



UNIKLINIK  
KÖLN

# Follikuläre Lymphome

Sommersymposium 2021

Prof. Dr. Kai Hübel

Köln, 26. Juni 2021

# Offenlegung möglicher Interessenskonflikte

## **Beratungs- bzw. Gutachtertätigkeit**

Roche, Celgene/BMS, Servier, Sanofi, EUSA

## **Honorare**

Roche, Celgene/BMS, Servier, Hexal, Sanofi, EUSA

## **Finanzierung wissenschaftlicher Untersuchungen**

Roche, Celgene, Servier, Hexal, Janssen

## **Andere finanzielle Beziehungen**

Reisekosten: Roche, Celgene, Servier, Hexal



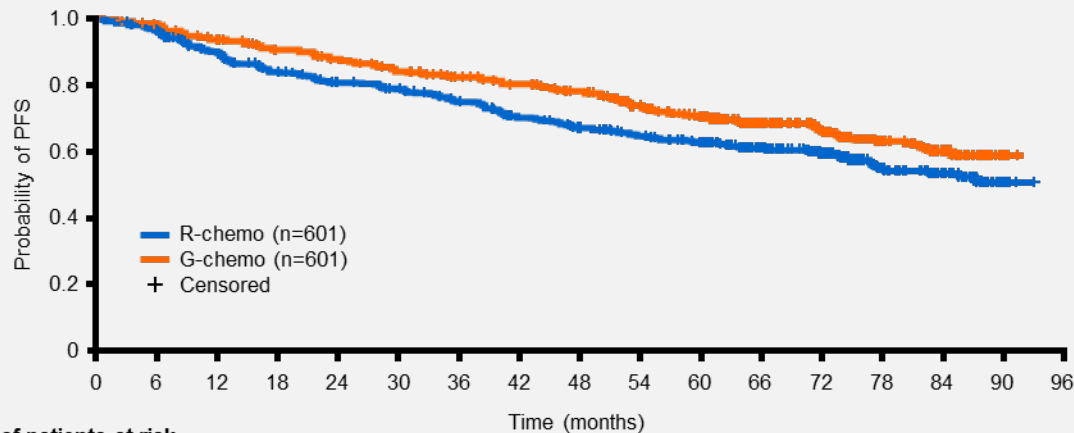
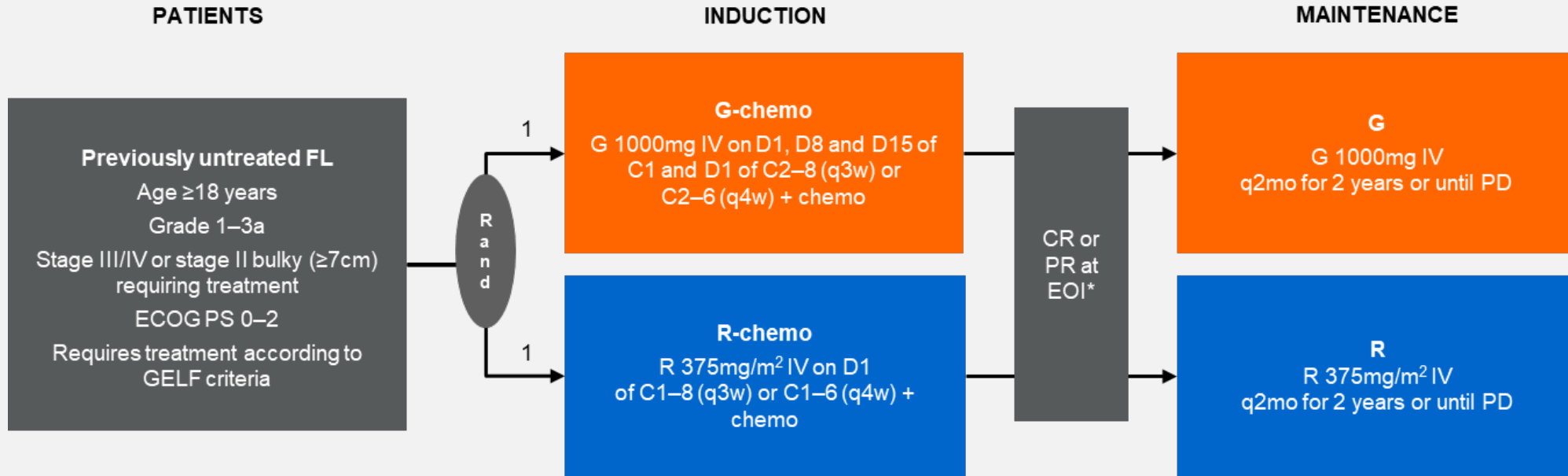
# Erstlinientherapie des Follikulären Lymphoms

Work-up	Histology, CT or PET/CT; bone marrow biopsy, blood count and blood chemistry (including LDH and $\beta$ 2MG), virology (HIV, HBV, HCV), history (B symptoms)			
Stage (Ann Arbor)	Localised stages (stages I/II)	Advanced stages (stages III/IV)		
		Modified GELF criteria negative	Modified GELF criteria positive <i>Old/frail patients</i>	Modified GELF criteria/ BNLI criteria positive <i>Fit patients</i>
Therapy	Involved-site radiotherapy at 24–30 Gy	Watch & wait	Rituximab	6 x CD20 antibody plus 6 x chemotherapy (Benda/CHOP/CVP) followed by 12 x CD20 antibody every 2 months

GELF, Groupe d'Etude des Lymphomes Folliculaires



# GALLIUM-Studie



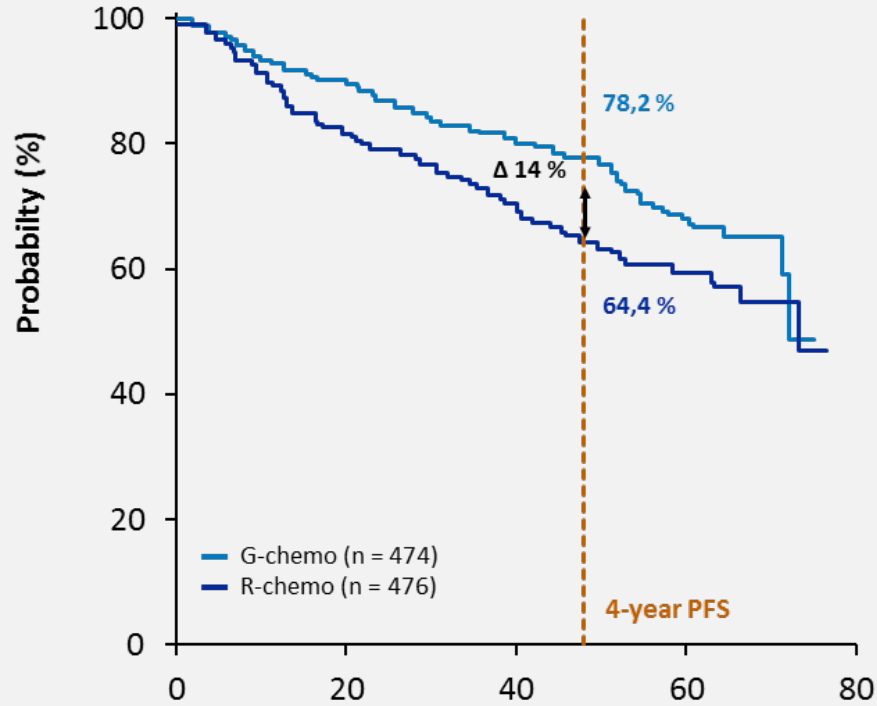
No. of patients at risk	0	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96
R-chemo (n=601)	601	563	512	471	447	429	404	373	349	328	304	247	176	88	52	3	
G-chemo (n=601)	601	574	539	512	491	467	446	430	406	368	334	269	182	98	53	4	

	G-chemo (n=601)	R-chemo (n=601)
Median PFS, months	NR	NR
5-year PFS, % (95% CI)	70.5 (66.4–74.1)	63.2 (59.0–67.1)
HR (95% CI), p-value	0.76 (0.62–0.92), p=0.0043	

