

Real-World Assessment of Cost and Utilization Trends of Chimeric Antigen Receptor T-Cell Therapy and Bispecific T-Cell Engager Antibody Therapy Among Different Sites of Care



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Background

- As of early 2026, there are 7 chimeric antigen receptor T-cell (CAR T) therapies and 10 bispecific T-cell engagers (BiTE) marketed in the United States. Due to CAR T and BiTE durability, these drugs are increasingly becoming standard of care; however, cost, access, and adverse event management have been barriers to more widespread utilization among eligible patients.¹ Historically, CAR T administration has been limited to mostly academic centers with the staffing and infrastructure to safely administer the therapy in compliance with prior Risk Evaluation and Mitigation Strategy (REMS) program requirements.^{1,2} In 2025, the FDA announced that REMS for BCMA and CD-19-directed CAR T were discontinued, and labeling updates for post-administration monitoring requirements and restrictions were reduced.³ This creates an opportunity for more outpatient treatment sites to build the required infrastructure to safely provide CAR T and BiTE therapy at lower acuity and lower-cost sites of care (SOC).
- Historically, real-world utilization of CAR T therapy has been concentrated in highly specialized, resource-intensive hospitals. Analysis of claims data from 2022 or earlier concluded that the majority of CAR T therapy for B-cell lymphoma had been administered inpatient, ranging from 79%–85% for Medicare and commercially insured members, respectively.^{4,5}
- Another analysis similarly concluded that although CAR T administration sites increased threefold (42 to 125 sites) from 2018 to 2022, the proportion of CAR T administered in an outpatient setting remained approximately 9%. Three administration sites accounted for 40% of all outpatient CAR T claims and overall CAR T administration was concentrated within urban academic hospitals.⁶
- For BiTE therapies, a 2020 survey from the Association of Cancer Care Centers (ACCC) identified opportunities to address barriers to caring for patients on BiTE therapy and improve adoption of BiTE therapy in the community oncology setting.⁷ In response, the ACCC and Society for Immunotherapy of Cancer have been actively engaging community oncology providers to educate and create guidelines to increase BiTE and CAR T in the outpatient setting.
- As administration requirements and professional perspectives on CAR T and BiTE therapies have evolved, updated real-world data are needed to understand whether patterns of use are shifting and how costs differ across sites of care as adoption expands.

Objective

The objective is to evaluate real-world utilization trends and treatment-day costs of CAR T and BiTE therapies across different sites of care in a large, commercially insured population.

