

TRANSPLANT ELIGIBILITY IN DLBCL: A REAL-WORLD ANALYSIS OF GERMAN HOSPITAL BILLING DATA

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OBJECTIVE

Current DLBCL treatment guidelines

Management of diffuse large B-cell lymphoma (DLBCL) in the second-line and later (2L+) setting is guided by eligibility for stem cell transplantation (SCT). Patients ineligible for transplantation (**TIE**) are typically treated with conventional or novel targeted therapies. In contrast, transplant-eligible (**TE**) patients usually receive salvage immunochemotherapy (e.g., R-ICE, R-DHAP, R-GDP), followed by high-dose chemotherapy (HDCT) and SCT. Recent guideline updates have also incorporated CAR-T cell therapy as an option for TE patients.

Proportion of transplant-eligible patients

While published literature indicates that about 50% of DLBCL patients are transplant-eligible, real-world evidence from Germany on the relative proportions of TE versus TIE patients is lacking. However, hospital billing data in Germany can provide an approximation of the number of patients treated via the TE pathway.

Aim

The objective of this study was to estimate the distribution between TE and TIE patients using real-world inpatient billing data.

METHODS

Data base: Real-world inpatient billing data (case-level; anonymized and aggregated) from all German hospitals: published by the German Institute for the Hospital Remuneration System (InEK)

Years: 2022-2024

STEP 1: BASE POPULATION DLBCL

All inpatient cases with main diagnosis DLBCL (ICD-10 code C83.3) were identified.

