

SURVIVAL OUTCOMES IN PATIENTS WITH DUAL B-CELL AND T-CELL LYMPHOMA DIAGNOSES

S. S. KHAZNADAR¹, C. A. HUMMEL¹, Z. E. HUNZEKER¹, J. W. HILL¹, K. MURPHY¹, A. A. AYERS¹, J. HENDERSON¹, T. SAINZ ZUNIGA², C. R. FLOWERS¹, M. HAMILTON¹, M. GREEN¹, F. VEGA², A. C. LIONEL¹, D. CHIHARA¹

¹ Department of Lymphoma and Myeloma, The University of Texas MD Anderson Cancer Center, Houston, TX, USA

² Department of Hematopathology, The University of Texas MD Anderson Cancer Center, Houston, TX, USA



INTRODUCTION

Prior epidemiological data demonstrated a nearly fivefold increased bidirectional risk between B-cell lymphomas (BCL) and T-cell lymphomas (TCL). Sequential dual-lineage lymphomas are rare, with limited outcome data. We report outcomes from a single-center cohort.

METHOD

We retrospectively identified 116 patients with dual BCL and TCL diagnoses from separate biopsies at MD Anderson Cancer Center between January 2013 and May 2026. Progression-free survival (PFS) was calculated after first-line therapy for each lymphoma diagnosis and overall survival (OS) from time of first lymphoma diagnosis. Variables analysed included lymphoma subtypes, time to second lymphoma, overall response rate (ORR), and relapse rates.

CONCLUSIONS

Outcomes in patients with dual lineage lymphomas are influenced by subtype and sequence. Patients with combinations of peripheral TCL and large BCL had the poorest OS. Across subtypes, ORR and PFS were better when lymphoma occurred first rather than second. The inferior outcomes of second primary lymphomas may reflect differences in underlying disease biology related to previous treatment and warrant further investigation.

CONTACT INFORMATION

Lionel C. Anath, MD, PhD
ACLionel@mdanderson.org
Dai Chihara, MD, PhD
DChihara@mdanderson.org

