REAL WORLD CHARACTERISTICS, TREATMENT PATTERNS, AND OUTCOMES OF NEWLY DIAGNOSED DIFFUSE LARGE B CELL LYMPHOMA (DLBCL) PATIENTS TREATED IN FIRST LINE (1L) IN THE UNITED STATES (US) COMMUNITY ONCOLOGY SETTING

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INTRODUCTION

- Diffuse large B-cell lymphoma (DLBCL) is the most common subtype of non-Hodgkin lymphoma and is primarily treated in community oncology settings in the US[1,2]
- Rituximab plus CHOP (R-CHOP) has historically been the standard first-line (1L) therapy; however, outcomes vary and approximately 30–40% of patients relapse or are refractory to initial treatment.[3,4]
- The introduction of polatuzumab vedotin plus R-CHP (Pola-R-CHP) has expanded 1L treatment options, but real-world evidence describing its adoption and outcomes in community settings remains limited.[5]
- Understanding real-world treatment patterns and clinical outcomes in the community setting is critical to inform 1L therapy selection and identify unmet need in this population.

AIM

- To characterize real-world 1L treatment patterns and outcomes among patients with newly diagnosed DLBCL treated in US community oncology setting

METHODS

- **Study Design:** Retrospective observational cohort study using structured electronic health record (EHR) data from The US Oncology Network and affiliated non-Network community practices.
- **Study Population:** Adult (≥18 years) patients diagnosed with DLBCL, not otherwise specified (NOS) (**Figure 1**).
  - The index date was the initiation of an eligible 1L systemic therapy (i.e., R-CHOP, Pola-R-CHP, or Other) between January 1, 2020, and January 31, 2025.
  - Follow-up was assessed through September 2025, until date of death or last contact date.
- **Statistical Analysis:**
  - Baseline demographics and treatment patterns (**Table 1**) were assessed overall and by 1L therapy. Line of therapy assignment was based on regimen start and stop dates.
  - Time-to-next-treatment or death (TTNTD) was estimated in months from index to initiation of a 2L therapy or death date. Patients without an event were censored on last contact date. TTNTD was estimated using Kaplan–Meier methods (**Figure 2**).

LIMITATIONS

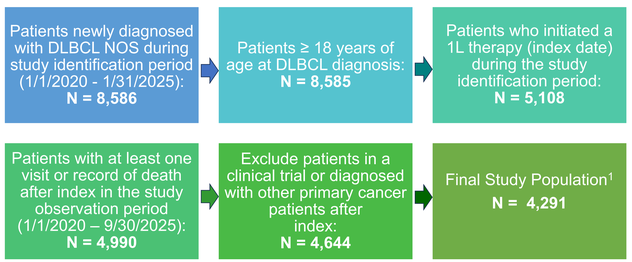
- The structured data sourced from this oncology-specific EHR system captures outpatient encounters for patients receiving treatment within The US Oncology Network and non-Network practices; it is not used to collect data for research purposes but for clinical practice, which may contribute to missingness.
- Treatment administered in academic hospitals or oncology centers outside of this data source is not reflected in this analysis. Line of therapy was based on drug start and stop dates in structured data. Additional detail on treatment information (e.g., reasons for discontinuation or initiation) are captured in unstructured data fields like progress notes and were not included in this analysis.

CONCLUSIONS

- In this study, 1L Pola-R-CHP utilization increased over time, but 1L R-CHOP remained the most common 1L therapy.
- 2-year TTNTD was similar for patients treated with 1L R-CHOP and 1L Pola-R-CHP, although additional follow-up time is needed to evaluate the effectiveness of 1L Pola-R-CHP in later years.
- These findings highlight an unmet need in optimizing frontline therapy and novel therapy development, to improve real-world effectiveness.

