

Supplementary Table 1. Means and medians of serologic response, post third vaccination, in CLL patients

Variable	Categories	Serologic response (AU/mL)			
		Mean	Median	Interquartile range	p-value
All patients		1066.7	2.0	0.0-40.8	
Age in time of vaccination (y)	≤65	2169.9	12.0	0.0-422	0.034
	>65	804.8	1.0	0.0-33.0	
Sex	Females	873.2	3.0	0.0-58.0	0.765
	Males	1148.3	1.0	0.0-40.2	
Treatment status (detailed)	Treatment-naïve	821.0	8.0	0.3-509.8	<0.001
	On-therapy	225.0	0.0	0.0-10.3	
	Off-therapy	4004.4	6.0	0.0-764.5	
Treatment status (dichotomized)	Lack of active therapy	2235.8	6.0	0.0-561.5	<0.001
	On-therapy	225.0	0.0	0.0-10.3	
Binet stage	A	1383.2	40	3.0-600.8	0.058
	B or C	244.9	3.0	0.0-110.0	
IGHV	Mutated	2540.0	0.0	0.0-34.5	0.878
	Unmutated	488.8	1.0	0.0-18.0	
FISH test	Normal	252.0	4.0	0.0-49.0	0.571
	del(13q)	1300.5	0.02	0.0-32.8	
	Trisomy 12	2856.1	0.0	0.0-18.0	
	del(11q)	814.9	2.0	0.0-17.8	
	del(17p)	575.0	0.5	0.0-38.0	
Treatment protocol	BTKi	183.5	0.0	0.0-21.0	0.226
	Venetoclax± anti-CD20 antibody	299.3	0.0	0.0-3.0	
	Others	0.0	0.0	0.0-0.0	
Anti-CD20 (last treatment)	Within less 12 months	33.0	0.0	0.0-3.0	0.257
	At least 12 months	2028.9	0.0	0.0-21.3	
Serum IgG level (mg/dL)	<550	2369.8	0.0	0.0-2.0	0.006
	≥550	465.8	3.0	0.0-60.3	
Serum IgM level (mg/dL)	<40	1306.9	1.0	0.0-41.0	0.054
	≥40	69.6	0.0	0.0-9.8	
Serum IgA level (mg/dL)	<80	1101.2	0.0	0.0-6.0	<0.001
	≥80	1021.3	6.0	0.0-283.5	

Abbreviations: FISH - Fluorescence in situ hybridization; IGHV -immunoglobulin heavy chain; P – probability value; y – years

Supplementary Table 2. Baseline characteristics and outcome of CLL patients with COVID-19 after the third vaccine dose

At the time of third vaccination						COVID-19 severity and outcome		
Age, years	Sex	Treatment status	Active treatment protocol	Treated with anti-CD20 (time since last treatment, months)	Antibody titer post third vaccination (AU/mL)	Hospitalization	Severe COVID-19	Outcome
77.7	Female	On therapy	Ibrutinib	-	0.0	-	-	Recovered
73.8	Female	Off-therapy	-	+ (17.5)	0.0	+	+	Recovered
66.0	Male	Treatment- naïve	NR	-	138	-	-	Recovered
73.7	Male	On-therapy	Ibrutinib	+ (58.0)	0.0	+	+	Death

(+) Yes, (-) No, m – months, NR – not relevant.

Adverse events

Supplementary table 3. Adverse events after the third vaccine dose

Adverse event	Type	N	%
Local	Local pain	93	55.4
	Local redness/edema	20	11.9
Systemic	Fatigue	26	15.5
	Weakness	21	12.5
	Myalgia	16	9.5
	Fever	13	7.7
	Headaches	12	7.1
	Enlarged axil lymph nodes	6	3.6
	Chills	5	3.0
	Others	3	1.8
	Arthralgia	2	1.2
	Nausea	2	1.2
	Allergy	1	0.6

% – type of an adverse event out of 168 patients.