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RESULTS

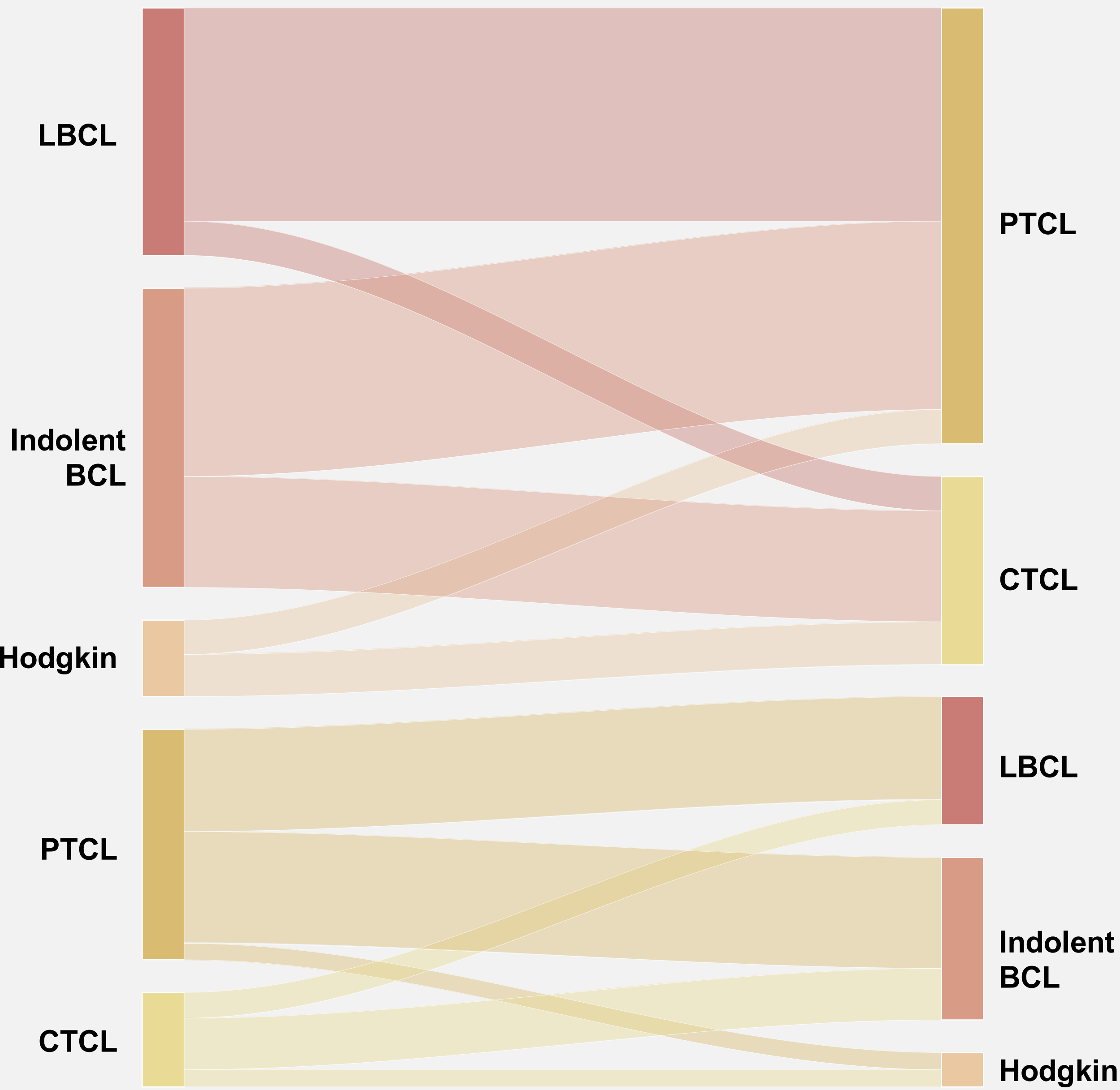


Figure 1 Alluvial plot illustrating sequence from first to second lymphoma diagnosis. Band width is proportional to the number of patients transitioning between lymphoma subtypes, highlighting the relative frequency and directionality of specific subtype combinations. LBCL: large B-cell lymphoma, PTCL: peripheral T-cell lymphoma, CTCL: cutaneous T-cell lymphoma. n= 111.