Median follow-up: 76.5 months



# GALLIUM-Studie: PFS bei FLIPI $\geq 2$



FLIPI $\geq 2$	R-chemo, n=476*	G-chemo, n=474*
4-yr PFS, % (95% CI)	64.4 (59.9, 68.3)	78.2 (74.3, 82.1)
HR (95% CI)	0.65 (0.52, 0.82)	

Median follow-up: 57.3 months

No. of patients at risk:

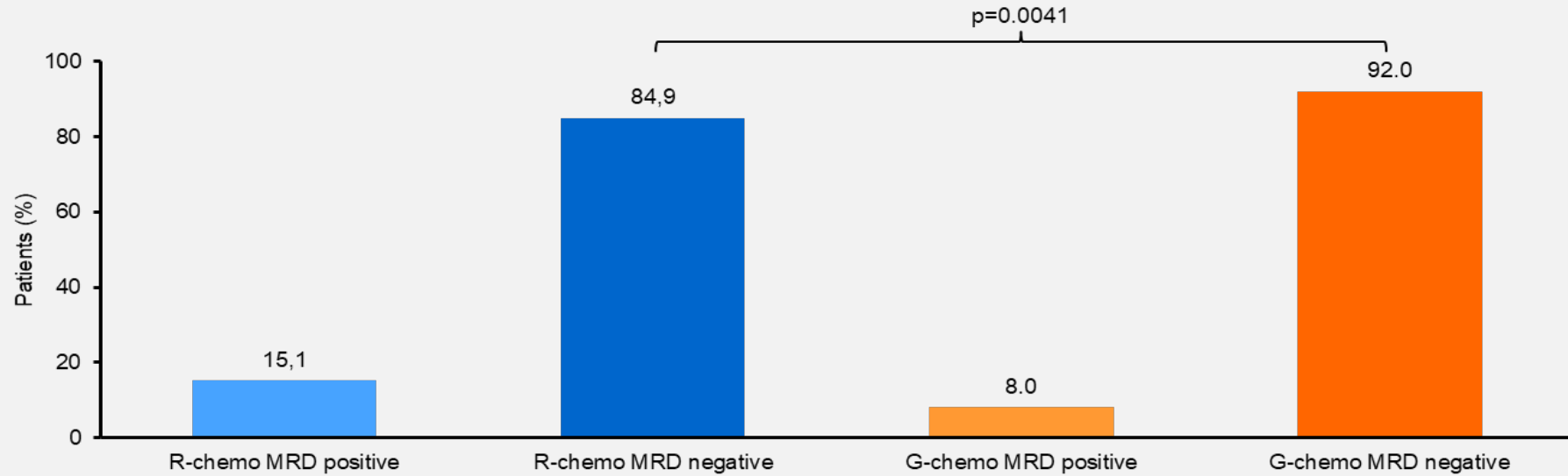
G-chemo	474	399	337	96	0
R-chemo	476	362	292	97	0

\*Efficacy-evaluable population;  
FLIPI, Follicular Lymphoma International Prognostic Index.



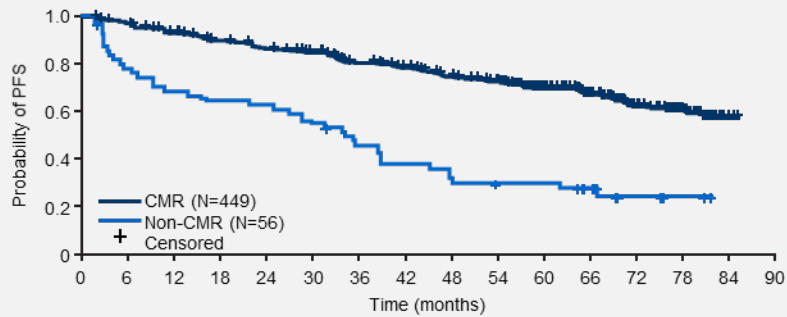
# GALLIUM-Studie: MRD- und PET-Analysen

MRD response status in blood and bone marrow at EOI by treatment arm



Pott et al. ASH 2016

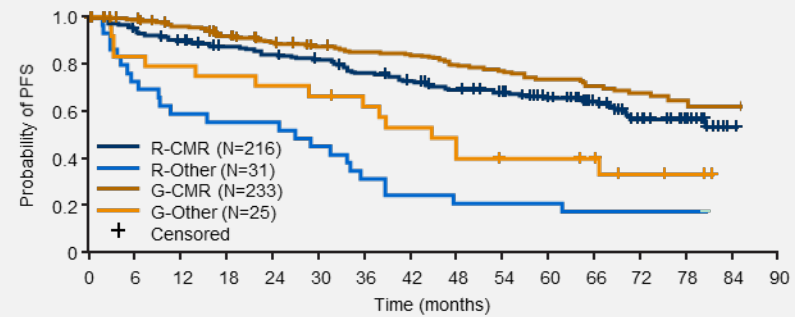
INV-assessed PFS by EOI PET CMR status



—	449	426	404	383	363	353	332	315	290	271	220	164	91	56	3
—	56	41	36	34	33	29	23	19	17	14	14	10	5	3	

CMR, complete metabolic response

INV-assessed PFS by EOI PET CMR status and treatment arm

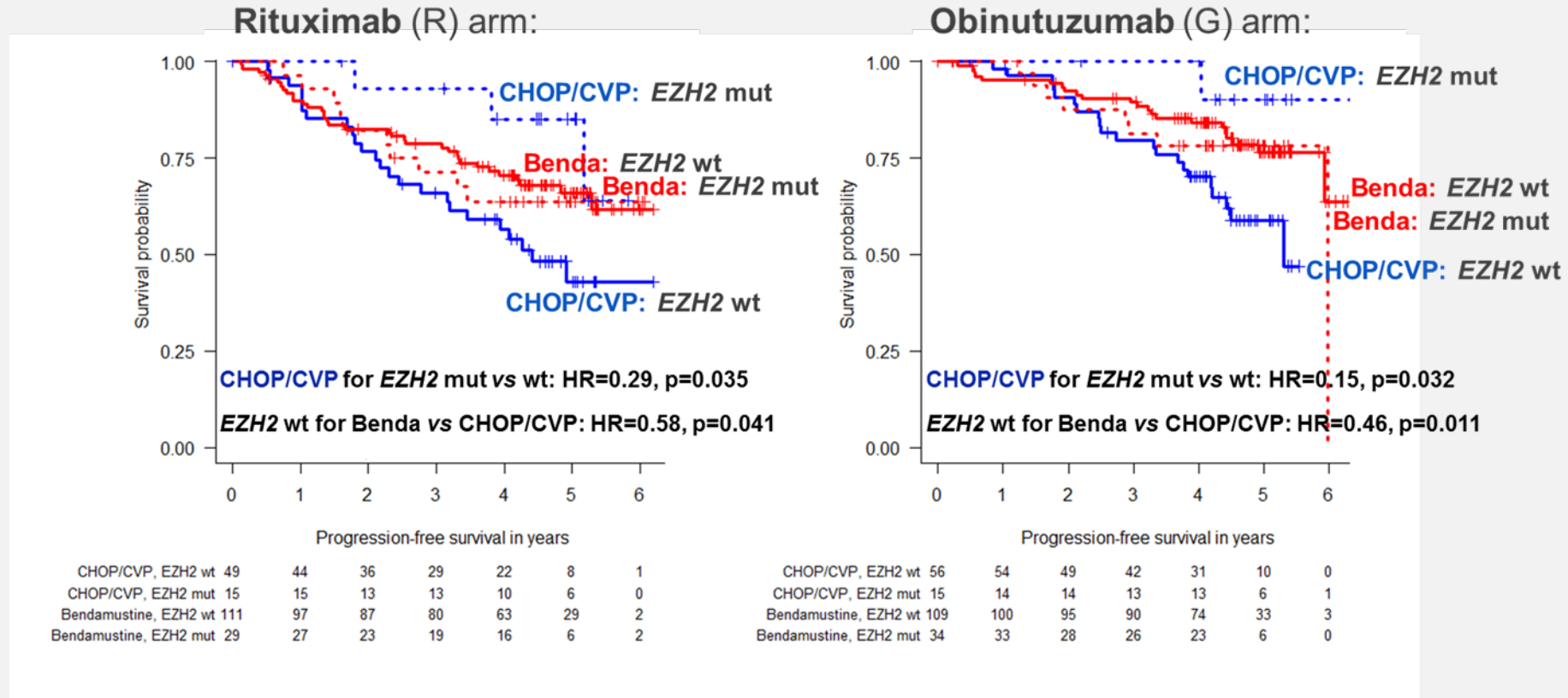


No. of patients at risk															
—	216	202	190	180	173	167	154	144	133	126	105	79	41	28	1
—	31	21	17	16	16	13	9	7	6	6	6	3	1	1	
—	233	224	214	203	195	186	178	171	157	145	114	85	50	28	2
—	25	20	19	18	17	16	14	12	11	8	8	7	4	2	