RESULTS

Figure 1. Study Attrition Diagram

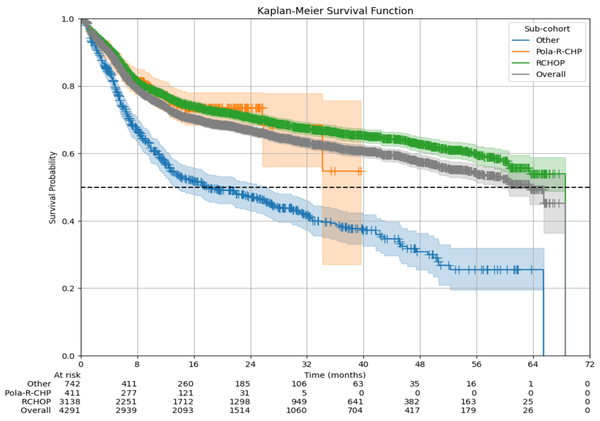


1. Among the 4,291 patients in the study population, 1L regimens included: 3,138 R-CHOP (73%), 411 Pola-R-CHP (10%), and 742 Other (17%; 83% R-mini-CHOP and 17% other systemic chemotherapy).

Table 1: Baseline Characteristics (Overall & by 1L Therapy)

Characteristic	Overall (n=4,291)	1L R-CHOP (n=3,138)	1L Pola-R-CHP (n=411)	1L Other (n=742)
Median age at diagnosis (Q1, Q3)	70 (61, 78)	68 (59, 75)	69 (61, 75)	82 (78, 85)
Median follow-up time in months (Q1, Q3)	37.61 (23.13, 53.29)	41.56 (27.55, 55.56)	17.84 (13.00, 24.61)	36.11 (22.04, 51.84)
Year of 1L initiation, n (%)				
2020	834 (19.4%)	715 (22.8%)	0 (0%)	199 (16.0%)
2021	798 (18.6%)	676 (21.5%)	0 (0%)	122 (16.4%)
2022	840 (19.6%)	664 (21.2%)	13 (3.2%)	163 (22.0%)
2023	885 (20.6%)	578 (18.4%)	141 (34.3%)	166 (22.4%)
2024	876 (20.4%)	476 (15.2%)	242 (58.9%)	158 (21.3%)
2025 (January)	58 (1.4%)	29 (0.9%)	15 (3.6%)	14 (1.9%)
2-Year TTNTD, 95% Confidence Interval (CI)	66.8% (65.2%, 68.3%)	70.6% (68.8%, 72.3%)	73.6% (68.4%, 78.1%)	47.3% (43.2%, 51.3%)

Figure 2: TTNTD in Months (Overall & by 1L Therapy)



KEY FINDINGS

- Among 4,291 patients with newly diagnosed DLBCL NOS treated in US community oncology practices, median age at diagnosis was 70 years overall; age at diagnosis was similar for 1L R-CHOP-treated patients and 1L Pola-R-CHP-treated patients (68 and 69 years) while age at diagnosis was older (82 years) for patients treated with Other 1L regimens, consisting primarily of dose-reduced 1L R-CHOP (R-mini-CHOP), indicated for older, more frail patients.
- Adoption of 1L Pola-R-CHP increased from 2% in 2022 to 28% in 2024, while 1L R-CHOP utilization declined over time (22.8% in 2020 to 15.2% in 2024) but remained the most common 1L treatment.
- Median follow-up was 37.6 months, median TTNTD was 63.5 months overall, 68.5 months for 1L R-CHOP, NR for 1L Pola-R-CHP, and 17.9 months for 1L Other. 2-year TTNTD was similar between 1L R-CHOP (70.6%; 95% CI: 68.8%, 72.3%) and 1L Pola-R-CHP (73.6%; 95% CI: 68.4%, 78.1%) but lower for 1L Other (47.3%; 95% CI: 43.2%, 51.3%).

ACKNOWLEDGMENTS & DISCLOSURES

BF and MP are employees of AstraZeneca (AZ), Gaithersburg, MD, USA. AT was an employee of AZ at the time the study was conducted. HL, IZ, JG, HE are employees of Ontada, Boston, MA, USA. DA (Andorsky) is an employee of Rocky Mountain Cancer Centers, Boulder, CO, USA, a practice within The US Oncology Network.

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