

Adoption of Approved CAR-T Therapies Among U.S. Community Hematologists/Oncologists

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Background

- Several chimeric antigen receptor T-cell (CAR-T) therapies are approved in the U.S. for the treatment of relapsed or refractory large B-cell lymphoma (R/R LBCL).
- Almost half of all U.S. patients with cancer are treated in community-based oncology practices.
- Understanding the adoption of novel therapies by community hematologists/oncologists is critical to assessing their future utilization and impact on clinical outcomes.

Objective

- To assess one-year temporal trends of CAR-T utilization among community hematologists/oncologists and their perceptions regarding the barriers to adoption of CAR-T therapies in R/R LBCL.

Materials & Methods

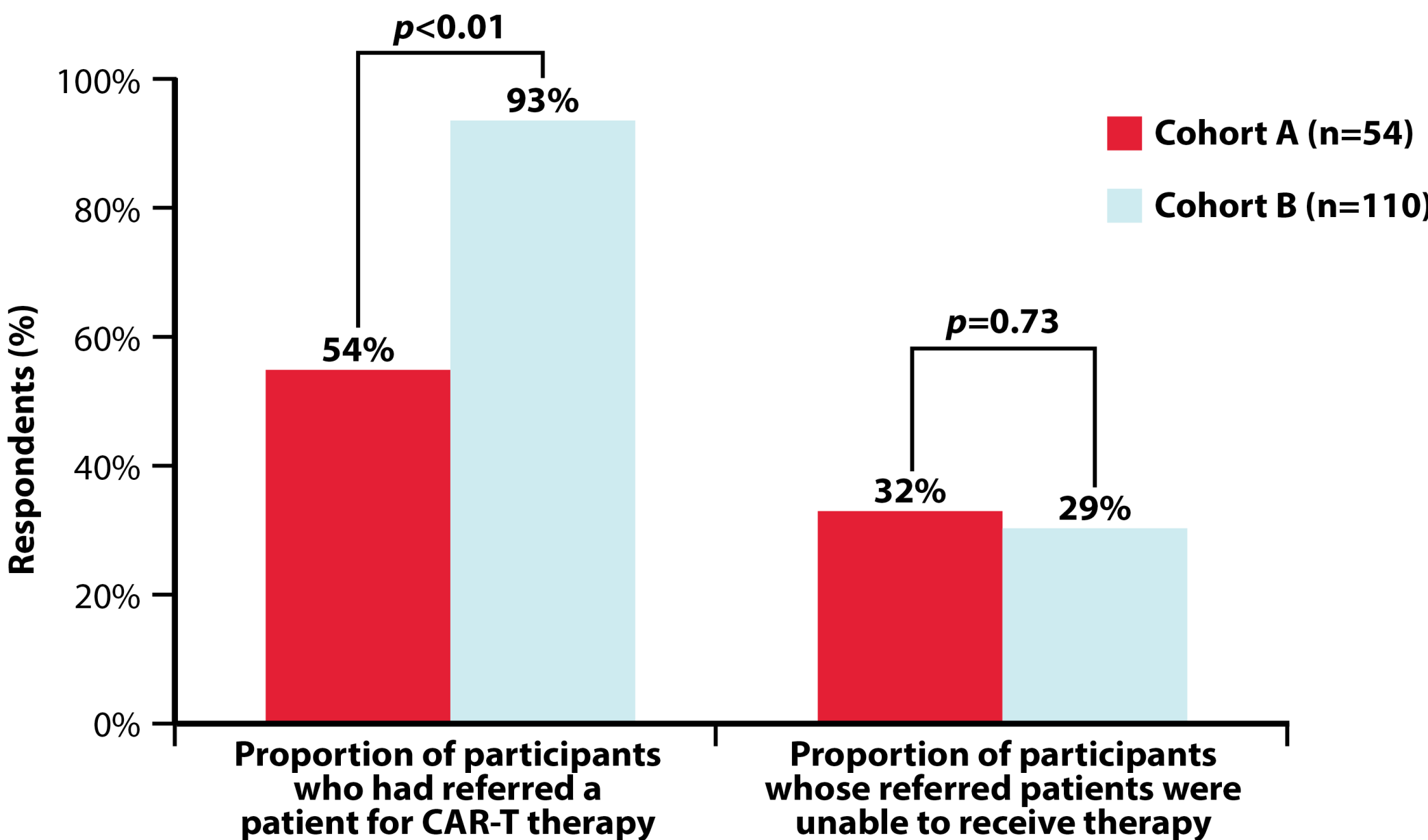
- U.S. community hematologists/oncologists were convened at live meetings held in February 2019 (cohort A) and Winter 2020 (cohort B).
- Participants were queried on their CAR-T therapy perceptions, utilization, and referral patterns.
- Responses were captured via a web-based survey and live polling during the meetings.