Trotman et al. EHA 2020

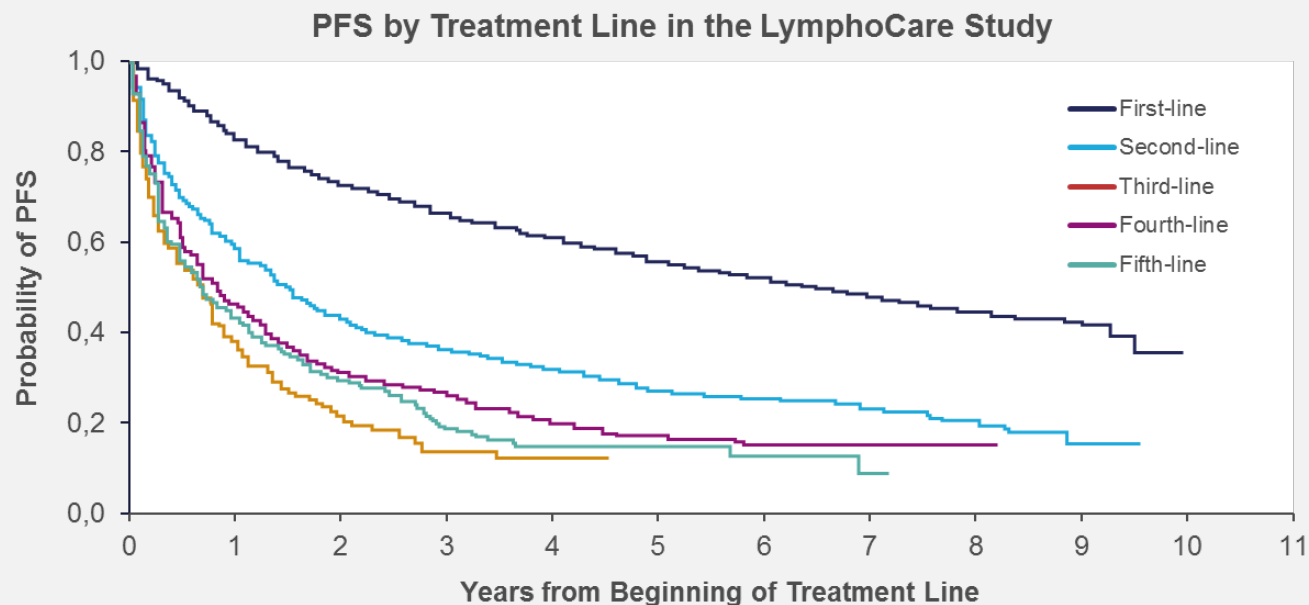


# GALLIUM-Studie: EZH2-Mutation und Chemotherapie



Patienten mit *EZH2* Wildtyp profitieren von Bendamustin,  
 Patienten mit *EZH2* Mutation profitieren von CHOP/CVP.

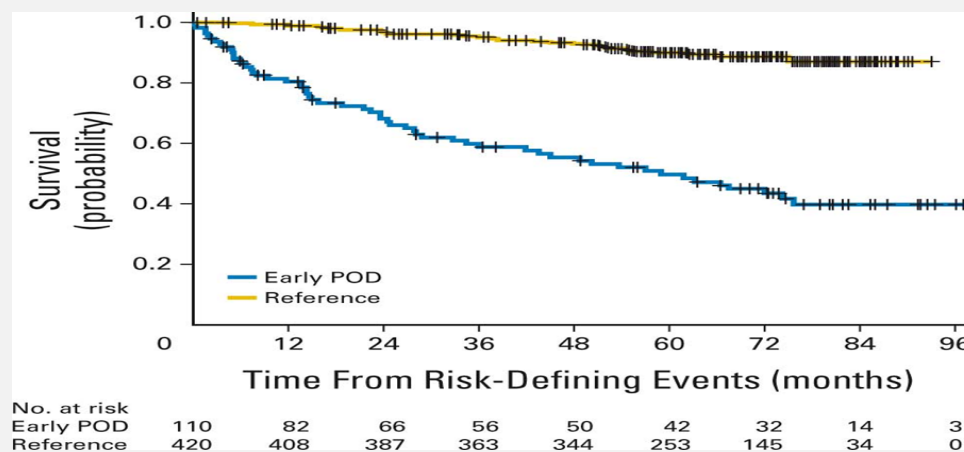
# Rezidivtherapie des Follikulären Lymphoms



Treatment Line	Median PFS, months
First line (n=2429)	79.4
Second line (n=889)	18.0
Third line (n=438)	10.0
Fourth line (n=229)	8.3
Fifth line (n=123)	8.2

The relatively long survival for patients with FL is driven primarily by the duration of outcomes in 1L.

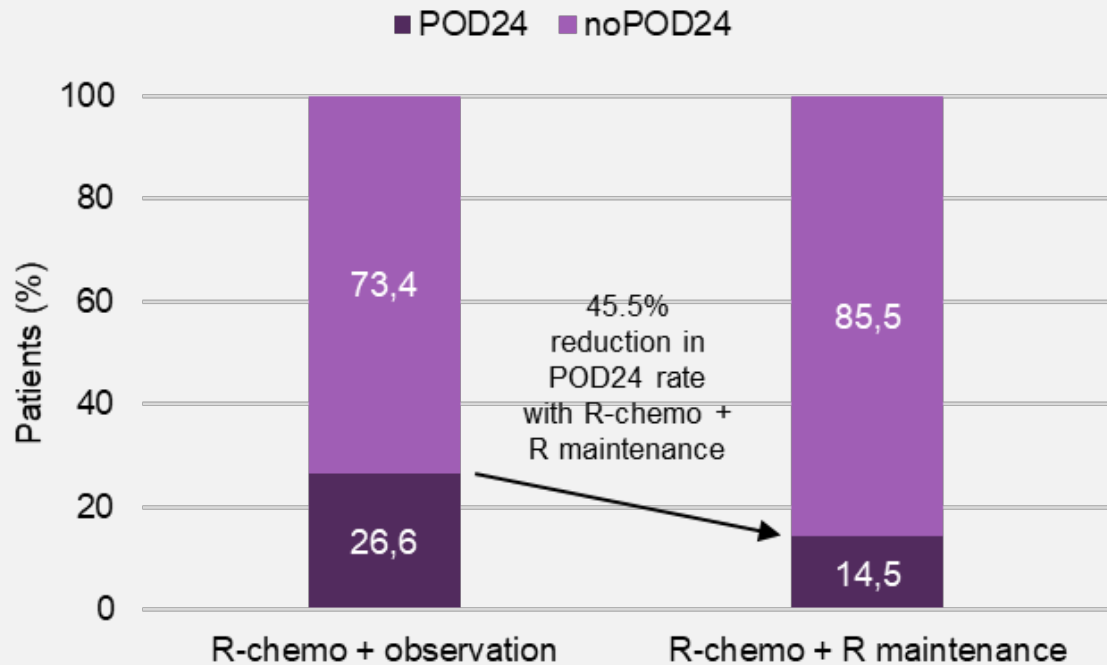
Based on data from a prospective US study of patients diagnosed with FL between March 2004 and March 2007 (n=2652)



