

Tafasitamab plus lenalidomide versus Pola-BR, R2, and CAR-T: comparing outcomes from RE-MIND2, an observational, retrospective cohort study in relapsed/refractory diffuse large B-cell lymphoma

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†Was an employee at time of study conduct.

Disclosures

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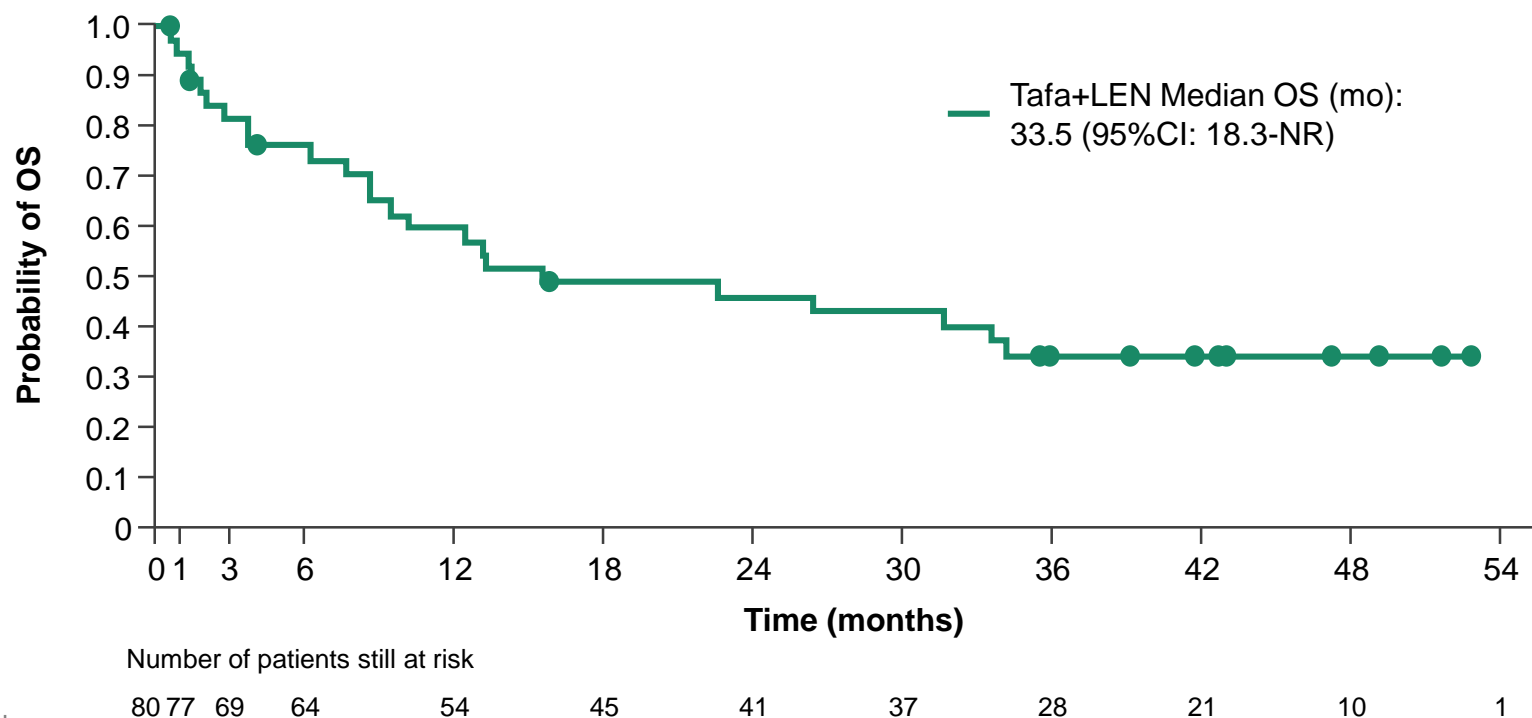
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About Tafasitamab

Tafasitamab is a humanized Fc-modified cytolytic CD19 targeting monoclonal antibody. In 2010, MorphoSys licensed exclusive worldwide rights to develop and commercialize tafasitamab from Xencor, Inc. Tafasitamab incorporates an XmAb[®] engineered Fc domain, which mediates B-cell lysis through apoptosis and immune effector mechanism including Antibody-Dependent Cell-Mediated Cytotoxicity (ADCC) and Antibody-Dependent Cellular Phagocytosis (ADCP). In January 2020, MorphoSys and Incyte entered into a collaboration and licensing agreement to further develop and commercialize tafasitamab globally. Following accelerated approval by the U.S. Food and Drug Administration in July 2020, tafasitamab is being co-commercialized by MorphoSys and Incyte in the United States. Incyte has exclusive commercialization rights outside the United States. XmAb[®] is a registered trademark of Xencor Inc.

Background

- Tafasitamab, an Fc-modified, humanized, anti-CD19 monoclonal antibody is approved in the US*, EU†, UK† and Canada† in combination with LEN for adult patients with R/R DLBCL not otherwise specified, including DLBCL arising from low-grade lymphoma, and who are not eligible for ASCT
- Efficacy was demonstrated in the single-arm, Phase II L-MIND study (NCT02399085) with outcomes sustained at ≥35 months follow-up^{1,2}
 - ORR was 57.5% (46/80 pts)
 - Responses were durable, with median DoR 43.9 months
 - Median PFS was 11.6 months
 - Median OS was 33.5 months



*Accelerated approval; †Conditional marketing authorization granted.
ASCT, autologous stem cell transplant; CI, confidence interval;
DLBCL, diffuse large B-cell lymphoma; DoR, duration of response;
LEN, lenalidomide; NR, not reached; ORR, objective response rate;
OS, overall survival; PFS, progression-free survival; pts, patients; R/R, relapsed/refractory.