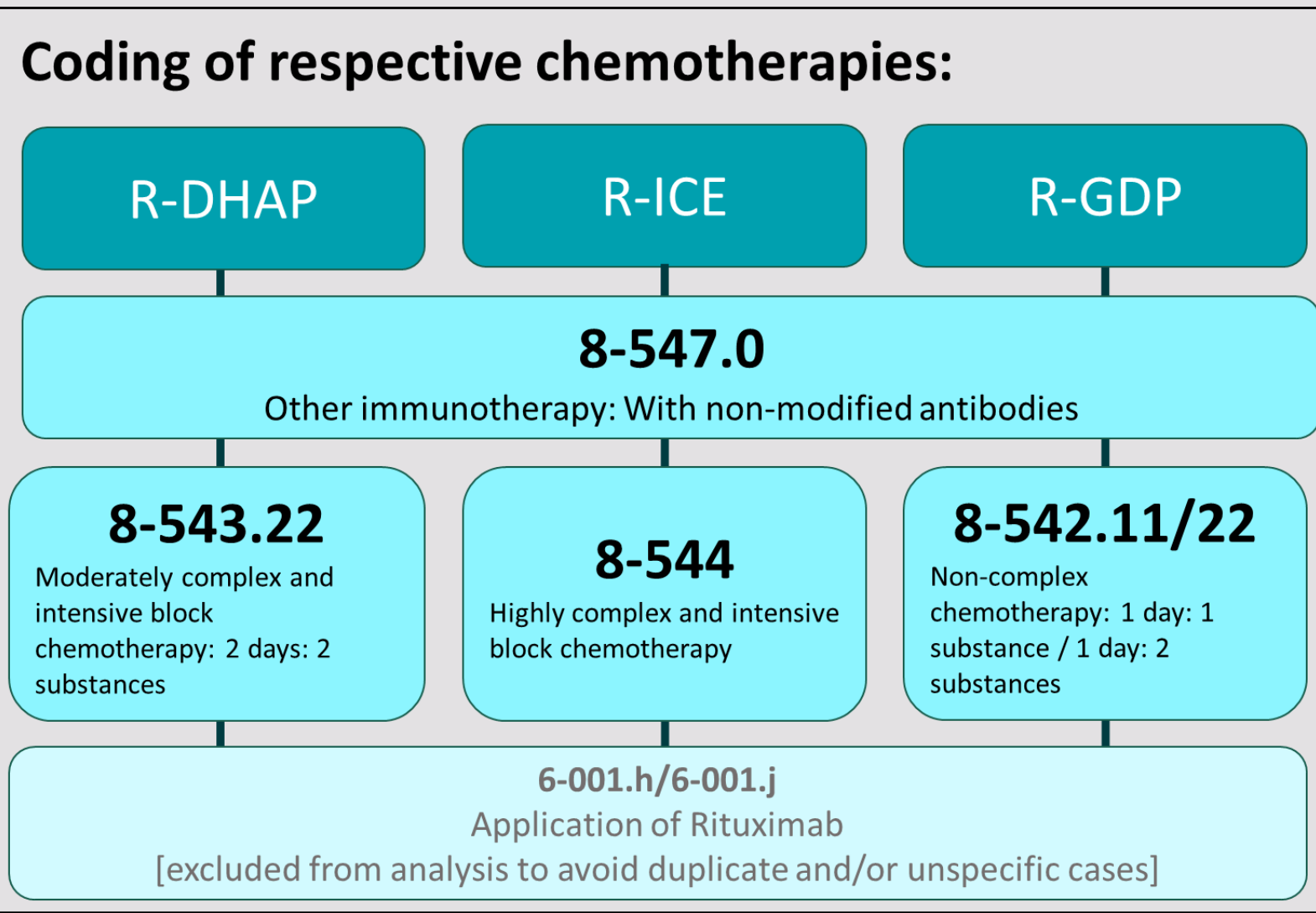
STEP 2: 2L+ POPULATION

Focussing only on 2L+ cases, the proportion of 1L cases was substracted (calculatory due to aggregated data) from the base population. Therefore, the proportion of patients cured after 1L treatment (60-70%) was obtained from the DLBCL therapy guideline, resulting in two scenarios: **30% (Scenario 1)** to **40% (Scenario 2)** of the base population receive 2L+ treatment(s).

STEP 3: TE POPULATION

To determine the size of the TE population, the number of cases receiving relevant salvage immunochemotherapy regimes was calculated. The R-DHAP, R-ICE, and R-GDP regimens are indicators for the following high-dose chemotherapy and SCT.

Coding (procedure codes) of the above-mentioned regimes was defined as follows:



Legend
R: Rituximab
D: Dexamethasone
HA: High-dose cytarabine (Ara-C)
P: Cisplatin
R: Rituximab
I: Ifosfamide
G: Carboplatin
E: Etoposide
R: Rituximab
G: Gemcitabine
D: Dexamethasone
P: Cisplatin