Results

Table 1. Practice Characteristics and Participant Demographics. Cohort A and B were similar in distribution of practice settings, medical specialty, and patient volume.

Practice Characteristics and Participant Demographics, n (%)	Cohort A (n=59)	Cohort B (n=168)
Practice setting		
Solo practitioner	5 (8%)	19 (11%)
Small, private, community practice (2-5 physicians)	5 (8%)	29 (17%)
Medium-sized, private, community practice (6-10 physicians)	10 (17%)	23 (14%)
Large, private, community practice (>10 physicians)	10 (17%)	23 (14%)
Community practice owned by a hospital or academic center	26 (44%)	40 (24%)
Other	3 (5%)	34 (20%)
Primary medical specialty		
Hematology oncology	36 (61%)	118 (70%)
Medical oncology	20 (34%)	45 (27%)
Other	3 (5%)	5 (3%)
Patient volume per day		
1-10	3 (5%)	16 (10%)
11-20	31 (53%)	94 (56%)
>20	25 (42%)	58 (35%)

Figure 1. Overall Patient Referrals. Significantly more participants in Cohort B had referred patients for CAR-T in the preceding 6 months. Equal proportions of referrals were still pending CAR-T re-infusion.



Results, cont.

Figure 2. Patient Referrals of Advisors Polled at Two Timepoints. In a matched analysis of 30 physicians surveyed at both timepoints, rates of CAR-T referral and non-receipt of product infusion were not significantly different.