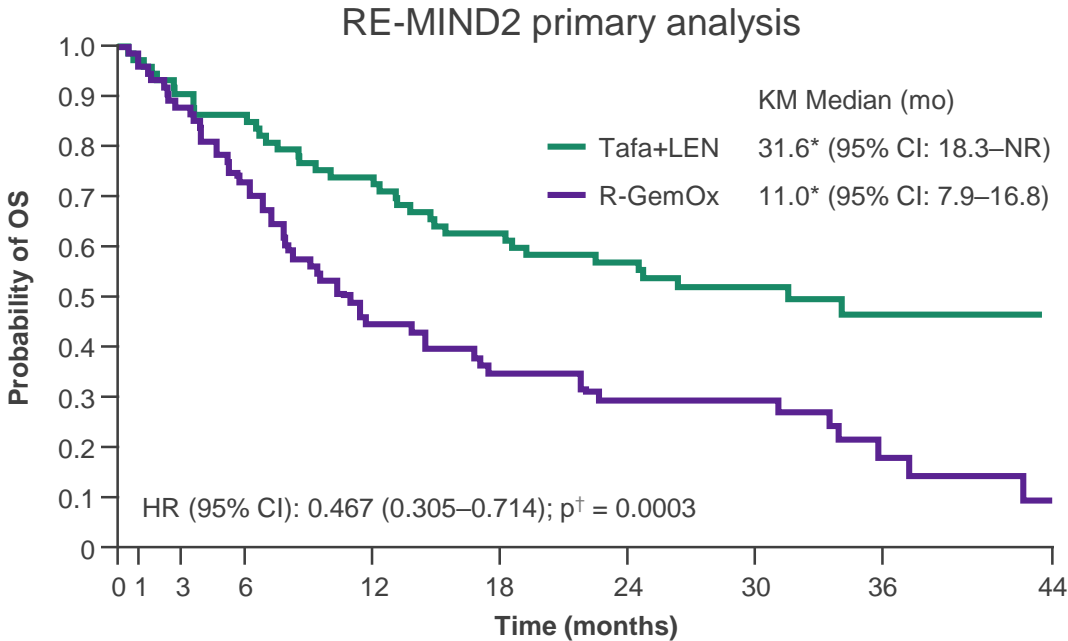
1. Salles G, et al. Lancet Oncol 2020;21:978–88.
2. Duell J, et al. Hematologica 2021;106:2417–2426.

Background

- Treatment options for R/R DLBCL have increased in recent years¹
- Assessing comparative effectiveness of novel treatments in randomized head-to-head studies is time-consuming and costly and may delay patient access to new treatment options²
- Real-world data can be used to generate external comparators to complement single-arm clinical trials^{3,4}
- The RE-MIND2 (NCT04697160) primary analysis, compared patient outcomes from L-MIND with matched patient populations treated with R-GemOx, BR and pooled systemic NCCN/ESMO recommended therapies for ASCT ineligible patients with R/R DLBCL⁵
- Here, we present results from an expanded analysis of RE-MIND2 comparing tafasitamab plus LEN versus Pola-BR, R2, and CAR-T therapies

*Patients received ≥2 prior systemic therapies for R/R DLBCL (including ≥1 anti-CD20 therapy); †Log rank test.

ASCT, autologous stem cell transplant; BR, bendamustine and rituximab; CAR-T, CD19 chimeric antigen receptor T-cell; CI, confidence interval; DLBCL, diffuse large B-cell lymphoma; ESMO, European Society of Medical Oncology; HR, hazard ratio; KM, Kaplan-Meier; LEN, lenalidomide; NCCN, National Cancer Care Network; OS, overall survival; Pola-BR, polatuzumab vedotin plus bendamustine and rituximab; R2, rituximab plus lenalidomide; R-GemOx, rituximab plus gemcitabine and oxaliplatin; R/R, relapsed/refractory; Tafa, tafasitamab.



Tafa+LEN (n=74)

At risk	74	72	66	63	53	44	37	24	14	0
Event(s)	0	2	7	10	19	27	31	34	36	36
Censored	0	0	1	1	2	3	6	16	24	38

R-GemOx (n=74)

At risk	74	73	65	53	29	21	15	12	5	0
Event(s)	0	1	9	20	40	46	49	49	53	55
Censored	0	0	0	1	5	7	10	13	16	19