Methods

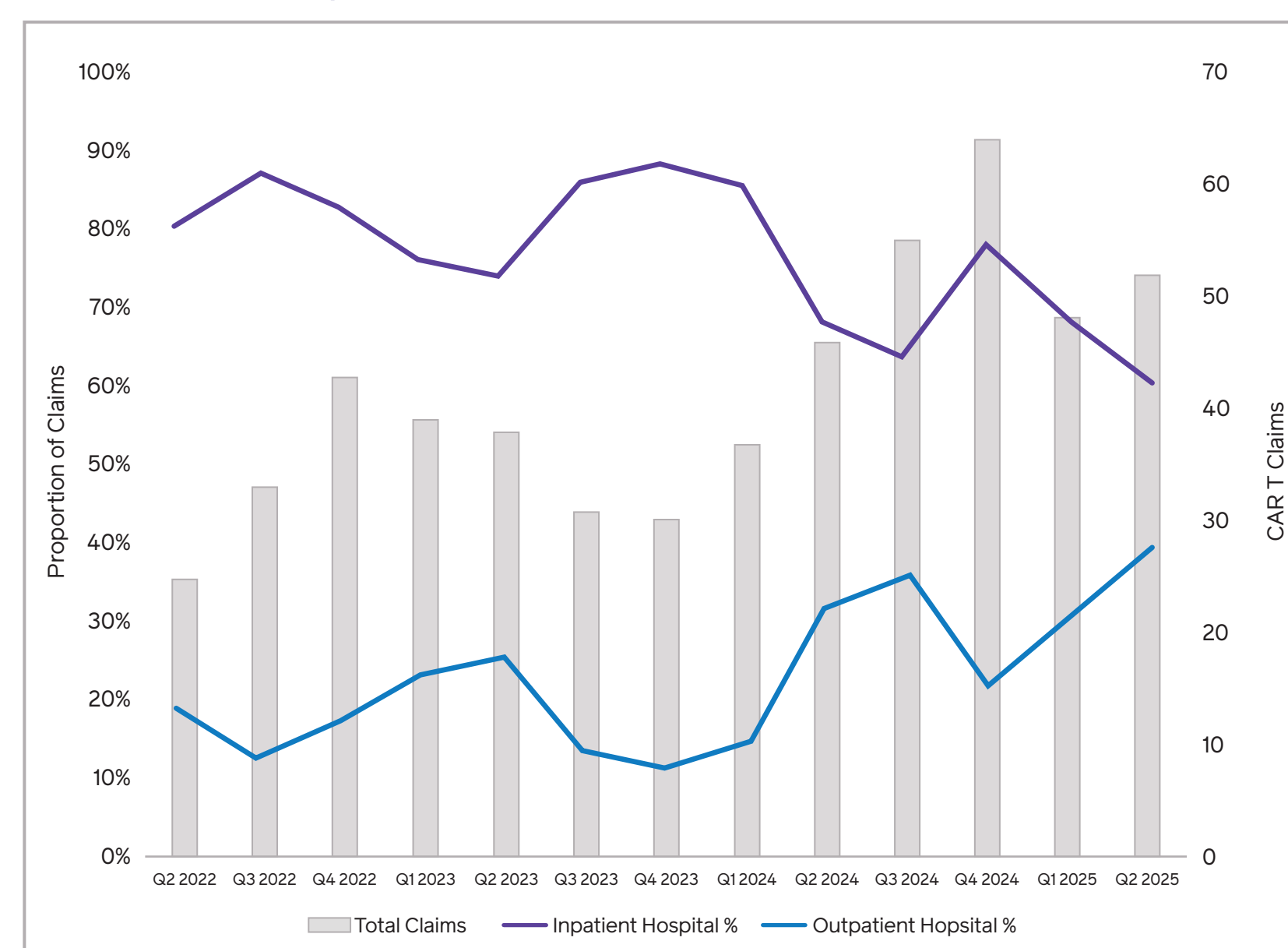
- This retrospective observational study evaluated medical claims from a commercial population of approximately 17 million covered lives from March 31, 2022, to June 30, 2025.
- Claims for CAR T and BiTE therapies were identified using product-specific codes (HCPCS, ICD-10-PCS, NDC, and GPI). All associated claim lines linked to an index therapy claim were aggregated to calculate the treatment-day cost.

Table 1
CAR T and BiTE therapies included in analysis

CAR T	BiTE
idecabtagene (Abecma)	blinatumomab (Blincyto)
obecabtagene (Aucatzyl)	glofitamab-gxhm (Columvi)
lisocabtagene (Breyanzi)	elranatamab-bcmm (Elrexfio)
ciltacabtagene (Carvykti)	epcoritamab-bysp (Epinly)
tisagenlecleucel (Kymriah)	tarlatamab-dlle (Imdelltra)
brexucabtagene (Tecartus)	tebentafusp-tebn (Kimmtrak)
axicabtagene (Yescarta)	mosunetuzumab-axgb (Lunsumio)
	linvoseltamab-gcpt (Lynsofyf)
	talquetamab-tgvs (Talvey)
	teclistamab-cqyv (Tecvayli)

