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Global Disparities in Access to CAR-T Cell Therapy for Hematologic Malignancies Emerging Challenges in Equitable Cellular Therapy Delivery

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INTRODUCTION

Chimeric antigen receptor T-cell (CAR-T) therapy has transformed outcomes in relapsed and refractory hematologic malignancies, producing durable responses in aggressive lymphomas, leukemias, and multiple myeloma. However, access to CAR-T therapy remains highly unequal worldwide. We reviewed emerging evidence regarding **geographic**, **economic**, **infrastructural**, and **regulatory** disparities affecting global CAR-T access.

METHODS

A structured literature review was performed evaluating access to CAR-T therapy in hematologic malignancies.

Sources:

1. Pubmed
2. Embase
3. Conference Proceedings
4. Health Policy analysis

DOMAINS ASSESSED

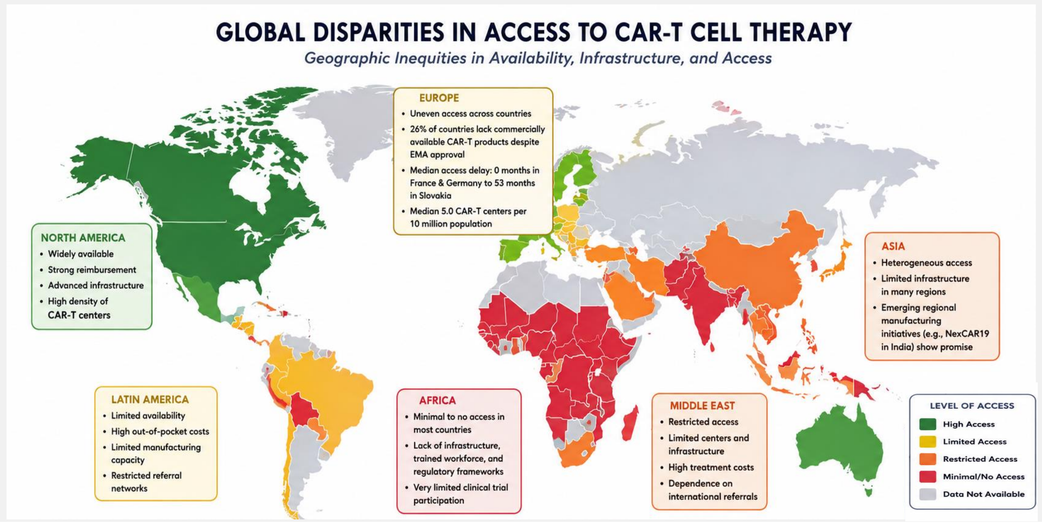
- Reimbursement
- Infrastructure
- Manufacturing capacity
- Treatment availability
- Low-middle income country Barriers

RESULTS

26%	$350K+	5	0 - 53
of EMA-approved countries lack commercially available CAR-T products	Cost per dose Excluding hospitalization and supportive care	Median qualified CAR-T centers per 10 million population	Months range of median access delays across Europe

- Limited Manufacturing Infrastructure
- Complex Regulatory Pathways
- Inadequate Trained Workforce
- Restricted Referral Networks

More than 1500+ CAR-T clinical trials have been initiated globally, but remain concentrated in high-income countries



CONCLUSION

- CAR-T therapy remains inaccessible to large populations because of intersecting economic, infrastructural, regulatory, and workforce barriers.
- Access disparities are present even among high-income countries and are magnified in LMICs.
- Equity-oriented delivery will require health-system planning beyond product approval alone

ACTIONABLE SOLUTIONS

1. **Regional manufacturing** — Build local GMP capacity and reduce reliance on centralized export models
2. **Streamlined regulation** — Coordinate approvals, quality standards, and cross-border policy frameworks
3. **Innovative reimbursement** — Use sustainable coverage models, risk-sharing and outcome-linked payments
4. **Decentralized delivery** — Expand qualified centres, workforce training, referrals and follow-up care

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