1. Cheson BD, et al. Blood Can J 2021;11:68.

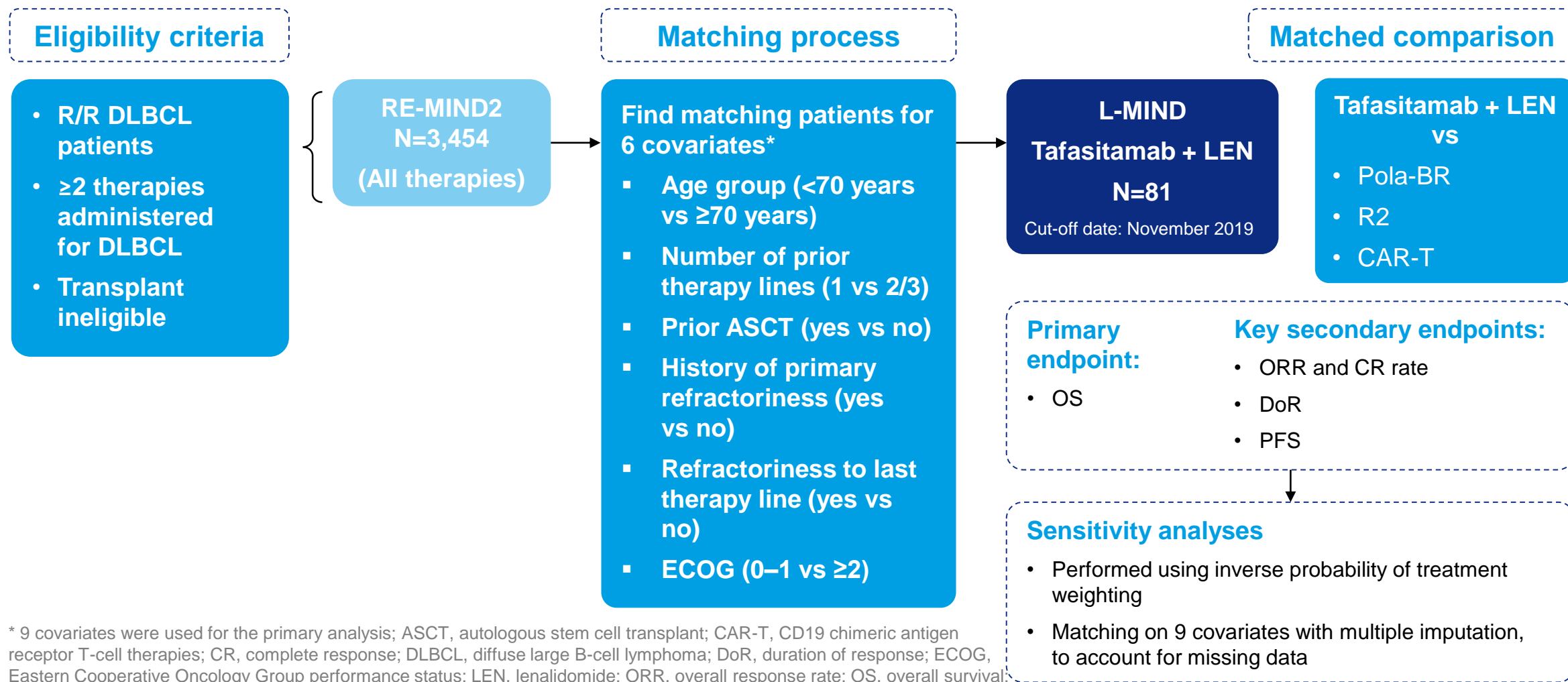
2. Mullard A. Nat Reviews 2018;17:81–5.