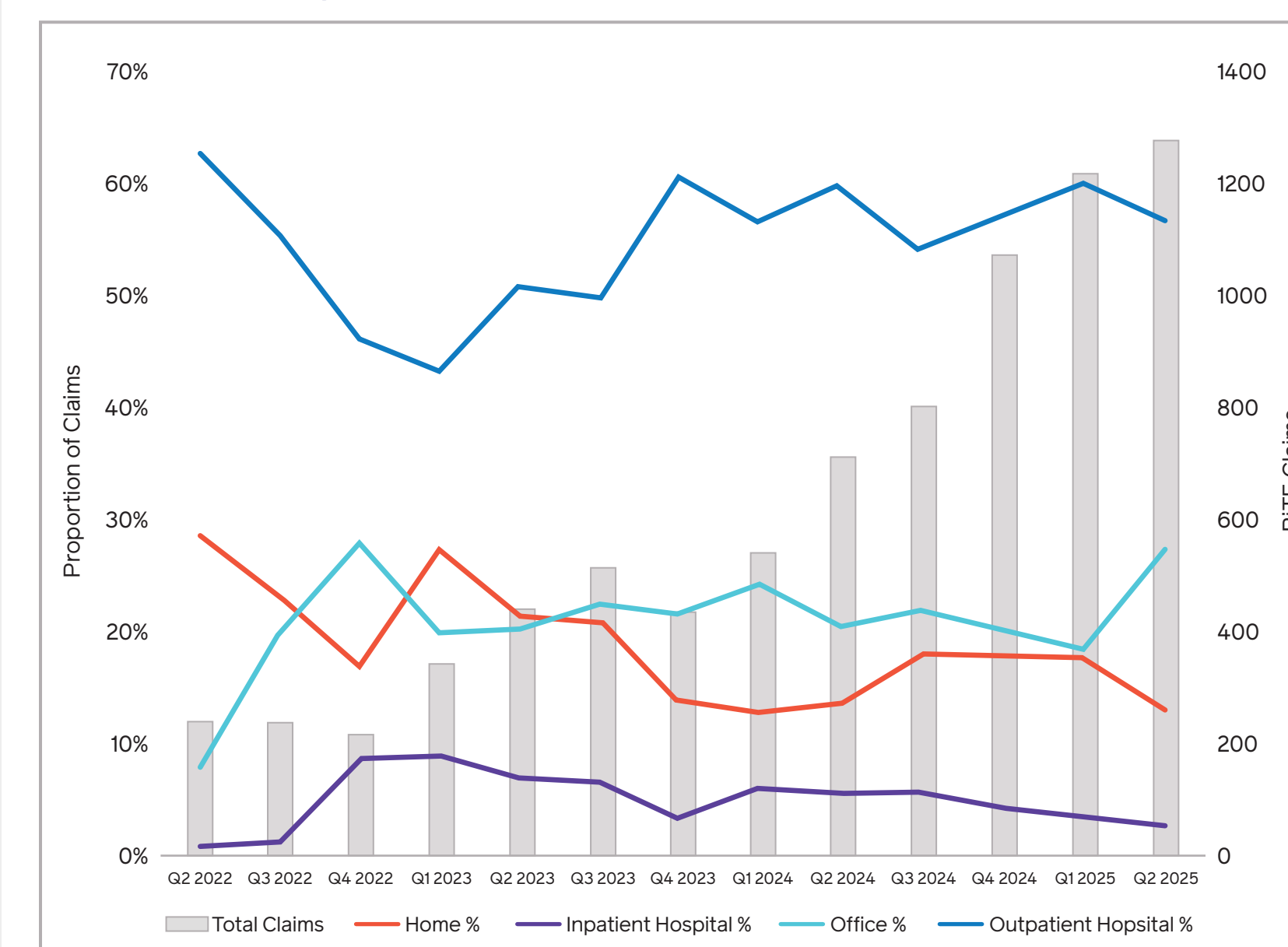
- Place of service (POS) codes and facility bill type codes were used to assign SOC. SOC categories included:
 - Inpatient hospital
 - Outpatient hospital
 - Provider office (office)
 - Home infusion (home)
- Utilization trends were assessed by calculating the number and percentage of total CAR T and BiTE claims per calendar quarter (Q) by SOC category throughout the study period.
- Total cost per treatment day was assessed using summed allowed amounts (member + plan paid) from all associated claim lines occurring on the claim as the identified CAR T or BiTE therapy.
- Descriptive statistics were used to summarize treatment-day costs.

