Where Are the Trials? Geographic Imbalances in CAR-T Cell Therapy Access for Lymphoma

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INTRODUCTION

CAR T-cell therapy has changed outcomes in **relapsed/refractory lymphoma**, but trial availability — and early access to advanced cellular therapy — may be unevenly distributed worldwide.

AIM

We assessed the global registry landscape of CAR T-cell therapy **trials for lymphoma** and explored barriers reported by collaborators in resource-constrained settings.

METHOD

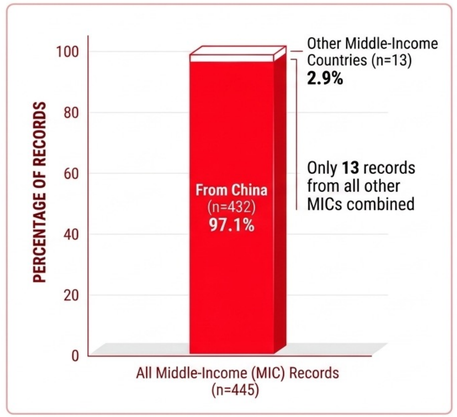
We performed a cross-sectional registry-based study of lymphoma CAR T-cell studies registered in **ClinicalTrials.gov** and the **EU Clinical Trials Register** from **2007 to 2026**. Records were deduplicated across registries using public identifiers, sponsor, title, phase, and start year, with manual review of uncertain matches. Contextual collaborator input from **Pakistan**, **India**, **Lebanon**, and **Albania** was summarized descriptively and was not formal qualitative research.

No hypothesis was tested. The primary outcome measures were prespecified as the absolute numbers and percentages. Prespecified variables were study type, recruitment status, age eligibility, interventional-study phase, and country income group using World Bank classifications. Combined phases were preserved as registered.

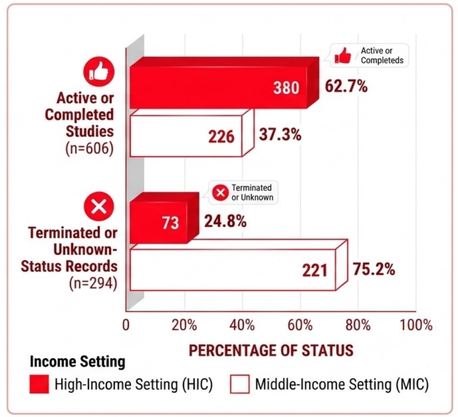
RESULTS

We identified **917 records**. Among records with classifiable study type, 845 were interventional, 64 observational, and 7 expanded-access. **Pediatric-only eligibility was rare** (5 trials), and only **289 records** permitted enrollment of participants **younger than 18 years**. Early-phase development predominated among interventional studies. **No trials were registered in low-income countries**. Although nearly half of trial records were coded to middle-income settings**, 432 of 445 middle-income-country records** (97.1%) were from **China**. **Active or completed** studies were concentrated in **high-income settings** (380/606, 62.7%), whereas **terminated or unknown-status** records were concentrated in **middle-income** settings (221/294, 75.2%). Collaborators identified financial barriers, regulatory and ethical constraints, limited specialized infrastructure, workforce training gaps, and absent referral pathways as major obstacles to CAR T-cell access.

GRAPH 1: MIDDLE-INCOME COUNTRY RECORDS: THE DOMINANCE OF CHINA



GRAPH 2: GLOBAL CONCENTRATION OF TRIAL STATUS BY INCOME SETTING



CONCLUSIONS

CAR T-cell trial access for lymphoma is **highly inequitable**. Apparent middle-income representation is driven overwhelmingly by China, **low-income countries remain absent**, and **pediatric-only trial access is minimal**. These findings support deliberate **trial decentralization**, regional capacity-building, and referral pathways, plus national advocacy to build credibility for accessing clinical trials aligned with need, not geography.

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