3. FDA. <https://www.fda.gov/media/124795/download>.

4. Przepiorka D, et al. Clin Can Res 2015;21:4035–4039

5. Nowakowski GS, et al. Poster ABCL-346. SOHO 2021. <https://epostersonline.com/soho2021/node/99>.

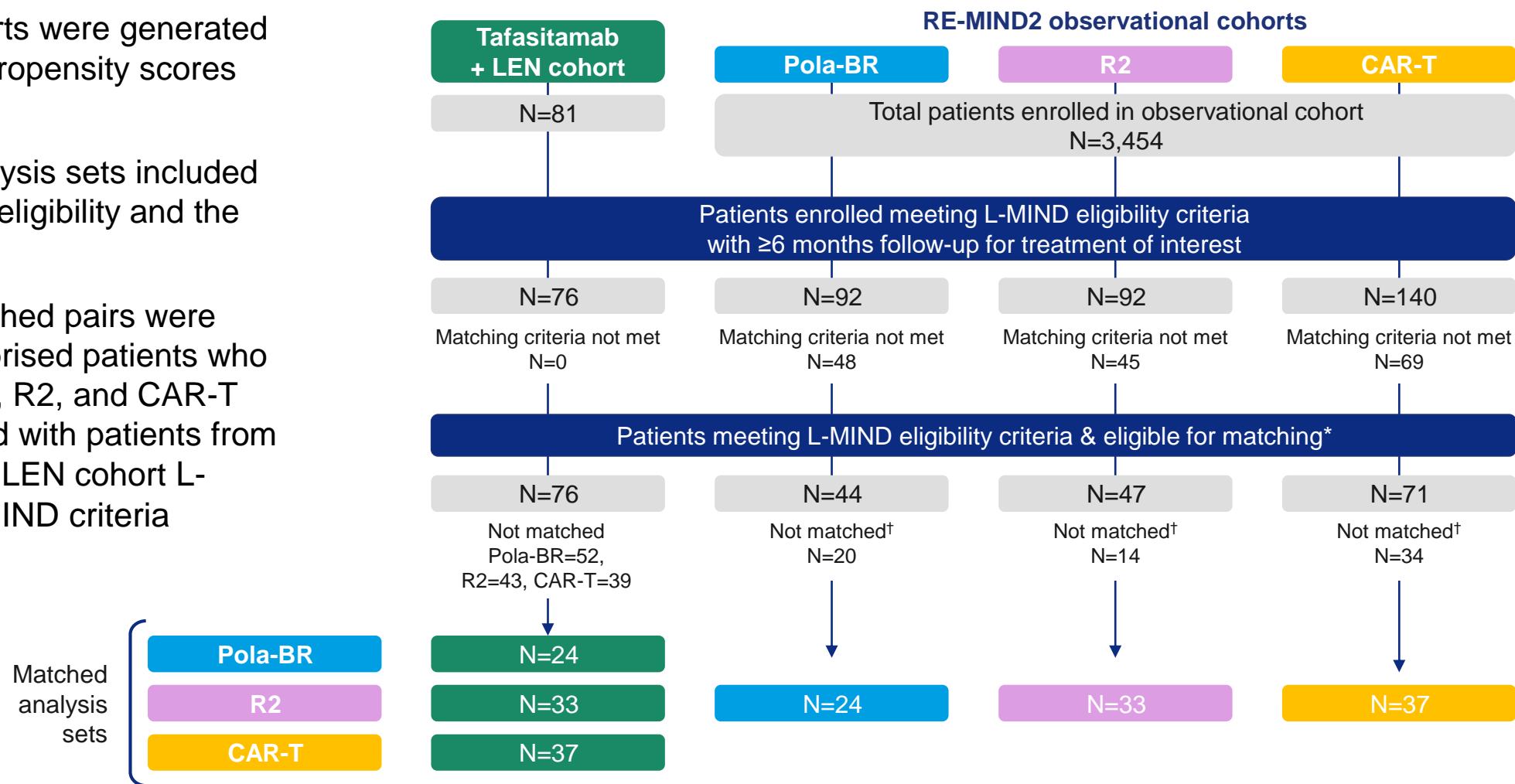
RE-MIND2 expanded analysis study design



* 9 covariates were used for the primary analysis; ASCT, autologous stem cell transplant; CAR-T, CD19 chimeric antigen receptor T-cell therapies; CR, complete response; DLBCL, diffuse large B-cell lymphoma; DoR, duration of response; ECOG, Eastern Cooperative Oncology Group performance status; LEN, lenalidomide; ORR, overall response rate; OS, overall survival; PFS, progression-free survival; Pola-BR, polatuzumab vedotin plus bendamustine and rituximab; R2, rituximab plus lenalidomide; R/R, relapsed/refractory.

Analysis populations

- Comparator cohorts were generated using estimated propensity scores and 1:1 matching
- The resulting analysis sets included patients who met eligibility and the matching criteria
- Patient-level matched pairs were created and comprised patients who received Pola-BR, R2, and CAR-T therapies matched with patients from the tafasitamab + LEN cohort L-MIND criteria L-MIND criteria

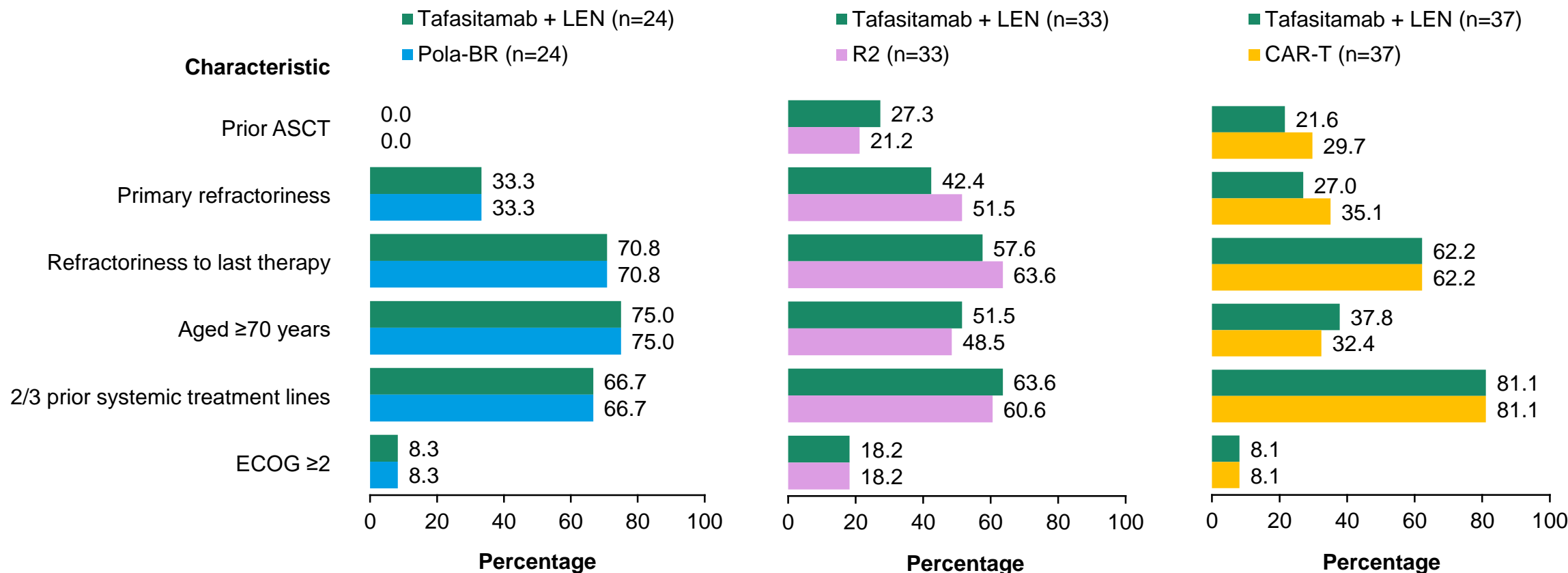


*With complete data for six matching covariates, Based on 1:1 nearest neighbor propensity score.

CAR-T, CD19 chimeric antigen receptor T-cell therapies; LEN, lenalidomide; Pola-BR, polatuzumab vedotin plus bendamustine and rituximab; R2, rituximab plus lenalidomide; R/R, relapsed/refractory.

