 [0.84, 6.06]	2.08 [0.74, 5.8]	6.81 [2.48, 18.73]	2.67 [0.49, 14.6]	-	1.38 [0.37, 5.16]	0.98 [0.32, 2.98]	1.23 [0.22, 6.71]	4.67 [1.04, 20.91]	1.66 [0.51, 5.4]
	P+P+P	17.1 [7.12, 41.03]	3.99 [1.57, 10.14]	1.8 [0.43, 7.55]	12.08 [4.18, 34.89]	3.5 [1.26, 9.73]	1.63 [0.67, 3.95]	1.5 [0.59, 3.8]	4.92 [1.98, 12.25]	1.93 [0.37, 9.97]	0.72 [0.19, 2.69]	-	0.71 [0.25, 1.97]	0.89 [0.17, 4.58]	3.37 [0.8, 14.16]	1.2 [0.4, 3.59]
	P+P+M	24.14 [14.28, 40.8]	5.63 [3.05, 10.39]	2.54 [0.73, 8.87]	17.06 [7.71, 37.72]	4.94 [2.35, 10.38]	2.3 [1.34, 3.95]	2.12 [1.15, 3.89]	6.95 [3.89, 12.42]	2.72 [0.62, 12.01]	1.02 [0.34, 3.1]	1.41 [0.51, 3.92]	-	1.25 [0.28, 5.52]	4.76 [1.37, 16.62]	1.7 [0.73, 3.92]
	M+M+M	19.26 [4.84, 76.67]	4.49 [1.08, 18.63]	2.03 [0.34, 12.17]	13.61 [3.01, 61.58]	3.94 [0.9, 17.38]	1.83 [0.45, 7.39]	1.69 [0.41, 6.99]	5.55 [1.36, 22.69]	2.17 [0.31, 15.46]	0.81 [0.15, 4.45]	1.13 [0.22, 5.81]	0.8 [0.18, 3.51]	-	3.8 [0.63, 22.81]	1.35 [0.29, 6.27]
	A+A+P	5.07 [1.63, 15.74]	1.18 [0.36, 3.84]	0.53 [0.11, 2.65]	3.58 [0.99, 12.89]	1.04 [0.3, 3.62]	0.48 [0.15, 1.51]	0.44 [0.14, 1.44]	1.46 [0.46, 4.66]	0.57 [0.1, 3.43]	0.21 [0.05, 0.96]	0.3 [0.07, 1.24]	0.21 [0.06, 0.73]	0.26 [0.04, 1.58]	-	0.36 [0.1, 1.32]
	A+A+M	14.23 [7.4, 27.37]	3.32 [1.6, 6.87]	1.5 [0.41, 5.55]	10.06 [4.15, 24.36]	2.91 [1.26, 6.74]	1.35 [0.69, 2.64]	1.25 [0.61, 2.57]	4.1 [2.03, 8.25]	1.61 [0.35, 7.45]	0.6 [0.19, 1.95]	0.83 [0.28, 2.49]	0.59 [0.26, 1.36]	0.74 [0.16, 3.42]	2.81 [0.76, 10.4]	-