Supplementary table 1. Characteristics at vaccination

Median age (range), years	68 (24-89)
Gender, female (%)	27 (40)
Median body mass index (range), kg/sm^2	24.7 (17.5-41.5)
Median lymphocyte count at baseline (range), /μL	1100 (100-3800)
Median neutrophils count at baseline (range), /μL	2900 (100-33200)
Median number of therapy lines (range)	1 (1-4)
Median months from diagnosis to 1st vaccine dose (range)	24 (1-156)
Median months from the beginning of the last therapy to 1st vaccine dose (range)	8 (1-34)
Median months from the last anti-CD20 administration before vaccination to the 1st vaccine dose (range)	1,8 (0.0-88.7) (*)
Diagnosis Diffuse large B-cell lymphoma, # (%) Follicular lymphoma, # (%) Mantle cell lymphoma, # (%) Marginal zone lymphoma, # (%)	 24 (35) (**) 29 (43) 5 (7) 10 (15)

Therapeutic status at 1st vaccine dose
Ongoing therapy, # (%)
Follow-up, # (%)
Only considering the 26 follow-up patients
    • Categorization by time interval (last anti-CD20 administration-1st vaccine dose) with cutoff at 3 months
-within 3 months, # (%); median time interval, months (range)
-beyond 3 months, # (%); median time interval, months (range)
    • Categorization by time interval (last anti-CD20 administartion-1st vaccine dose) with cutoff at 6 months
-within 6 months, # (%); median time interval, months (range)
-beyond 6 months, # (%); median time interval, months (range)
	
	42 (62)
	26 (38)
	
	10 (38); 2.0 (0.6-3.0)
	16 (62); 9.8 (3.6-35.3)
	
	16 (62); 2.9 (0.6-5.9)
	10 (38); 14.1 (8.1-35.3)

Last therapy administered (***) *Patients on active systemic treatment, #* -Induction combo: R-CHOP/R-COMP/R-Chl/R-Benda/R-DHAOX/G-CHOP/R-GEMOX/R-PROVECIP -Phosphatidylinositol 3-kinase inhibitors: Zandelisib/Idelalisib -Alkylating agent: Temozolamide -Maintenance: G/R *Patients on follow-up, #* -Post-R maintenance/post-autologous stem cell transplant/post-R-BAC/post-G-CHOP/post-R-Magrath/post-R-Benda/post-R-Chl/post-R-CHOP/post-R-COMP/post-R-CVP/post-R-DHAOX/post-R-miniCOMP	 42 5/1/3/7/3/2/1/2 2/1 1 4/10 26 5/3/1/1/1/2/2/6/1/2/1/1

(*) Zero in the range means that the last anti-CD20 administration before vaccination was approximately

simultaneous with the 1st vaccine dose

(**) In one case the diagnosis was Burkitt Lymphoma

(***) Therapy acronyms. R and R-: rituximab alone and in combo with chemotherapy; G and G-:

obinutuzumab alone and in combo with chemotherapy; BAC: bendamustine, cytosine arabinoside; BEAM

(conditioning regimen for autologous transplant): carmustine, etoposide, cytosine arabinoside, melphalan;

Benda: bendamustine; Chl: chlorambucil; CHOP: cyclophosphamide, doxorubicin, vincristine, prednisone;

COMP: cyclophosphamide, liposomal doxorubicin citrate complex, vincristine, prednisone; CVP:

cyclophosphamide, vincristine, prednisone; DHAOX: cytosine arabinoside, oxaliplatin, dexamethasone;

GEMOX: gemcitabine, oxaliplatin; Magrath: CODOX-M (cyclophosphamide, vincristine, doxorubicin,

methotrexate) / IVAC (ifosfamide, etoposide, cytosine arabinoside); PROVECIP: procarbazine, vinblastine,
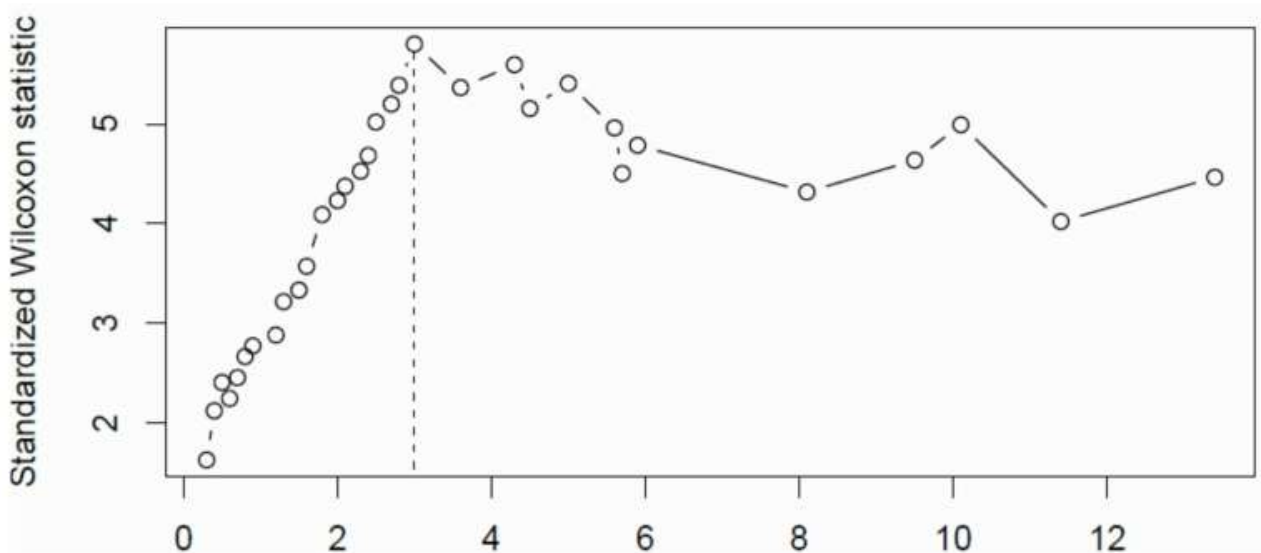
cyclophosphamide, prednisone.