Results: Baseline characteristics for tafasitamab + LEN versus Pola-BR, R2, and CAR-T

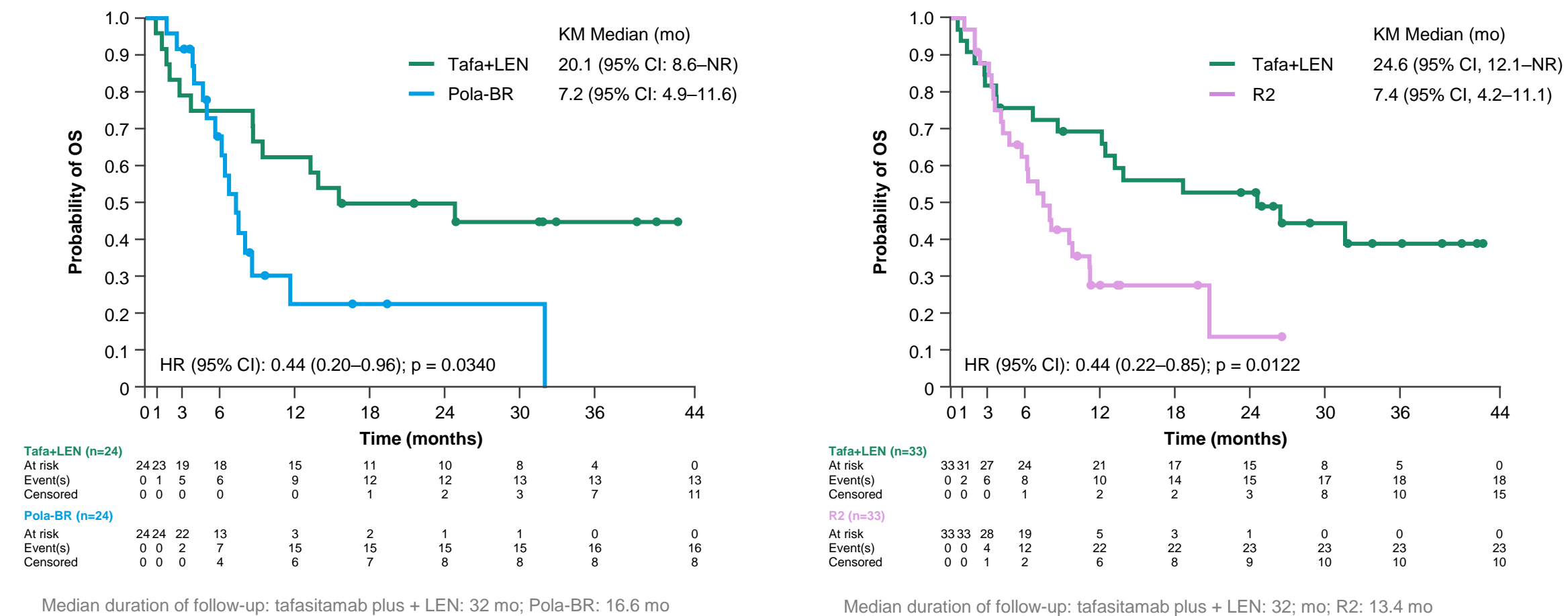
- A high degree of covariate balance was achieved between the tafasitamab plus LEN and comparator therapy cohorts



ASCT, autologous stem-cell transplant; CAR-T, CD19 chimeric antigen receptor T-cell therapies; ECOG, Eastern Cooperative Oncology Group; LEN, lenalidomide; Pola-BR, polatuzumab vedotin plus bendamustine plus rituximab; R2, rituximab plus lenalidomide.

Primary endpoint: OS

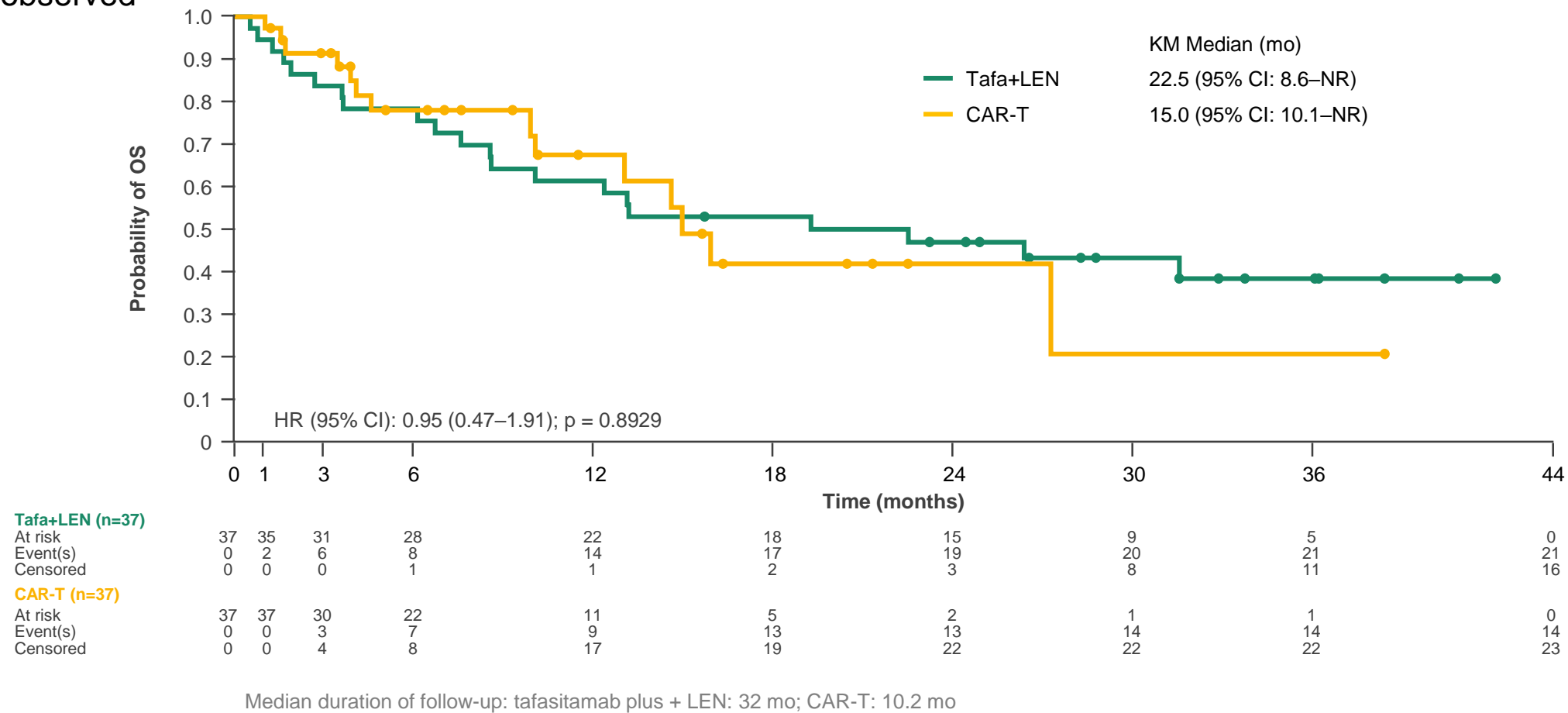
- Tafasitamab + LEN was associated with statistically significant improvements in OS versus Pola-BR and versus R2