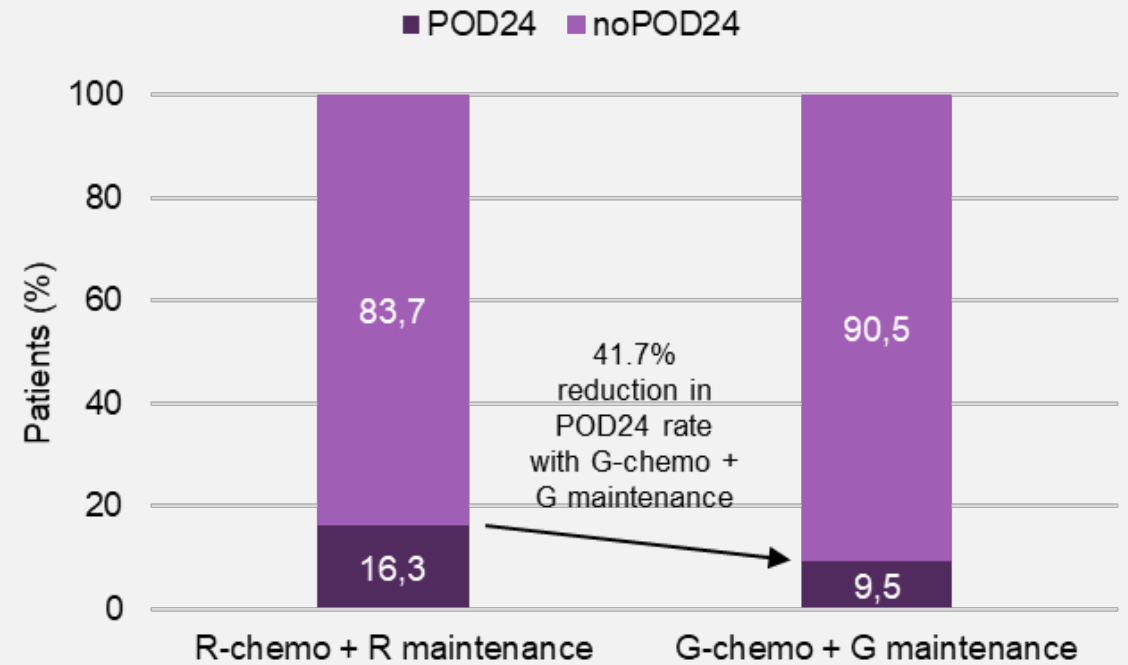


# Einfluss der gewählten Behandlung auf POD24

Impact of treatment on rate of POD24 in PRIMA<sup>1</sup>

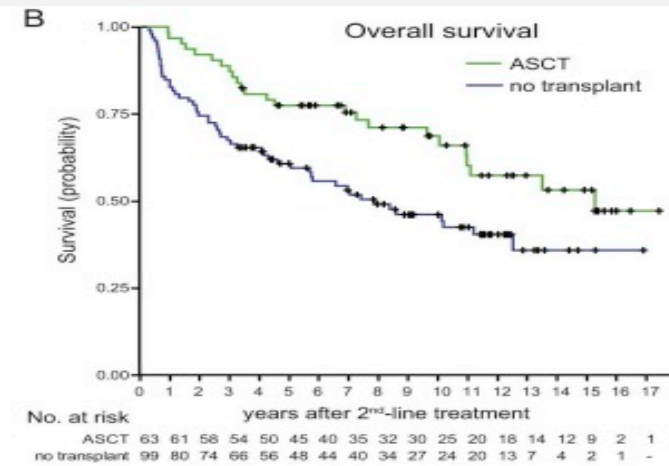
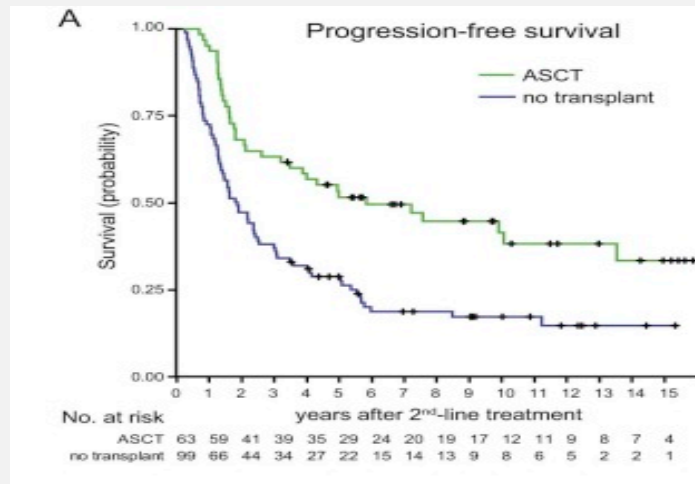


Impact of treatment on rate of POD24 in GALLIUM<sup>2</sup>

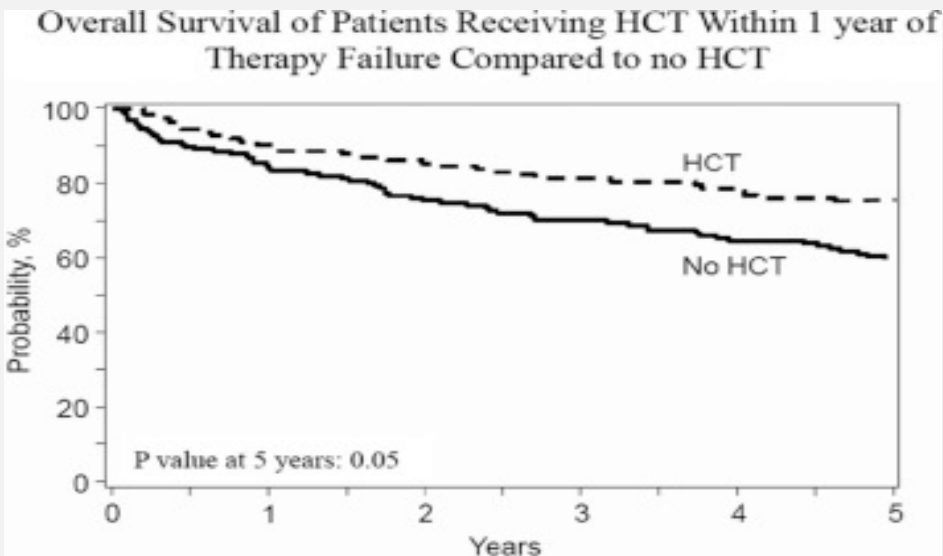


1. Bachy et al. Blood Adv 2021;5:1729–32  
2. Seymour et al. Haematologica 2019;104:1202–8

# Therapieoptionen beim Frührezidiv: Autologe Transplantation



*Jurinovic V, BBMT 2018*



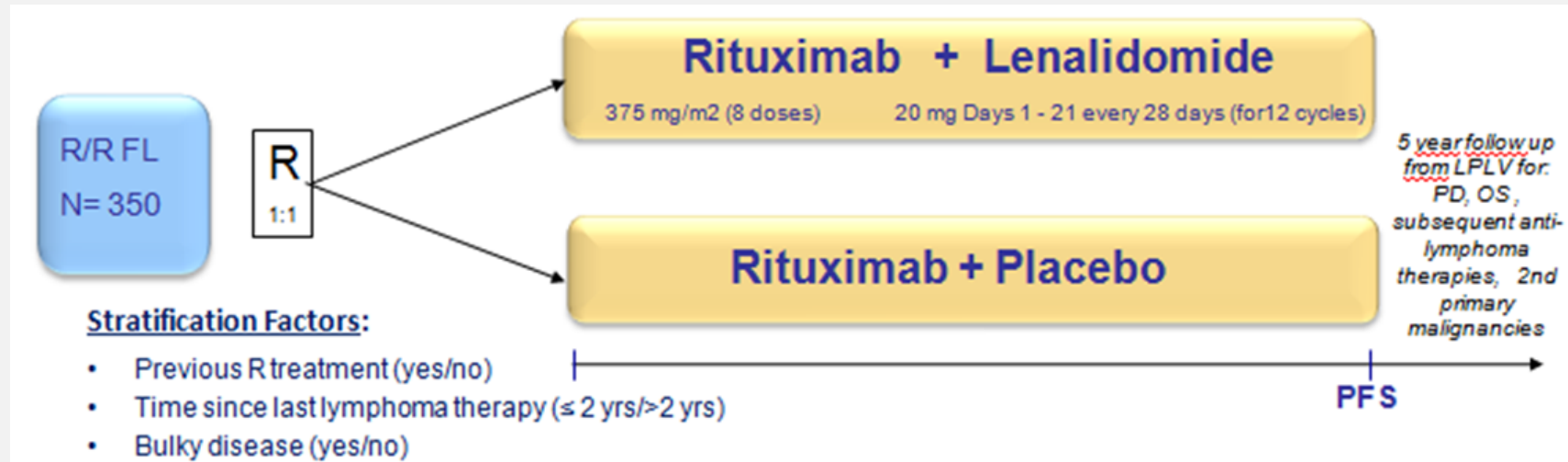
Die autologe Transplantation ist bei allen Patienten mit Rezidiv innerhalb von 24 Monaten nach der Erstlinie zu prüfen!

