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Health-Related Quality of Life (HRQoL) in Patients with Diffuse Large B-Cell Lymphoma (DLBCL) Treated with Polatuzumab Vedotin, Rituximab, Cyclophosphamide, Doxorubicin and Prednisone (Pola-R-CHP) versus Rituximab, Cyclophosphamide, Doxorubicin, Vincristine and Prednisone (R-CHOP) in the Phase III POLARIX Study

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Summary

Patient-reported outcomes were used to characterize the patient experience in POLARIX.

Clinically meaningful improvements in disease-related symptoms were seen in both treatment arms.

These data showed that the **patient experience was similar** between those without progression receiving Pola-R-CHP or R-CHOP.

Improvements in HRQoL measures were rapid and sustained.

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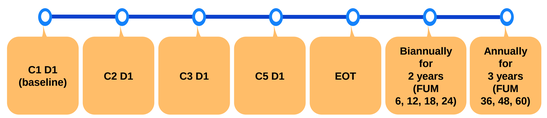
Background

- Patients with lymphoma report impaired HRQoL as a result of disease- and treatment-related symptoms.[1]
- However, there are limited dynamic HRQoL data using patient-reported outcome (PRO) measures from large prospective clinical trials in patients with previously untreated DLBCL.
- The Phase III POLARIX study (NCT03274492) demonstrated superior progression-free survival and a similar safety profile with Pola-R-CHP versus standard R-CHOP in patients with previously untreated DLBCL.[2]
- Analysis of patient-reported peripheral neuropathy symptoms in POLARIX using the Functional Assessment of Cancer Therapy/Gynecologic Oncology Group Neurotoxicity subscale have been reported previously.[3]
- In this analysis, PROs were used to measure QoL, physical functioning, fatigue, and lymphoma-related symptom scores to fully characterize the patient experience in POLARIX.

Methods

- In total, 879 patients with previously untreated DLBCL were randomized 1:1 to receive Pola-R-CHP (n=440) or R-CHOP (n=439).
- Lymphoma symptom scores were assessed using the Functional Assessment of Cancer Therapy-Lymphoma Subscale (FACT-LymS).[1]
- QoL, physical functioning, and fatigue were assessed using the European Organization for Research and Treatment of Cancer Quality of Life-Core 30 questionnaire (EORTC QLQ-C30).[4]
- Questionnaires were administered to patients without progression according to a defined schedule (**Figure 1**) until disease progression or study discontinuation.

Figure 1. Schedule of PRO questionnaire administration.



Note: Patients who experienced disease progression or discontinued treatment stopped reporting PROs.
C, Cycle; D, Day; EOT, end of treatment; FUM, Follow-up Month.

- Percentage of patients with clinically meaningful improvements, worsening, and no changes from baseline for HRQoL measures (lymphoma symptom scores, QoL, physical functioning, and fatigue) were reported based on validated thresholds[1,4] (**Table 1**).
- Changes over time in HRQoL measures were assessed.

Table 1. Thresholds* for clinically meaningful differences in PROs.

PRO Measures	Clinically Meaningful Improvement	No Change	Clinically Meaningful Worsening
Lymphoma Symptom Score[1]	≥3-point increase	-2-points to +2-points	≥3-point decrease
QoL[4]	≥8-point increase	-9-points to +7-points	≥10-point decrease
Physical Functioning[4]	≥7-point increase	-6-points to +9-points	≥10-point decrease
Fatigue[4]	≥9-point increase	-9-points to +8-points	≥10-point decrease

*Thresholds validated based on the FACT-LymS index and EORTC QLQ-C30 tool.[1,4]

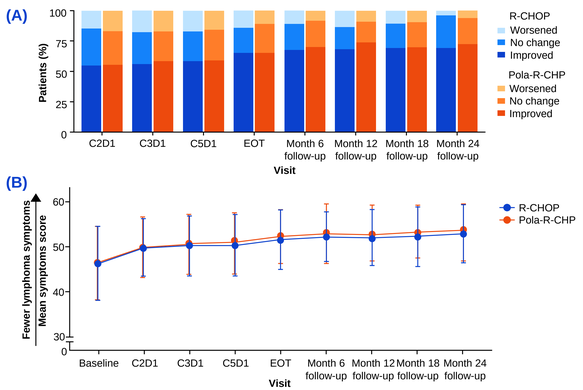
Results

- Questionnaire response rates for all PROs were high (>80%) throughout the study.

Lymphoma symptom scores

- Lymphoma symptom scores were similar in both treatment arms at baseline.
- Clinically meaningful improvements at any time point were seen in 82.3% of patients receiving Pola-R-CHP and 81.3% of those receiving R-CHOP
  - Both regimens caused rapid, sustained improvements in lymphoma symptom score in most patients after Cycle 1, which plateaued by the first follow-up assessment after EOT (**Figure 2**).