CI, confidence interval; KM, Kaplan-Meier; LEN, lenalidomide; mo, month; NR, not reached; Pola-BR, polatuzumab vedotin plus bendamustine plus rituximab; OS, overall survival; R2, rituximab plus lenalidomide; Tafa, tafasitamab. P values were calculated using Log-rank test.

Primary endpoint: OS

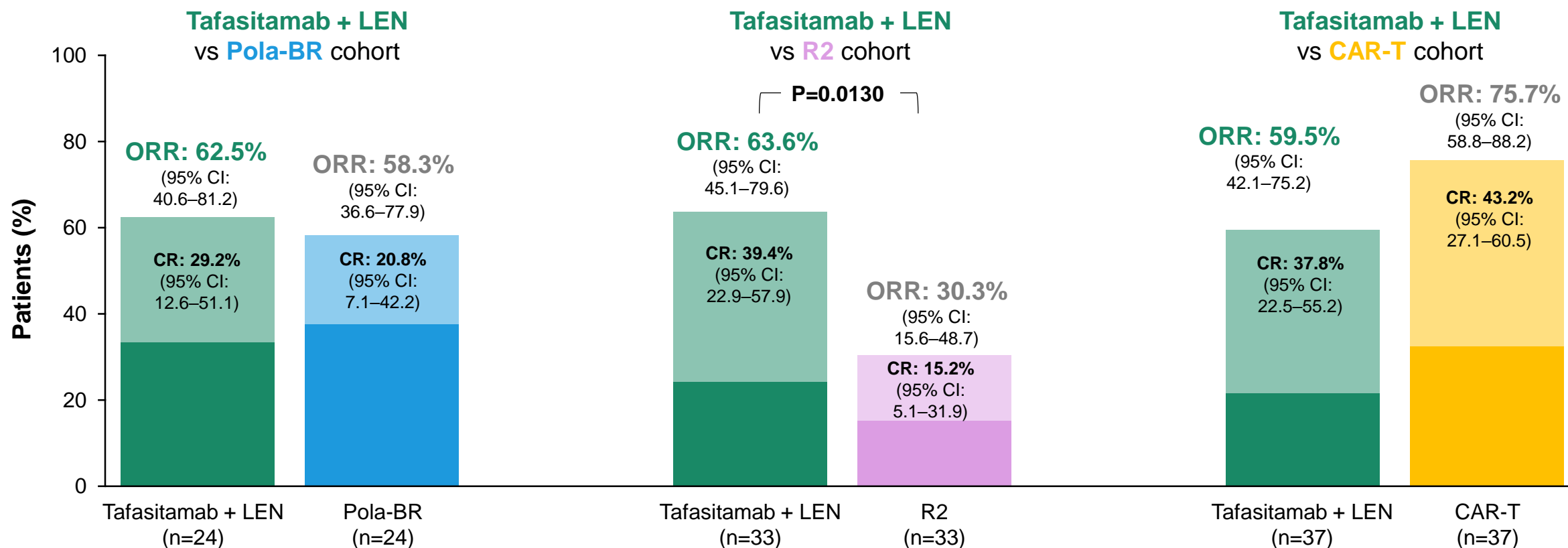
- A comparable OS benefit with tafasitamab + LEN versus CAR-T (22 versus 15 months), without statistical significance, was observed



CAR-T, CD19 chimeric antigen receptor T-cell; CI, confidence interval; KM, Kaplan-Meier; LEN, lenalidomide; mo, month; NR, not reached; OS, overall survival; Tafa, tafasitamab.

Secondary endpoint: ORR and CR rate

- ORR and CR rate were statistically significantly higher with tafasitamab + LEN versus R2
- Statistical differences versus Pola-BR and CAR-T were not detected with the sample sizes in the matched cohorts



CAR-T, CD19 chimeric antigen receptor T-cell; CI, confidence interval; CR, complete response; LEN, lenalidomide; ORR, overall response rate; Pola-BR, polatuzumab vedotin plus bendamustine plus rituximab; R2, rituximab plus lenalidomide.