Figure 1
CAR T Claim Trends by Site of Care



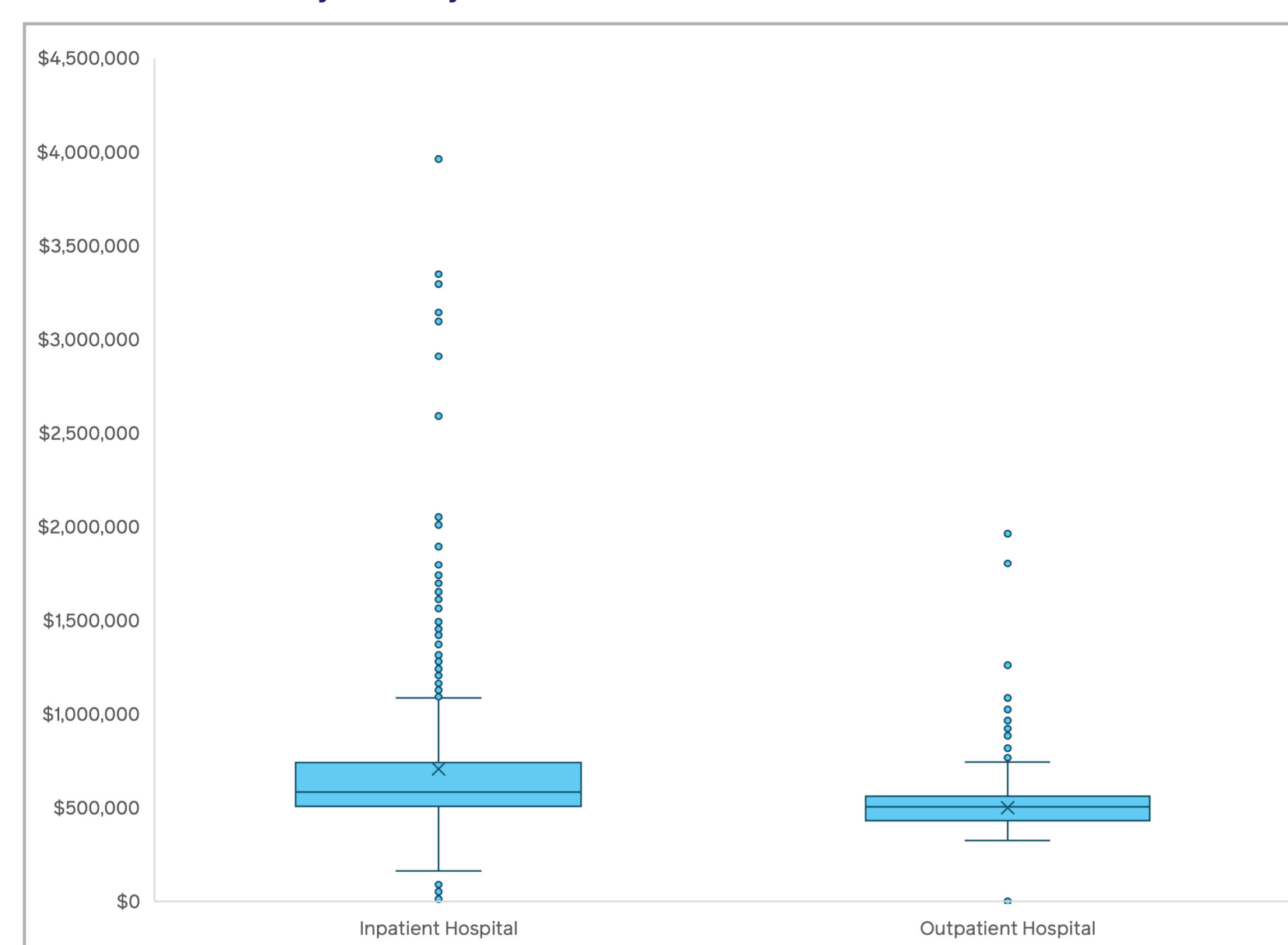
Data shown reflect quarterly CAR T claims among ~17 million commercially insured members (March 2022–June 2025). Site of care was assigned using POS and facility bill type codes. Percentages represent the proportion of total CAR T claims by site of care per quarter.