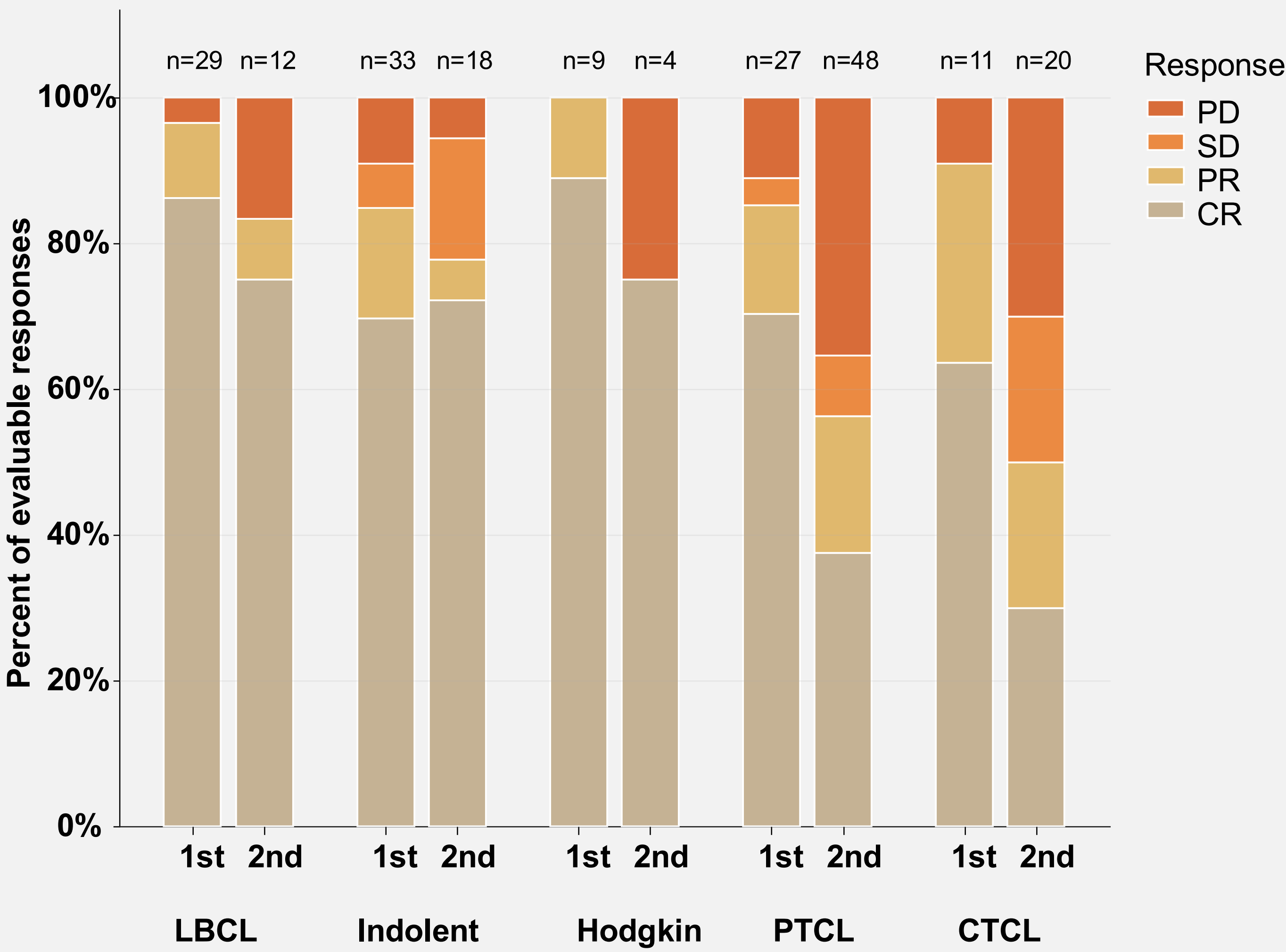


Figure 2 Best response to first-line therapy according to lymphoma subtype and whether the lymphoma occurred as the first or second diagnosis. Bars show the proportion of evaluable patients achieving complete response (CR), partial response (PR), stable disease (SD), progressive disease (PD). Evaluable patient numbers are shown above each bar. LBCL: large B-cell lymphoma, PTCL: peripheral T-cell lymphoma, CTCL: cutaneous T-cell lymphoma