Secondary endpoints: PFS and DoR

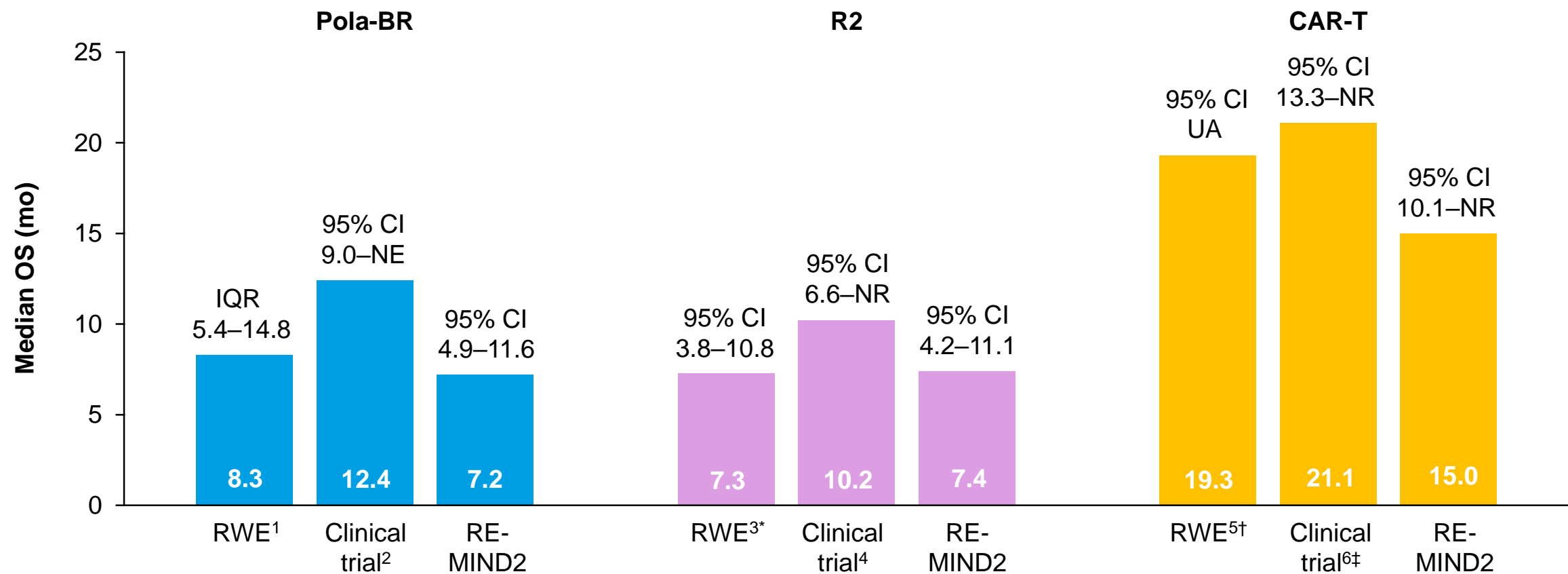
- Tafasitamab + LEN was associated with statistical and clinically meaningful improvements in PFS versus R2
 - Improvements in PFS were observed versus Pola-BR and versus CAR-T
- A low number of patients with tumor assessment data precluded comparative analysis of DoR

	Tafa + LEN (n=24)	Pola-BR (n=24)	Tafa + LEN (n=33)	R2 (n=33)	Tafa + LEN (n=37)	CAR-T (n=37)
Median PFS , mo (95% CI)	8.0 (1.9–19.9)	5.0 (2.5–5.6)	5.9 (3.6–36.7)	2.8 (2.0–5.8)	6.3 (3.6–22.5)	4.0 (3.1–12.8)
HR (95% CI) p* value	0.482 (0.217–1.073) 0.0689		0.511 (0.281–0.927) 0.0252		0.612 (0.302–1.240) 0.1696	
Median DoR , mo (95% CI)	17.7 (3.6–34.8)	2.3 (0.3–6.1)	34.8 (3.6–34.8)	12.4 (2.7–19.3)	26.1 (4.4–NR)	5.9 (2.0–10.0)

CAR-T, CD19 chimeric antigen receptor T-cell; CI, confidence interval; DoR, duration of response; KM, Kaplan-Meier; LEN, lenalidomide; mo, months; PFS, progression-free survival; Pola-BR, polatuzumab vedotin plus bendamustine plus rituximab; R2, rituximab plus lenalidomide; tafa, tafasitamab.

*Calculated using Log-rank test.

RE-MIND2 versus literature reported outcomes for comparator therapies



CAR-T, CD19 chimeric antigen receptor T-cell; CI, confidence interval; mo, month; IQR, interquartile range; NE, not-evaluable; NR, not reached; Pola-BR, polatuzumab vedotin plus bendamustine plus rituximab; R2, rituximab plus lenalidomide; RWE, real-world evidence; UA, unavailable to report.

¹Includes 21 patients with R/R DLBCL and 3 patients with transformed follicular lymphoma.

[†]Tisagenlecleucel or axicabtagene ciloleucel.

[‡]Lisocabtagene maraleucel.

1.Segman Y, et al. Leuk Lymphoma 2020;62:118–24.

2.Sehn L, et al. J Clin Oncol 2019;38:155–65.

3.Lee Y-P, et al. Cancer Manag Res 2021;13:4241–50.

4.Wang M, et al. Leukemia 2013;27(9):1902–9.

5.Sermer D, et al. Blood Adv 2020;4:4669–78.

6.Abramson JS, et al. Lancet 2020;396(10254):839–52.