*Casulo C, BBMT 2018*



# AUGMENT: R<sup>2</sup> vs R beim rezidivierten/refraktären FL

Phase III, doppel-blind, randomisiert



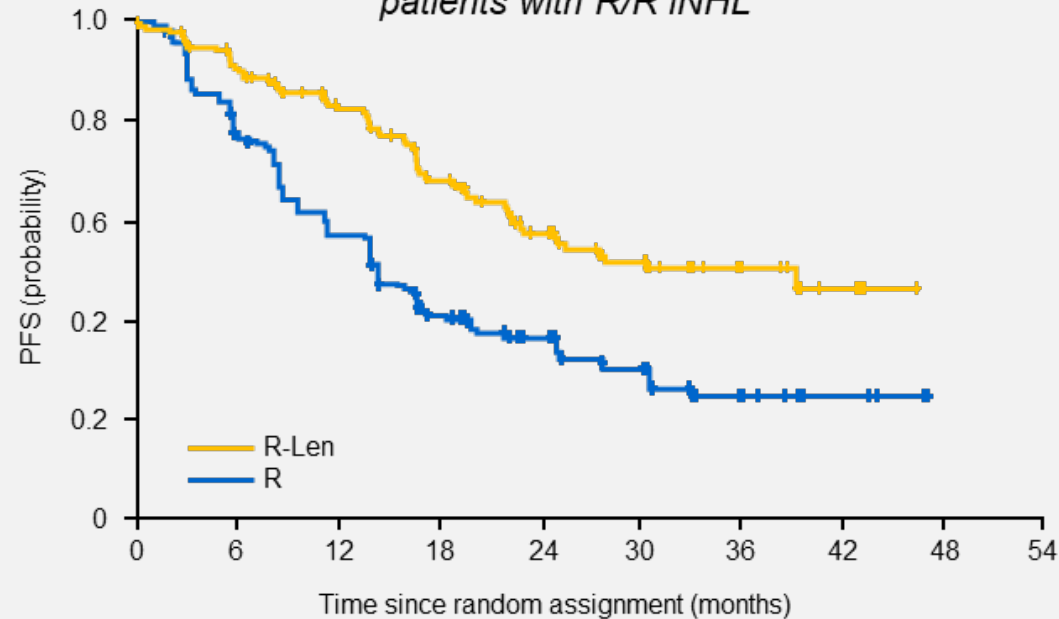
Primäres Zielkriterium: PFS

Medianes follow-up: 28,3 Mo

# AUGMENT: Effektivität

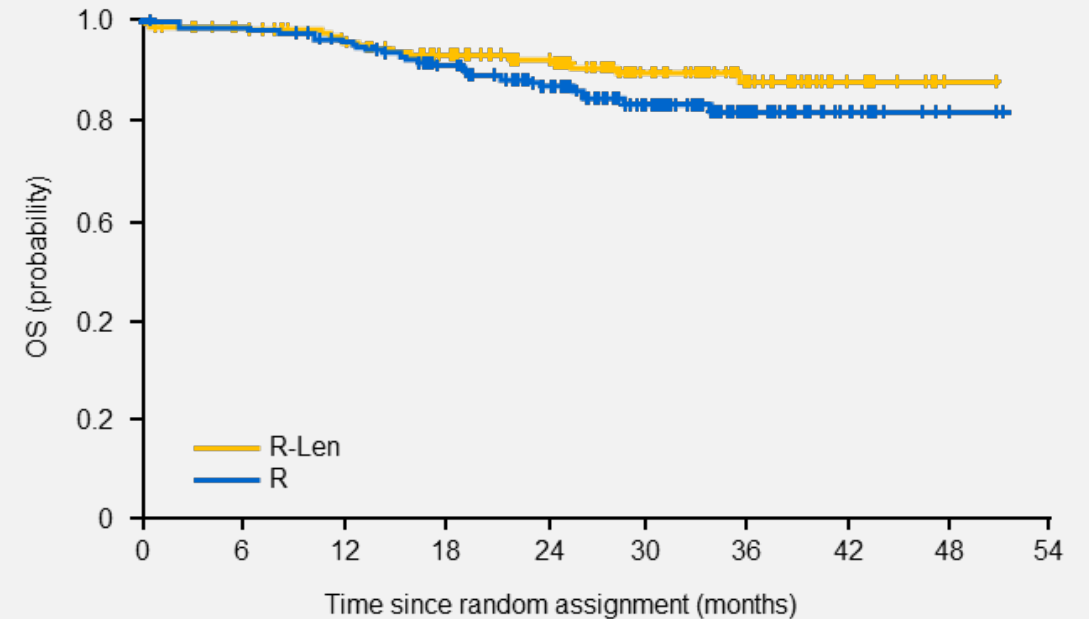
Randomised Phase III trial of R-Len vs R in 358 patients with R/R FL or MZL (NCT01938001)

KM estimates of IRC-assessed PFS (primary endpoint) among patients with R/R iNHL



	R-Len (n=178)	R (n=180)
Median PFS, months	39.4 (22.9–NR)	14.1 (11.4–16.7)
HR (95% CI), p-value	0.46 (0.34–0.62), p<0.0001	

KM estimates of OS among patients with R/R iNHL



	R-Len (n=178)	R (n=180)
Median OS, months	NR (NR–NR)	NR (NR–NR)
HR (95% CI)	0.61 (0.33–1.13)	

Leonard et al. J Clin Oncol 2019;37:1188–99



# MAGNIFY

Randomised Phase III trial of R-Len maintenance vs R maintenance after R-Len induction in 393 patients with R/R FL, MZL or MCL (NCT01996865)

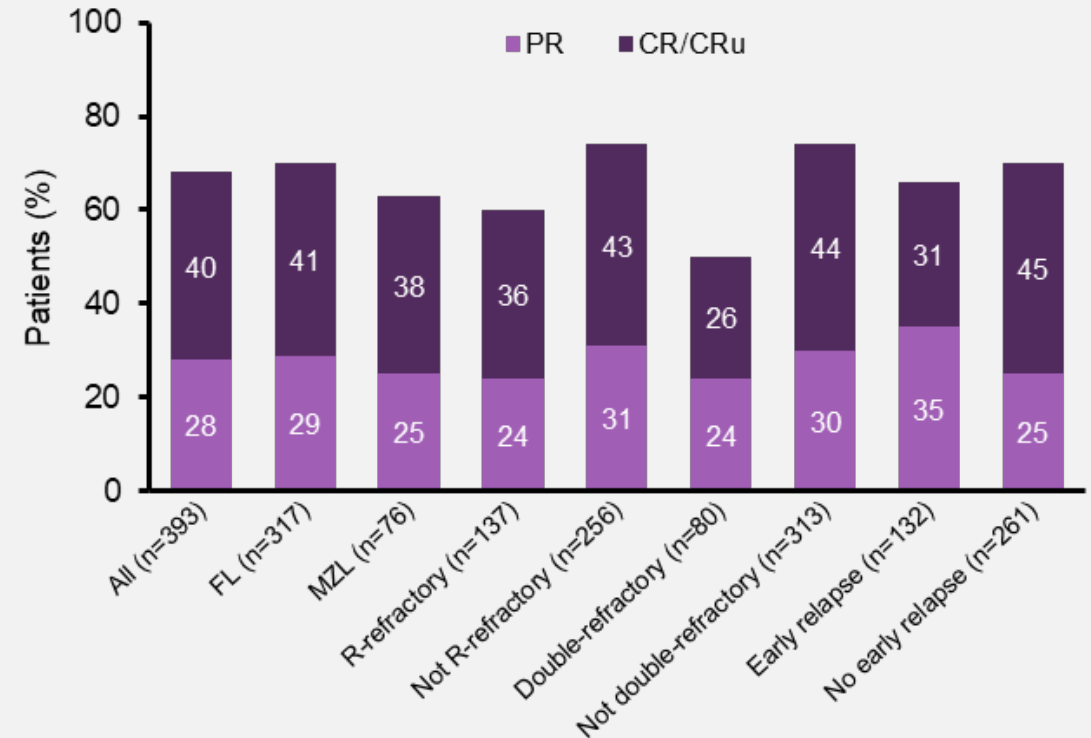
Common ( $\geq 5\%$ ) Gr 3–4 AEs during R-Len induction (n=391)