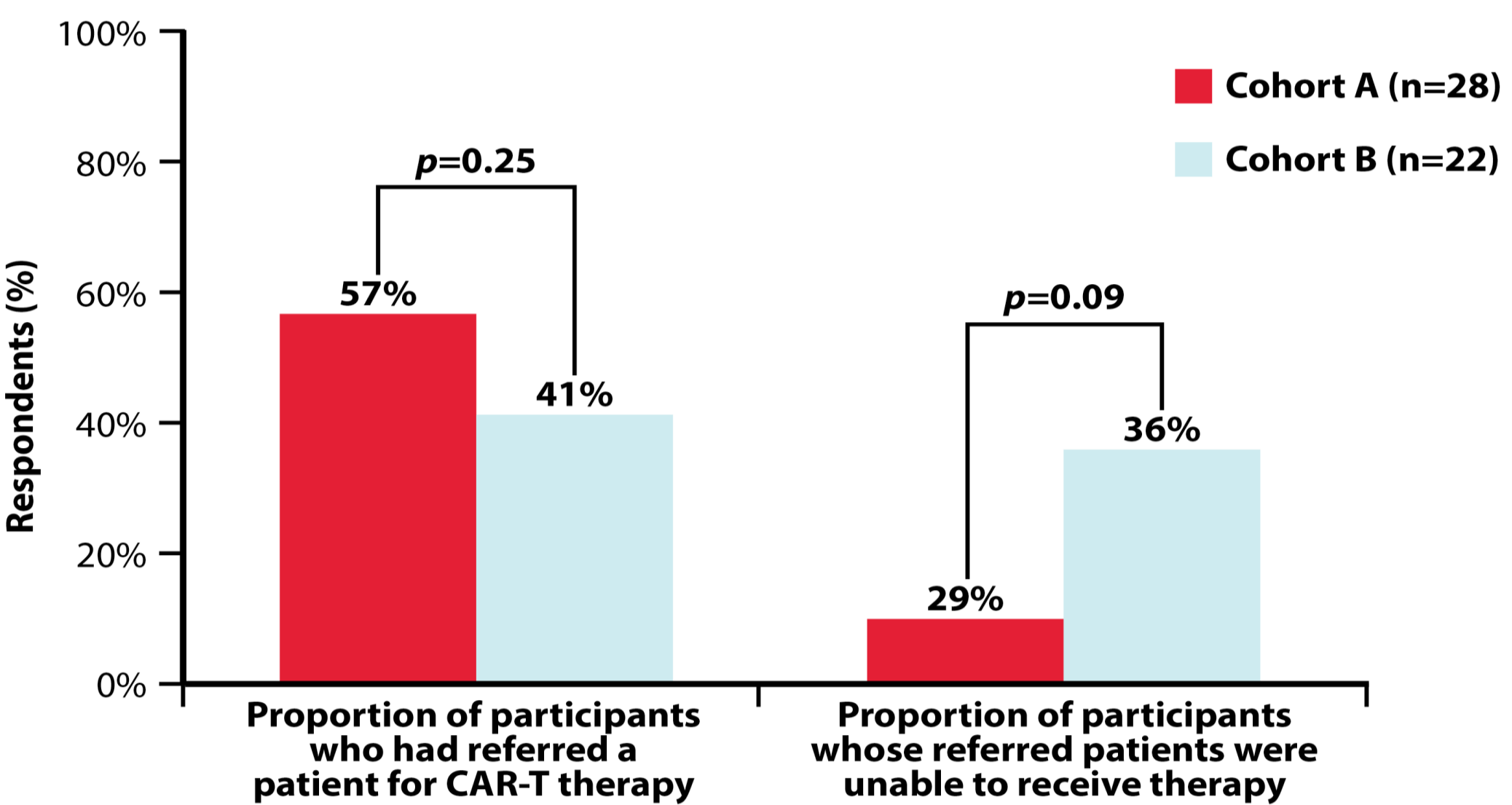
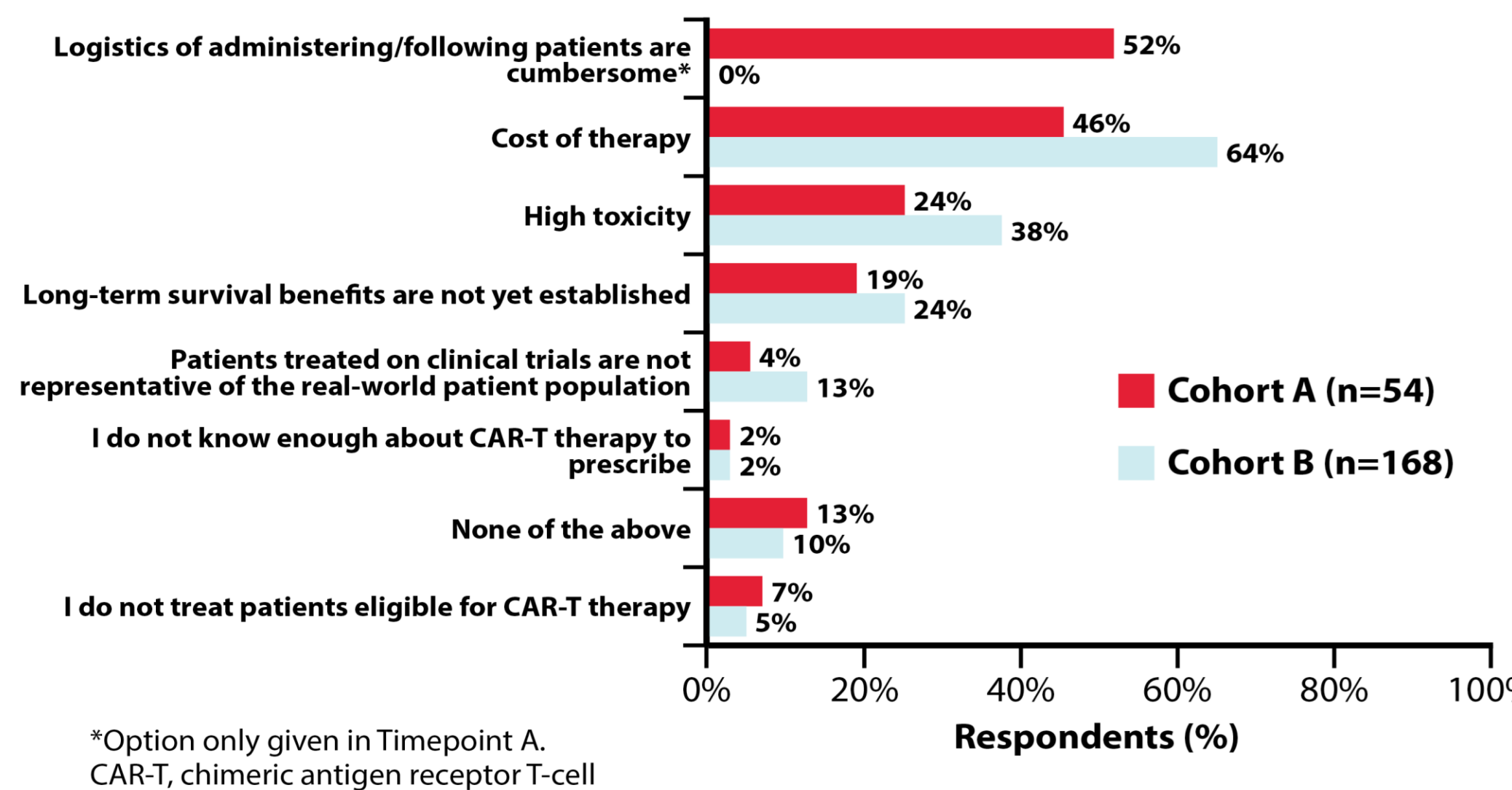