Figure 2
BiTE Claim Trends by Site of Care



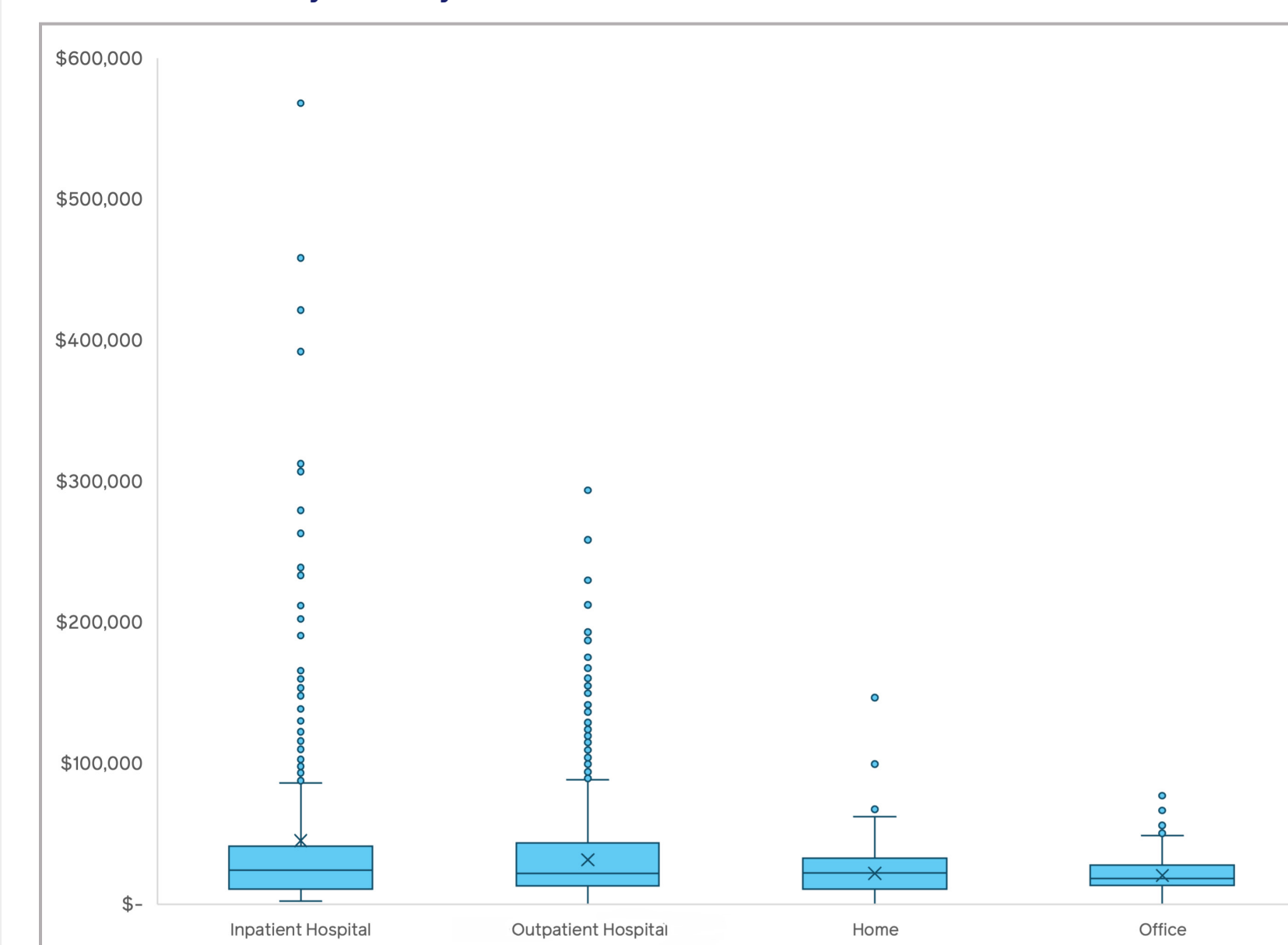
Data shown reflect quarterly BiTE claims among ~17 million commercially insured members (March 2022–June 2025). Site of care was assigned using POS and facility bill type codes. Percentages represent the proportion of total BiTE claims by site of care per quarter.

Figure 3
CAR T Treatment-Day Costs by Site of Care



Treatment-day costs represent the total allowed amount (plan + member paid) for all claims occurring on the same day as CAR T-cell administration. Costs are shown by site of care and summarized using descriptive statistics. Outlier costs are defined as values beyond 1.5x the interquartile range (IQR) from Q1 or Q3 (Tukey method).

Figure 4
BiTE Treatment-Day Costs by Site of Care



Treatment-day costs represent the total allowed amount (plan + member paid) for all claims occurring on the same day as BiTE administration. Costs are shown by site of care and summarized using descriptive statistics. Outlier costs are defined as values beyond 1.5x the interquartile range (IQR) from Q1 or Q3 (Tukey method).