%	Gr 3–4
Any	68
Neutropenia	36
Leukopenia	7
Thrombocytopenia	6
Fatigue	5

- 372 patients (95%) had received prior R-containing regimens
- 137 patients (35%) were considered R-refractory
- 139 patients (35%) discontinued R-Len early (AEs: n=52, 13%; PD: n=45, 11%)

Median follow-up: 23.7 months (range: 0.6–57.8)

Response during R-Len induction (n=393)

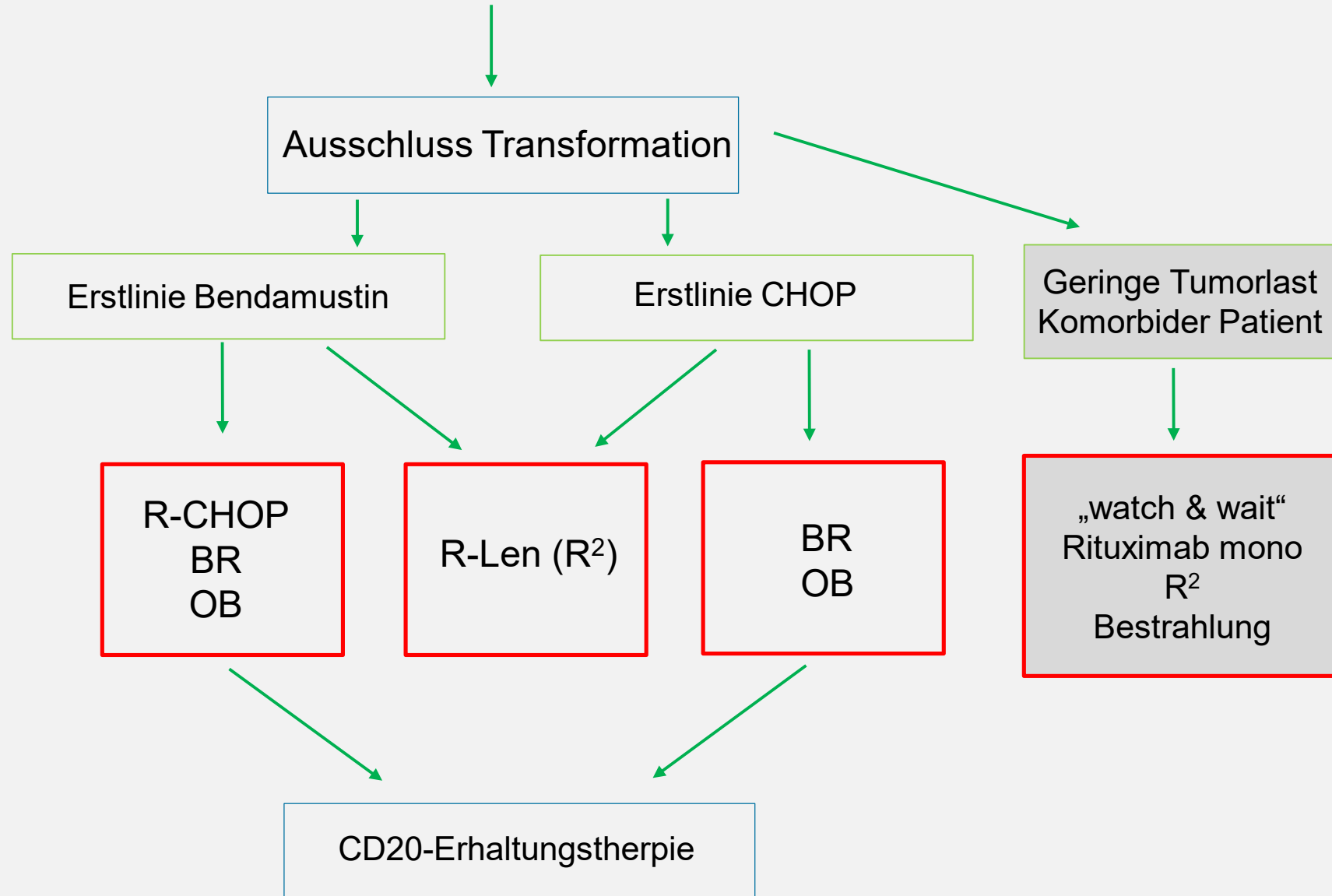


- Median DoR: 39.0 months in all patients, 35.8 months in R-refractory and NR in not R-refractory

