

The Cost of Innovation: Evaluating the Evolution of Willingness-to-Pay for CAR-T Therapies in Germany

K. CULLEN, PhD, MRes, I. OWENS-SMITH, MChem

RED NUCLEUS, MARKET ACCESS AND COMMERCIALIZATION SERVICES, LONDON, UK

OBJECTIVES

The launch of chimeric antigen receptor (CAR)-T cell therapies has revolutionised treatment for some patients with difficult-to-treat blood cancers. However, these single-dose therapies come at a significant cost to health systems, adding additional complexity to payer decision-making and health budget considerations. This analysis aims to understand trends in launch price and subsequent price erosion for CAR-T therapies in Germany.

METHODS

All CAR-T therapies with European marketing authorisation were identified from the EMA database, and product characteristics (indication, orphan status, posology) were collected. Date of first price in Germany, launch price, and price evolution data was extracted from the GlobalData POLI database.

RESULTS

All 6 CAR-T therapies identified are reimbursed in Germany (Table 1). All therapies, except lisocabtagene maraleucel, have orphan drug designation. Launch cost per dose ranged from €282,000 for brexucabtagene autoleucel (Sep 2022) to €420,000 for ciltacabtagene autoleucel (Feb 2023). Five therapies experienced a post-AMNOG list price reduction after 1 year, including the most recent and highest priced product at launch, ciltacabtagene autoleucel. One therapy was able to maintain price post-AMNOG, but experienced a 32.3% price drop the following year (lisocabtagene maraleucel). For all CAR-T therapies, the mean post-AMNOG price reduction was 15.9%. Considering only products with a price change, mean post-AMNOG reduction was 15.88% (min, max: 3.9%, 32.2%). Comparing launch list to current list, an average decrease of 23.6% is observed (min, max: 3.9%, 32.3%) (Tables 2&3).

TABLE 1. CAR-T THERAPIES REIMBURSED IN GERMANY

Drug	ODD	Indication	Population	1 st Price Date
Kymriah (tisagenlecleucel)	✓	! B cell ALL that is refractory, in relapse post transplant or in second or later relapse ! r/r DLBCL after ≥2 lines of systemic therapy ! r/r FL after ≥2 lines of systemic therapy	ALL: Adult & paediatric DLBCL, FL: Adult	Sep 2018
Yescarta (axicabtagene ciloleucel)	✓	! DLBCL and HGBL that relapses within 12 months from completion of, or is refractory to, first-line chemoimmunotherapy ! r/r DLBCL and PMBCL, after ≥2 lines of systemic therapy ! r/r FL after ≥3 lines of systemic therapy	Adult	Nov 2018
Abecma (idecabtagene vicleucel)	✓	! r/r multiple myeloma after ≥2 prior therapies, including an immunomodulatory agent, a proteasome inhibitor and an anti CD38 antibody and with disease progression	Adult	Jan 2022
Breyanzi (lisocabtagene maraleucel)	Withdrawn	! DLBCL, HGBCL, PMBCL and FL grade 3B, who relapsed within 12 months from completion of, or are refractory to, first-line chemoimmunotherapy	Adult	Sep 2022
Tecartus (brexucabtagene autoleucel)	✓	! r/r MCL after ≥2 lines of systemic therapy, including a BTK inhibitor ! r/r ALL	Adult	Sep 2022
Carvykti (ciltacabtagene autoleucel)	✓	! r/r multiple myeloma, after ≥1 line of therapy, including an immunomodulatory agent and a proteasome inhibitor, with demonstrated disease progression, and are refractory to lenalidomide	Adult	Feb 2023

Abbreviations: ALL: Acute Lymphoblastic Leukaemia; BTK: Bruton's Tyrosine Kinase; CD38: Cluster of Differentiation 38; DLBCL: Diffuse Large B Cell Lymphoma; FL: Follicular Lymphoma; High-Grade B-Cell Lymphoma; MCL: Mantle Cell Lymphoma; PMBCL: Primary Mediastinal Large B Cell Lymphoma; R/R: Relapsed/Refractory. Sources: EMA, GlobalData (POLI)

TABLE 2. PRICE EVOLUTION OF CAR-T THERAPIES IN GERMANY

Drug	2018	2019	2020	2021	2022	2023	2024
Kymriah (tisagenlecleucel)	€320,000	€275,000	€275,000	€265,000	€265,000	€239,000	€239,000
Yescarta (axicabtagene ciloleucel)	€327,000	€282,000	€282,000	€282,000	€282,000	€272,000	€272,000
Abecma (idecabtagene vicleucel)					€350,000	€240,000	€240,000
Breyanzi (lisocabtagene maraleucel)					€345,000	€345,000	€233,750
Tecartus (brexucabtagene autoleucel)					€282,000	€271,000	€271,000
Carvykti (ciltacabtagene autoleucel)						€420,000	€285,000
Average	€323,500	€278,500	€278,500	€273,500	€304,800	€297,833	€256,792

Source: GlobalData (POLI)

TABLE 3. POST-AMNOG PRICE REDUCTIONS OF CAR-T THERAPIES IN GERMANY

	Post-AMNOG Price Reduction
Kymriah (tisagenlecleucel)	14.1%
Yescarta (axicabtagene ciloleucel)	13.8%
Abecma (idecabtagene vicleucel)	31.4%
Breyanzi (lisocabtagene maraleucel)	0.0%
Tecartus (brexucabtagene autoleucel)	3.9%
Carvykti (ciltacabtagene autoleucel)	32.1%
Average	15.9%

Source: GlobalData (POLI)

CONCLUSION

Despite the first CAR-T therapies launching 6 years ago, in 2018, and with 6 products now available (albeit with different indications), this analysis highlights the continued willingness-to-pay for these innovative therapies in Germany. Indeed, the most recent launch, ciltacabtagene autoleucel, obtained the highest launch price to date. Although this product had a relatively high post-AMNOG price reduction of 32.1%, this puts its price inline with other CAR-T therapies. For brexucabtagene autoleucel, with the lowest launch price, parity to the most expensive CAR-T with the same indication at the time of launch was still possible. In summary, understanding evolving payer perceptions and WTP for innovative therapies is critical to inform pipeline planning and ensure continued healthcare innovation.

REFERENCES

- European Medicines Agency, online at <https://www.ema.europa.eu/en/homepage> (accessed 2024).
- GlobalData. Drug Pricing (POLI) & HTA Database, online at <https://poli.globaldata.com/PricingData/Search> (accessed 2024).