Results

- A total of 541 CAR T claims and 8,061 BiTE claims were identified during the study period.
- Between Q2 2022 and Q2 2025, CAR T claim volume increased 108% (25 to 52 claims per quarter).
- The proportion of inpatient CAR T claims decreased from 81% to 61%, while hospital outpatient CAR T claims increased from 19% to 39%.
- A consistent annual increase in outpatient CAR T utilization was observed: 16% in 2022, 20% in 2023, 27% in 2024, and 35% in 2025.
- Total BiTE claim volume increased more than fivefold, rising from 238 claims in Q2 2022 to 1,279 claims in Q2 2025.
- During the study period, the proportion of hospital-based (hospital inpatient + hospital outpatient) BiTE claims declined from 63% to 60%, while office-based BiTE claims increased from 8% to 27%.
- Average treatment-day cost for CAR T was \$707,577 in the inpatient setting and \$499,831 in the outpatient hospital setting.
- For BiTE therapies, the average treatment-day cost was \$45,155 (inpatient), \$31,532 (outpatient hospital), \$20,334 (provider office), and \$21,848 (home infusion).
- Inpatient site of care demonstrated the highest variation in treatment-day costs for both CAR T and BiTE therapies.

Limitations

- Treatment-day costs were used due to variation in how inpatient drug costs are reported in claims data. Inclusion of all claim lines can incorporate additional services impacting treatment-day costs.
- An analysis was conducted at the treatment-day level, not the member or episode level, limiting interpretation of longitudinal cost or treatment duration. SOC classifications based on POS and bill type codes may be inconsistently reported and subject to misclassification.
- The study population was limited to commercially insured members, which may limit generalizability to other payer types.

Conclusions

- This study confirms a significant increase in utilization of CAR T and BiTE therapies, accompanied by a consistent shift toward lower acuity, lower-cost sites of care. While cost differences between SOC are substantial, they may be influenced in part by differences in patient health status and the intensity of services delivered on the treatment day.
- Payers should continue to monitor SOC trends to support safe, clinically appropriate, and cost-effective CAR T and BiTE therapy administration.

References

- Gajra A, Zalenski A, Sannareddy A, Jeune-Smith Y, Kapinos K, Kansagra A. Barriers to chimeric antigen receptor T-cell (CAR-T) therapies in clinical practice. *Pharmaceut Med.* 2022;36(3):163-171. doi: <https://doi.org/10.1007/s40290-022-00428-w>
- Levent A, Moseley A, Simons R, Adabra S. Barriers to CAR-T therapy adoption: comparing access in academic and community settings in the US. *Blood.* 2024;144:5107. doi: <https://doi.org/10.1182/blood-2024-211499>
- FDA eliminates risk evaluation and mitigation strategies (REMS). US Food and Drug Administration. Published 2025. Accessed February 2, 2026. <https://www.fda.gov/vaccines-blood-biologics/safety-availability-biologics/fda-eliminates-risk-evaluation-and-mitigation-strategies-rems-autologous-chimeric-antigen-receptor>
- Wu J, Ghobadi A, Maziarz R, et al. Medicare utilization and cost trends for CAR T cell therapies across settings of care in the treatment of diffuse large B-Cell lymphoma. *Adv Ther.* 2024;41(8):3232-3246. doi: <https://doi.org/10.1007/s12325-024-02917-7>
- Di M, Potnis KC, Long JB, et al. Costs of care during chimeric antigen receptor T-cell therapy in relapsed/refractory B cell lymphomas. *JNCI Cancer Spectr.* 2024;8(4). doi: <https://doi.org/10.1093/jncics/pkae059>
- McBride K, Snyder S, Serrano-Rubio D, Gitlin M. Geographic trends in chimeric antigen receptor (CAR) T-cell therapy access and utilization. ISPOR. Published 2024. Accessed February 3, 2026. <https://www.ispor.org/heor-resources/presentations-database/presentation/int2024-3900/138135>
- Atembina L, Boehmer L, Terrell K, et al. Multidisciplinary provider insights to promote adoption of bispecific antibodies to treat cancer in the community. *Blood.* 2021;138(Supplement 1):4033-4033. doi: <https://doi.org/10.1182/blood-2021-153794>