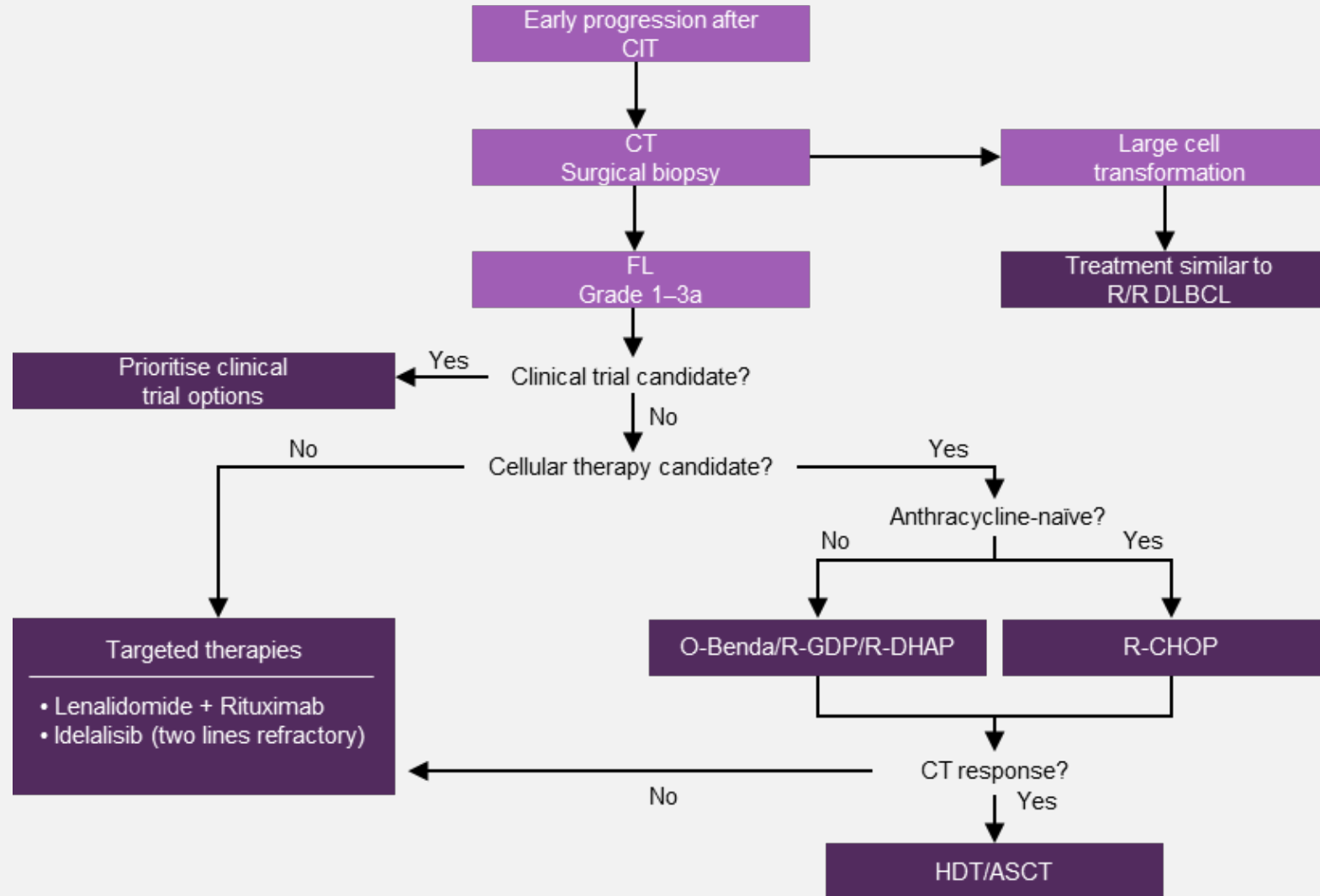
Andorsky et al. ASCO 2020



# Mögliches Therapiemanagement bei Spätrezidiven



# Mögliches Therapiemanagement bei POD24



# Ausblick

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# Tazemetostat

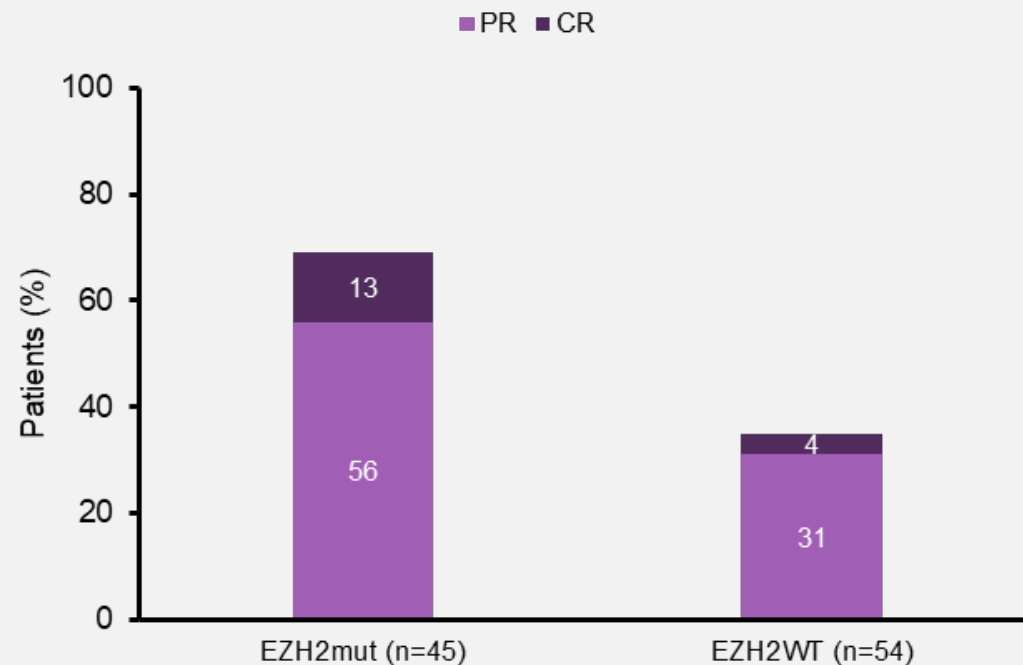
Single-arm Phase II trial of tazemetostat in 99 patients with R/R FL and  $\geq 2$  prior lines (NCT01897571)

AE summary in modified ITT population (n=99)

N (%)	Treatment-related
AE	80 (81)
Gr 3–5 AE*	
Thrombocytopenia	3 (3)
Neutropenia	3 (3)
Anaemia	2 (2)
SAE	4 (4)
Gr 5 (fatal) AE	0
AE leading to discontinuation of treatment	5 (5)

Median follow-up: 22.0 months in EZH2<sup>mut</sup> cohort and 35.9 months in EZH2<sup>WT</sup> cohort; \*listed Gr 3–5 AEs are those with incidence  $\geq 2\%$

IRC-assessed response in modified ITT population (n=99)



- Median DoR: 10.9 months in EZH2<sup>mut</sup> and 13.0 months in EZH2<sup>WT</sup>

Morschhauser et al. Lancet Oncol 2020;21:1433–42



# Mosunetuzumab

Open-label Phase I/II dose-escalation and dose-expansion study of mosunetuzumab including 62 patients with R/R FL (NCT02500407)

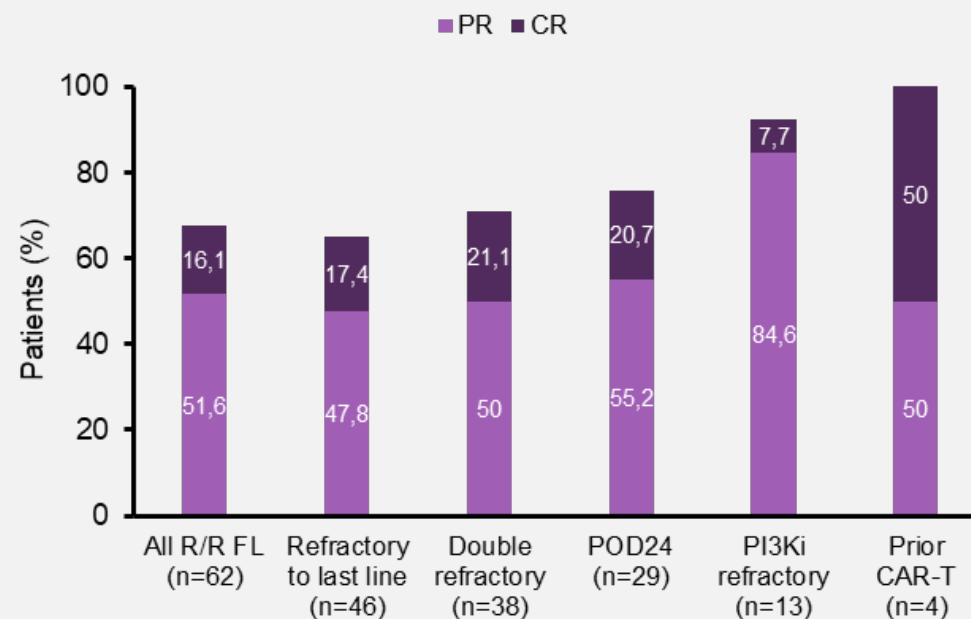
AE summary in R/R FL cohort (n=62)

	Any	Any related
AE	60 (96.8)	45 (72.6)
Gr 3–5 AE*	42 (67.7)	22 (35.5)
Neutropenia	14 (22.6)	10 (15.1)
Hypophosphataemia	13 (21.0)	13 (21.0)
Anaemia	4 (6.5)	1 (1.6)
SAE	22 (35.5)	9 (14.5)
Gr 5 (fatal) AE	1 (1.6)	1 (1.6) <sup>†</sup>
AE leading to discontinuation of treatment	5 (8.1)	4 (6.5) <sup>‡</sup>

- 11/62 patients (17.7%) with CRS; all events (n=13) in C1 and Gr 1 or Gr 2

\*Listed Gr 3–5 AEs are those with incidence  $\geq 5\%$ ; <sup>†</sup>pneumonia; <sup>‡</sup>pneumonia, neutropenia, arthritis and alanine aminotransferase increased

Response in R/R FL cohort (n=62)