Supplementary table 2. Predictors of response to BNT162b2 at 5 weeks

Variables	Univariate analysis		Multivariate analysis	
	Responders	p	Odds ratio (95%CI)	p
Age <68 years (n=33) ≥68 years (n=35)	10 (30.3%) 4 (11.4%)	0.074	4.02 (0.59-27.42)	0.155
Gender F (n=27) M (n=41)	5 (18.5%) 9 (22%)	1		
Body mass index <24.7 sm^2 (n=34) ≥24.7 sm^2 (n=34)	7 (20.6%) 7 (20.6%)	1		
Lines of therapy 1 (n=47) >1 (n=21)	11 (23.4%) 3 (14.3%)	0.524		
Lymphocyte count at baseline <1100/µL (n=35) ≥1100/µL (n=33)	6 (17.1%) 8 (24.2%)	0.555		
Neutrophils count at baseline <2900/µL (n=33) ≥2900/µL (n=35)	7 (21.2%) 7 (20%)	1		
Time from diagnosis to vaccination <24 months (n=34) ≥24 months (n=34)	6 (17.6%) 8 (23.5%)	0.765		
Time from the start of the last therapy to vaccination <8 months (n=34) ≥8 months (n=34)	2 (5.9%) 12 (35.3%)	0.006		
Time from the last rituximab or obinutuzumab administration to vaccination <1.8 months (n=34) ≥1.8 months (n=34)	1 (2.9%) 13 (38.2%)	0.001		
Diagnosis Diffuse large B-cell lymphoma (n=24) Follicular lymphoma (n=29) Mantle cell lymphoma (n=5) Marginal zone lymphoma (n=10)	5 (20.8%) 6 (20.7%) 1 (20%) 2 (20%)	1 (*)		
Therapeutic status at vaccination (categorization by ongoing treatment or follow-up) Ongoing therapy (n=42) Follow-up (n=26)	2 (4.8%) 12 (46.2%)	<0.001		
Therapeutic status at vaccination (categorization by time interval between the last anti-CD20 administration and the 1st vaccine dose with cutoff at 3 months) Ongoing therapy plus follow-up with last dose of anti-CD20 administered within 3 months (n=52) Follow-up with last dose of anti-CD20 administered beyond 3 months (n=16)	2 (3.8%) 12 (75.0%)	<0.001	80.71 (11.75-554.35)	<0.001
Therapeutic status at vaccination (categorization by time interval between the last anti-CD20 administration and the 1st vaccine dose with cutoff at 6 months) Ongoing therapy plus follow-up with last dose of anti-CD20 administered within 6 months (n=58) Follow-up with last dose of anti-CD20 administered beyond 6 months (n=10)	6 (10.3%) 8 (80%)	<0.001		
Therapeutic status at vaccination in follow-up patients only (categorization by time interval between the last anti-CD20 administration and the 1st vaccine dose with cutoff at 3 months) Last dose of anti-CD20 administered within 3 months (n=10) Last dose of anti-CD20 administered beyond 3 months (n=16)	0 (0%) 12 (75.0%)	<0.001		
Therapeutic status at vaccination in follow-up patients only (categorization by time interval between the last anti-CD20 administration and the 1st vaccine dose with cutoff at 6 months) Last dose of anti-CD20 administered within 6 months (n=16) Last dose of anti-CD20 administered beyond 6 months (n=10)	4 (25%) 8 (80%)	0.014		

(*) Pearson Chi Square

The odds ratio of significant variables for response to the vaccine was assessed. Multivariate analysis using a logistic regression model was planned in case of multiple variables significant for response at univariate analysis.

Supplementary figure 1. Standardized Wilcoxon statistic by time interval between the last dose of anti-CD20 monoclonal antibody and 1st vaccine dose (months). Supplementary figure 1 shows that 3 months are the best cutoff to separate responders versus non-responders based on the standardized Wilcoxon statistic.

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