Conclusions

- The primary endpoint was met for comparisons with tafasitamab + LEN compared with Pola-BR and R2
 - Statistically significant improvements in median OS were observed
 - Median OS was comparable with tafasitamab + LEN relative to CAR-T therapies
- Numerical differences, favoring tafasitamab + LEN, were observed for the secondary endpoints
- Sensitivity analyses which confirmed the main analysis were performed
- The RE-MIND2 study design used strict patient-level matching to compare real-world and clinical trial populations
 - This allows a contextualization of outcomes with different treatments in the absence of head-to-head trials
- Due to the recent approval of the comparator treatments, these data may inform treatment decisions in the context of emerging therapies for R/R DLBCL

CAR-T, CD19 chimeric antigen receptor T-cell; DLBCL, diffuse large B-cell lymphoma;

LEN, lenalidomide; OS, overall survival; Pola-BR, polatuzumab vedotin plus bendamustine plus rituximab; R2, rituximab plus lenalidomide; R/R relapsed/refractory; RWD, real-world data.

Back-up slides

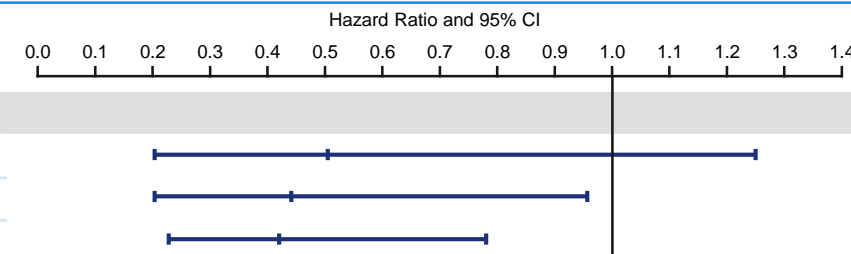
Sensitivity analyses

- Two sensitivity analyses using nine different covariates versus the main analysis were performed:
 - Inverse probability of treatment weighting method
 - 1:1 nearest neighbor with multiple imputation of missing values
 - Results aligned with the main analysis

Pola-BR

Tafa+LEN vs Pola-BR

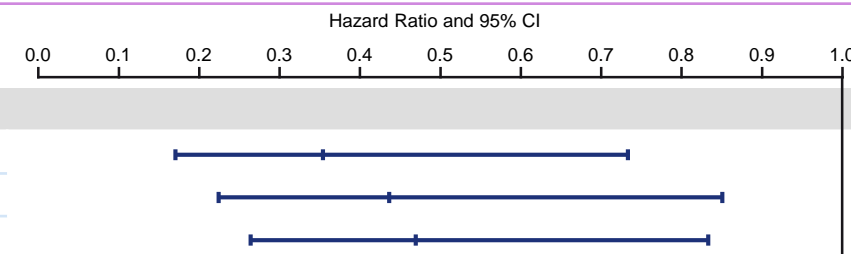
	N/N	E/E	HR	95% CI
FAS_elig_9cov_IPTW	76/36	36/26	0.504	0.20–1.25
MAS with 6 baseline variates	24/24	13/16	0.441	0.20–0.96
MAS with 9 baseline variates with MI	39/39	21/25	0.42	0.23–0.78



R2

Tafa+LEN vs BR2

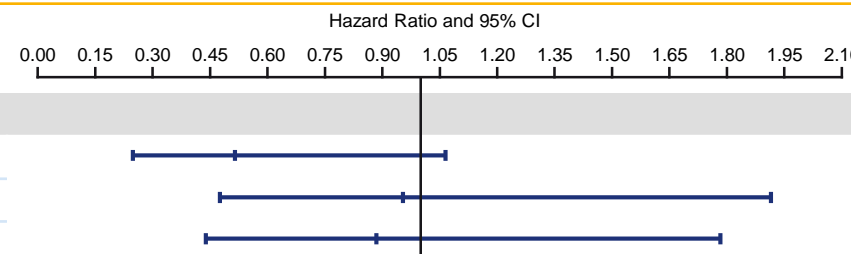
	N/N	E/E	HR	95% CI
FAS_elig_9cov_IPTW	76/35	36/26	0.354	0.17–0.73
MAS with 6 baseline variates	33/33	18/23	0.435	0.22–0.85
MAS with 9 baseline variates with MI	41/41	22/29	0.468	0.26–0.83



CAR-T

Tafa+LEN vs CD19 CAR-T

	N/N	E/E	HR	95% CI
FAS_elig_9cov_IPTW	76/50	36/17	0.515	0.25–1.07
MAS with 6 baseline variates	37/37	21/14	0.953	0.47–1.91
MAS with 9 baseline variates with MI	39/39	21/14	0.884	0.44–1.78



CAR-T, CD19 chimeric antigen receptor T-cell therapy; CI, confidence interval; E/E, number of events in tafasitamab plus lenalidomide and observational cohort, respectively; IPTW, inverse probability of treatment weighting; LEN, lenalidomide; MAS, matched analysis set; MI, multiple imputation; N/N, number of patients in the tafasitamab plus lenalidomide and observational cohort, respectively; Pola-BR, polatuzumab vedotin + bendamustine + rituximab; R2, rituximab + lenalidomide.

OS rate at 6 and 12 months for CAR-T therapies

OS rate (KM estimate)	Tafa + LEN	CAR-T in RE-MIND2	CAR-T in RWE study ¹
6-mo OS rate, %, (95% CI)	78.4 (61.4–88.5)	78.1 (59.3–89.0)	71 (61–82)
12-mo OS rate, %, (95% CI)	61.6 (43.9–75.2)	67.7 (45.8–82.3)	64 (54–77)

CAR-T, CD19 chimeric antigen receptor T-cell therapy; KM, Kaplan-Meier; LEN, lenalidomide; mo, month; OS, overall survival; RWE, real-world evidence; tafa, tafasitamab.

1. Sermer, et al. Blood Adv 2020;4:4669–79.