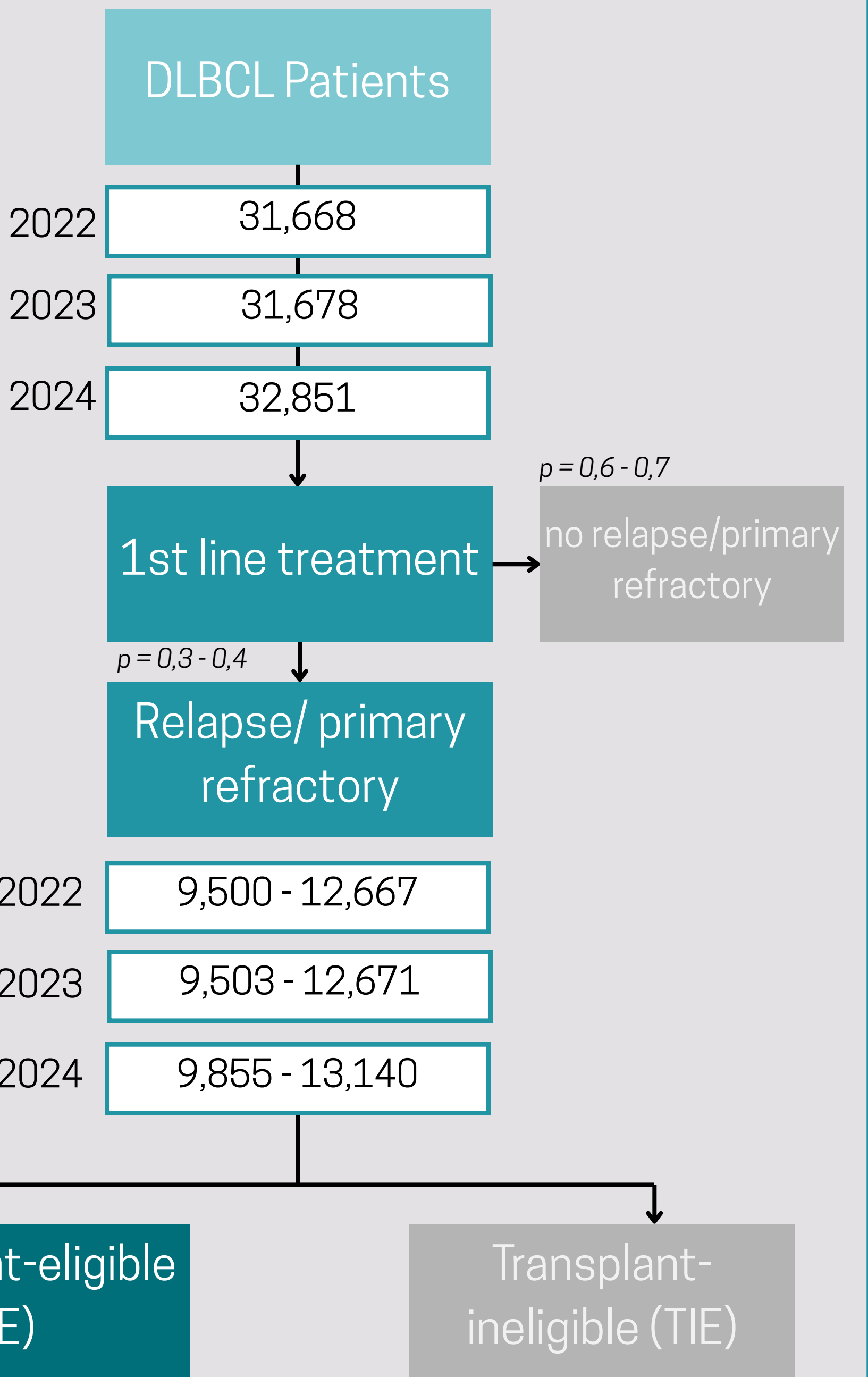
Case numbers of each regime were summed up to calculate the TE population size

STEP 4: TE SHARE

The proportion of TE cases in the 2L+ ppulation was calculated.