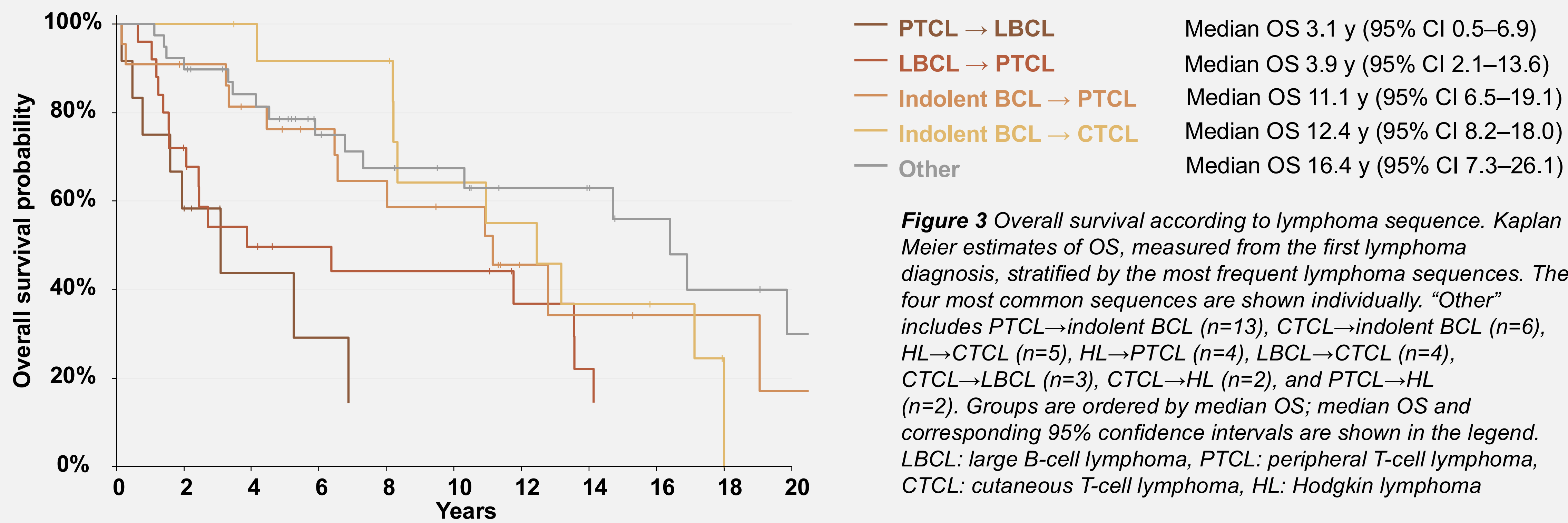


Figure 3 Overall survival according to lymphoma sequence. Kaplan Meier estimates of OS, measured from the first lymphoma diagnosis, stratified by the most frequent lymphoma sequences. The four most common sequences are shown individually. “Other” includes PTCL→indolent BCL (n=13), CTCL→indolent BCL (n=6), HL→CTCL (n=5), HL→PTCL (n=4), LBCL→CTCL (n=4), CTCL→LBCL (n=3), CTCL→HL (n=2), and PTCL→HL (n=2). Groups are ordered by median OS; median OS and corresponding 95% confidence intervals are shown in the legend. LBCL: large B-cell lymphoma, PTCL: peripheral T-cell lymphoma, CTCL: cutaneous T-cell lymphoma, HL: Hodgkin lymphoma

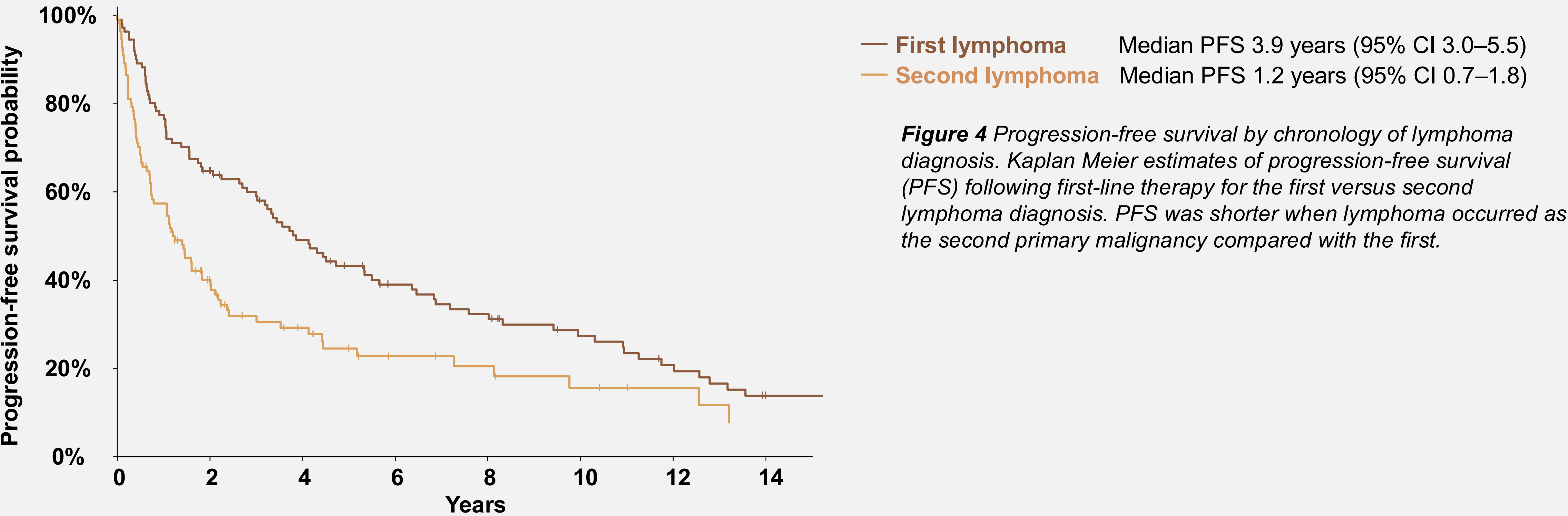


Figure 4 Progression-free survival by chronology of lymphoma diagnosis. Kaplan Meier estimates of progression-free survival (PFS) following first-line therapy for the first versus second lymphoma diagnosis. PFS was shorter when lymphoma occurred as the second primary malignancy compared with the first.