Figure 2. FACT-LymS lymphoma symptom score by (A) clinically meaningful difference* and (B) mean changes over time.†,‡

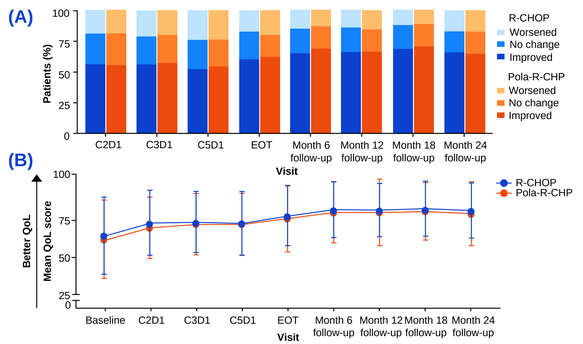


*Clinically meaningful difference in symptom score categorized by improvement, worsening, or no change were defined as ≥3-point increase, decrease, and in between, respectively; †Scored on a subscale of 0–60, with higher scores representing fewer symptoms; ‡Error bars represent mean score ± one standard deviation.

QoL

- Baseline scores for QoL were similar in both treatment arms.
- Clinically meaningful improvements in QoL scores at any time point compared with baseline were comparable in patients from either treatment group and plateaued by the first assessment after EOT (**Figure 3**).

Figure 3. EORTC QLQ-C30 QoL by (A) clinically meaningful difference* and (B) mean changes over time.†,‡

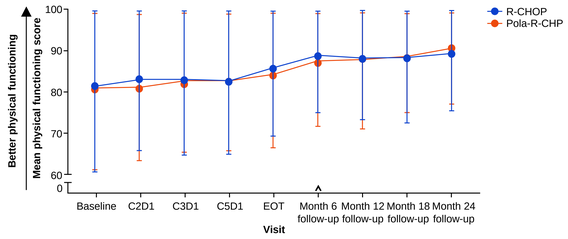


*Clinically meaningful difference in QoL categorized by improvement, worsening, or no change were defined as ≥8-point increase, ≥10-point decrease, and in between, respectively; †Scored on a subscale of 0–100, with higher scores representing fewer symptoms; ‡Error bars represent mean score ± one standard deviation.

Physical functioning scores

- At baseline, scores for physical functioning were similar in both treatment arms.
- Clinically meaningful improvements in physical functioning scores at any time point compared with baseline were similar between patients who received Pola-R-CHP (42.4%) or R-CHOP (39.6%).
- Improvements plateaued by the first assessment after EOT (**Figure 4**).

Figure 4. Mean changes over time* in EORTC QLQ-C30 physical functioning score.†

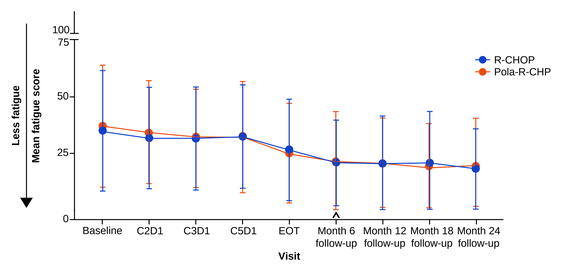


*Scored on a subscale of 0–100, with higher scores representing fewer symptoms; †Error bars represent mean score ± one standard deviation; ^31.5% of patients in the Pola-R-CHP arm and 30.9% of patients in the R-CHOP arm showed clinically meaningful improvements in physical functioning at Month 6 follow-up based on **Table 1**.

Fatigue score

- At baseline, scores for fatigue were similar in both treatment arms.
- Clinically meaningful improvements in fatigue symptom scores at any time point compared with baseline were also similar between patients who received Pola-R-CHP (74.8%) or R-CHOP (68.2%).
- Improvements plateaued by the first assessment after EOT (**Figure 5**).

Figure 5. Mean changes over time* in EORTC QLQ-C30 fatigue score.†



*Scored on a subscale of 0–100, with lower scores representing fewer symptoms; †Error bars represent mean score ± one standard deviation; ^57.4% of patients in the Pola-R-CHP arm and 56.1% of patients in the R-CHOP arm showed clinically meaningful improvements in fatigue at Month 6 follow-up based on **Table 1**.

Conclusions

- Both Pola-R-CHP and R-CHOP led to rapid improvements in aspects of HRQoL that were sustained through EOT and follow-up.
- Improvements in lymphoma symptom scores were seen in the majority of patients after Cycle 1 and were maintained in most patients.
- QoL, physical functioning and fatigue scores were similar at baseline between arms and were improved during and after treatment.
- These data may represent a benchmark for patient-reported HRQoL in frontline DLBCL in the modern era.

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