RESULTS

STEP 1: BASE POPULATION DLBCL



STEP 2: 2L+ POPULATION

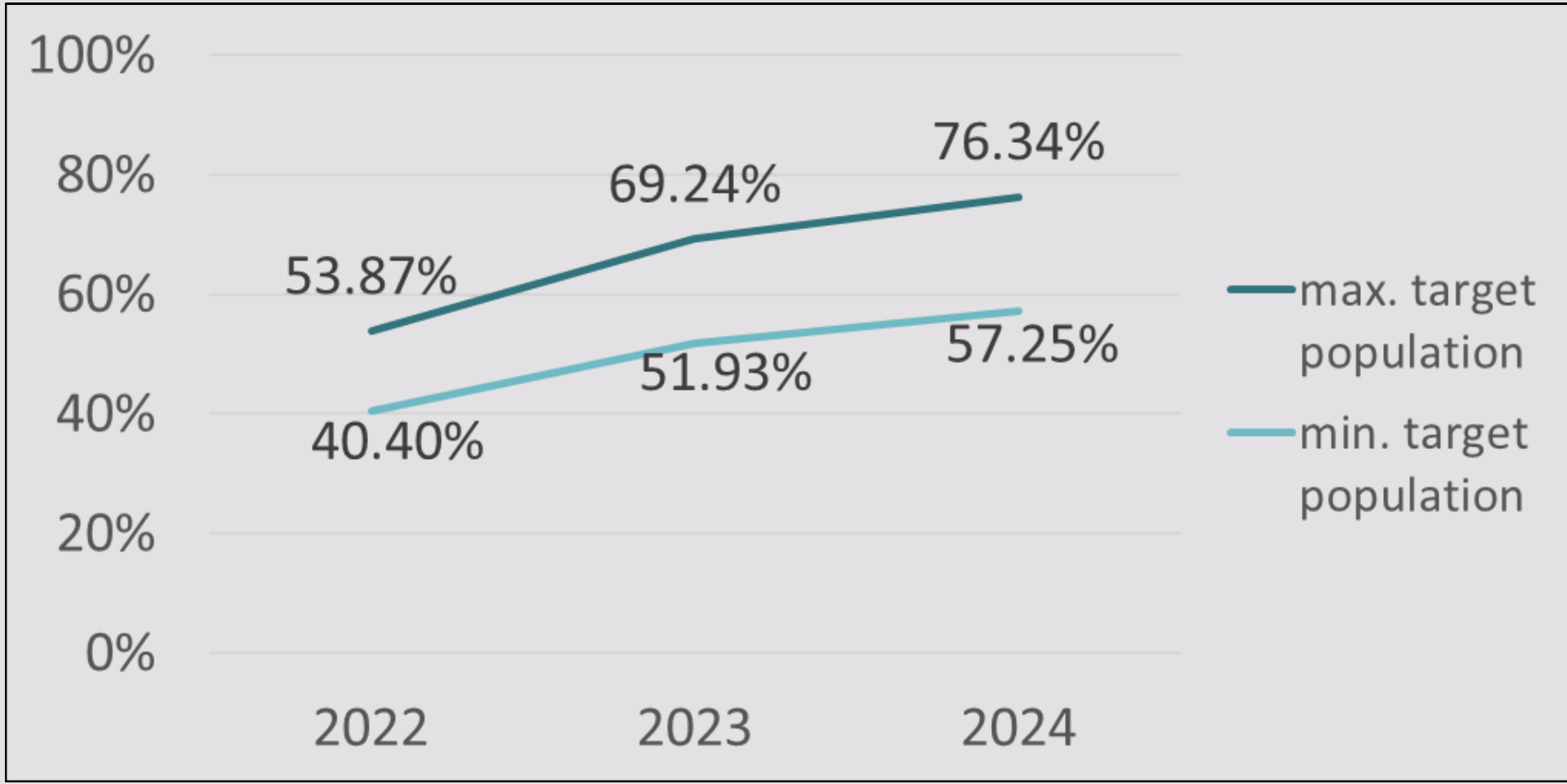
Minimum and maximum value/scenario, based on assumed rate of relapsed/ primary refractory patients

STEP 3: TE POPULATION

	R-DHAP	R-ICE	R-GDP (two codes)	
2022	574	2,184	740+1,620	Σ 5,118
2023	506	2,340	811+2,923	Σ 6,580
2024	522	2,489	850+3,662	Σ 7,523

STEP 4: TE SHARE

In both scenarios, transplant eligibility rates increased between 2022 and 2024.



DISCUSSION

This analysis presents a method to estimate the distribution of transplant eligibility among DLBCL patients, using real-world inpatient billing data. The findings challenge the commonly assumed balance between transplant-eligible and -ineligible groups, **suggesting a potential shift toward a higher proportion of transplant-eligible patients.**

Limitations:

- Inpatient focus: The analysis includes only inpatient hospital cases, excluding outpatient cases due to the absence of a centralized outpatient billing database.
- Broader case inclusion: The estimated 2L population may include patients beyond the second line of therapy, potentially leading to an overestimation of cases.
- AutoSCT intention vs. actual treatment: The analysis captures patients intended for SCT rather than those who ultimately responded to salvage chemotherapy and underwent SCT.

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