Figure 3. Barriers to CAR-T Therapy and Referrals. Major barriers to CAR-T utilization included cost, toxicity, and insufficient long-term survival data. Barriers specific to CAR-T process included slow approval process by payers, patient deterioration, and lack of communication from CAR-T centers.



*Option only given in Timepoint A. CAR-T, chimeric antigen receptor T-cell

Results, cont.

Table 2. Other Barriers to CAR-T Therapy. Logistic issues were further explored in Cohort B: the most common payer-specific challenge was slow approval process; the most common site-specific challenge was slow intake process; a common patient-specific challenge was health deterioration.

Other Barriers to CAR-T Therapy, %	Cohort B
Barriers During Intake Process (n=168)	
Slow approval process by payers	27%
Slow intake process at the CAR-T center	23%
High rate of denials by payers	15%
Identifying a CAR-T certified center in my geographical vicinity	13%
CAR-T center declining to treat patient (s) (for medical reasons)	9%
CAR-T center choosing to treat patient(s) with stem cell transplant instead of CAR-T therapy	8%
Other	4%
I do not encounter any challenges	15%
I have not referred a patient for CAR-T therapy	23%
Barriers Post-Referral (n=110)	
Patients deteriorated before CAR-T product could be administered	64%
Lack of communication from CAR-T center during the process	19%
Lack of clear instructions to me/primary oncologist regarding follow-up	14%
Lack of clear instructions to the patient at discharge regarding follow-up	6%
CAR-T product could not be manufactured	5%
Other	7%
I do not encounter any challenges	19%
I have not referred a patient for CAR-T therapy	1%

Conclusion

- CAR-T referrals increased, but rate of therapy infusion was unchanged.
- Cost and toxicity remain significant barriers to utilization.
- Support from manufacturers, payers, and CAR-T centers are vital to facilitate timely access to therapy for patients.