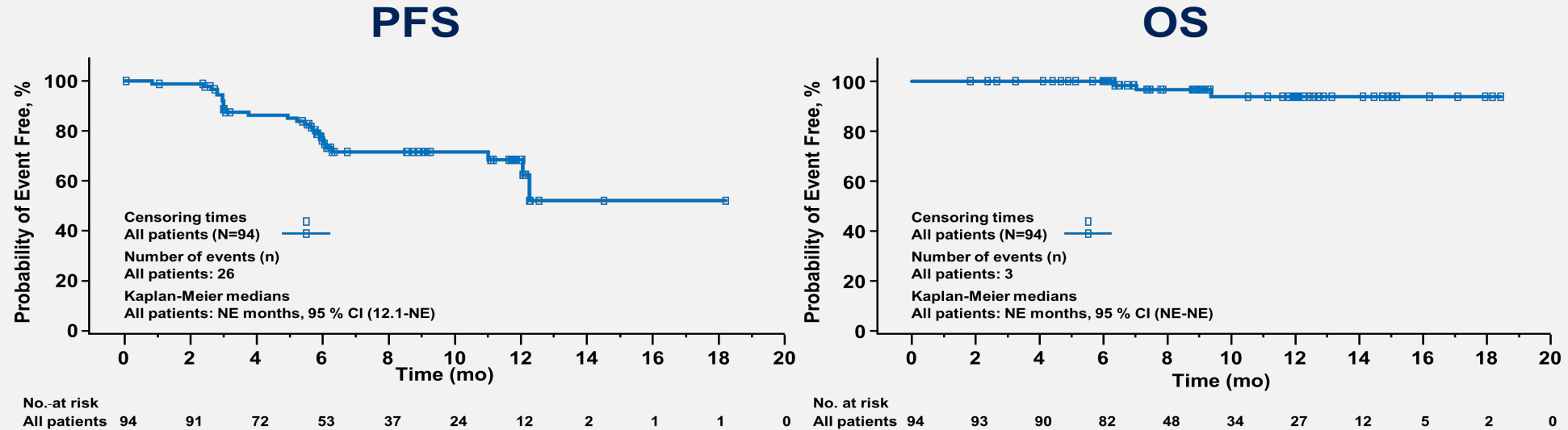


- Median DoR: 20.4 months in all pts and 21.0 months in all CR pts

Assouline et al. ASH 2020



# ELARA: Tisa-Cel beim r/r Follikulärem Lymphom

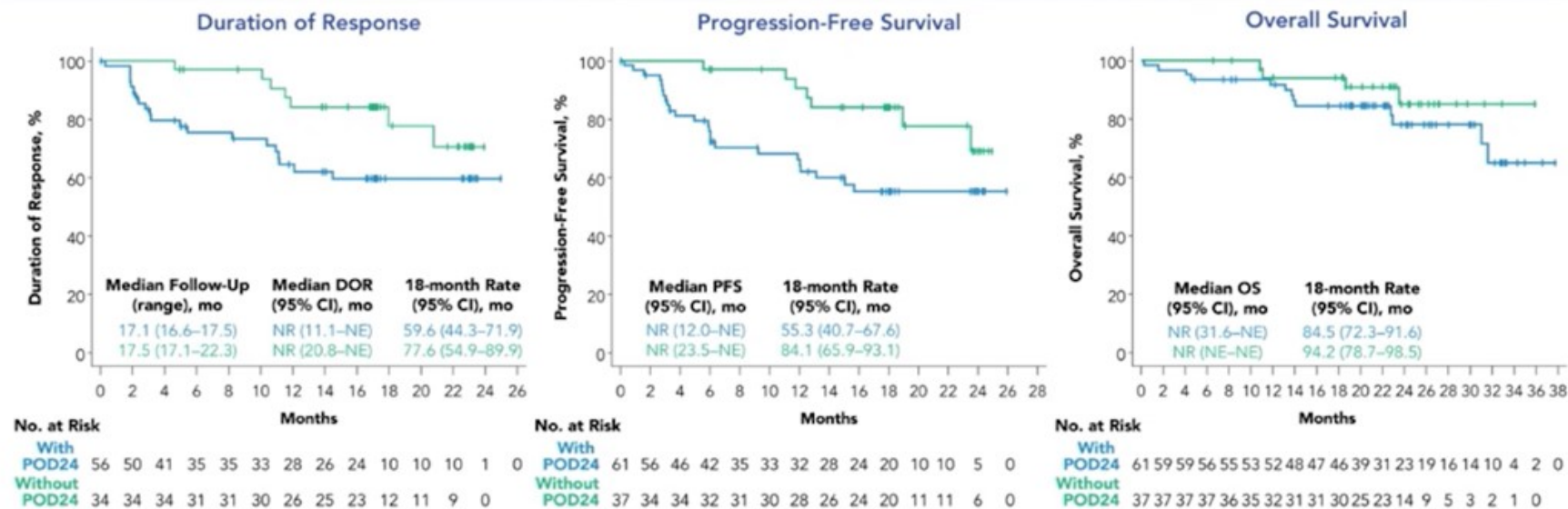


- Median PFS (95% CI, 12.1-NE) and OS (95% CI, NE-NE) were not reached
- 6-month PFS was 76% (95% CI, 65-84)

	Treated Patients N=97	
	All grades, %	Grade ≥3, %
<b>AESI (within 8 weeks of infusion)</b>		
Cytokine release syndrome <sup>a,1</sup>	48.5	0
Neurological adverse reactions	9.3	1.0
Infections	18.6	5.2
Tumor lysis syndrome	1.0	1.0
Prolonged depletion of B cells and/or agammaglobulinemia <sup>b</sup>	10.3	0
Hematologic disorders including cytopenias		
Neutropenia <sup>c,d</sup>	30.9	27.8
Anemia <sup>c</sup>	24.7	13.4
Thrombocytopenia <sup>c</sup>	16.5	9.3

# ZUMA-5: Axi-Cel beim r/r Follikulären Lymphom

## Indolente Non-Hodgkin-Lymphome | Ergebnisse



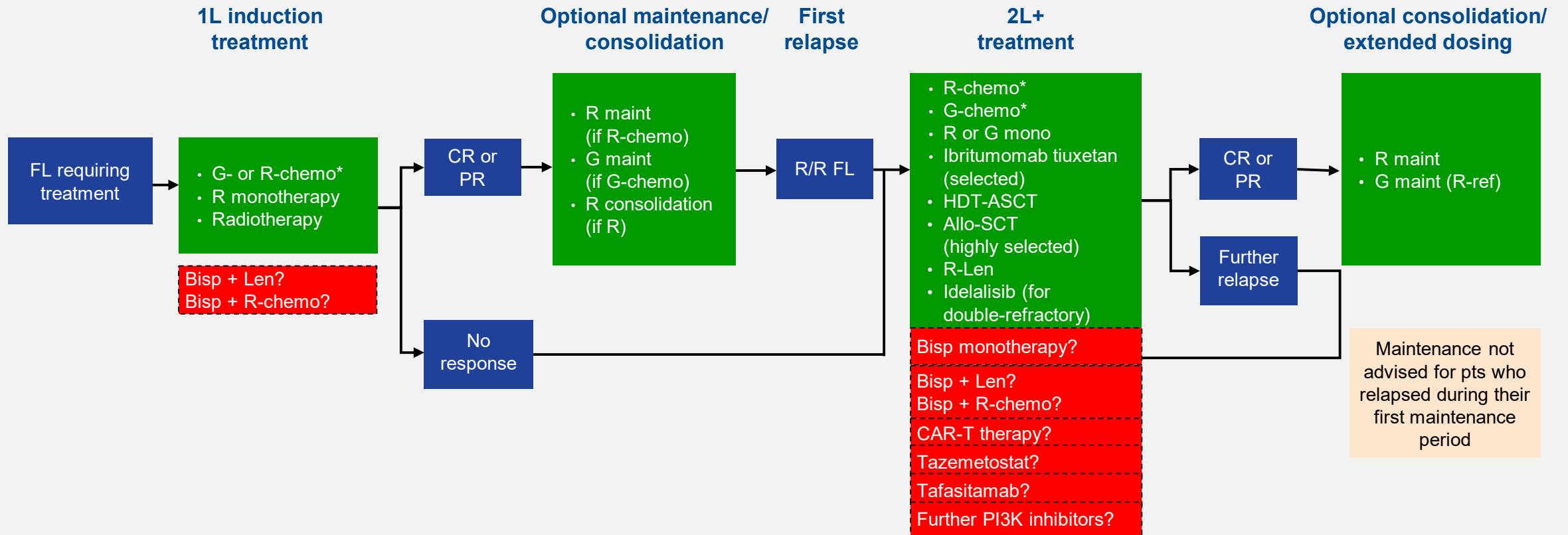
- With median follow-up of 17.1 months and 17.5 months at data cutoff, responses were ongoing in 52% of efficacy-evaluable patients with POD24 and 70% of those without POD24, respectively

EHA 2021: Jacobson, C.A. *et al.*, S213 OUTCOMES IN ZUMA-5 WITH AXICABTAGENE CILOLEUCEL IN PATIENTS WITH RELAPSED/REFRACTORY INDOLENT NON-HODGKIN LYMPHOMA WHO HAD THE HIGH-RISK FEATURE OF EARLY PROGRESSION AFTER FIRST CHEMOIMMUNOTHERAPY

www.medtoday.de | Seite 14



# Wie werden neue Behandlungen die Therapielandschaft verändern?



*Vielen Dank!*