IQWiG

Drug assessment at a glance: A25-148[1]

Pembrolizumab (head and neck squamous cell carcinoma, neoadjuvant and adjuvant)

24 August 2026

[1] This is a courtesy translation of the summary provided as a service by IQWiG. For further information on the subject matter and the result of the assessment, please refer to the dossier assessment for Project A25-148. The G-BA decides on the added benefit.

Research question 1 of the benefit assessment

Population	Adult patients with resectable locally advanced head and neck squamous cell carcinoma whose tumours express PD-L1 with a CPS ≥ 1, with a high postoperative risk profile for whom cisplatin-based therapy is suitable, or with a low postoperative risk profile
Intervention	A therapy regimen consisting of ▪ neoadjuvant pembrolizumab ▪ surgery (tumour resection) ▪ followed by individualized treatment, choosing from: ▫ adjuvant pembrolizumab and chemoradiotherapy with cisplatin and ▫ adjuvant pembrolizumab and radiotherapy ▪ followed by monotherapy with pembrolizumab
Comparator	A therapy regimen consisting of ▪ surgery (tumour resection) ▪ followed by individualized treatment, choosing from: ▫ adjuvant chemoradiotherapy with cisplatin and ▫ adjuvant radiotherapy
Outcomes	At least one patient-relevant outcome

Overview of positive and negative effects – research question 1

	Size of the effects	Informative value of the effects
Mortality	↑↑	★
Morbidity	ø	–
Symptoms	ø	–
Health-related quality of life	ø	–
Side effects	↓↓↓	★
	ø No (suitable) data ↔ No advantage or disadvantage ↑ / ↓ Small advantage/disadvantage ↑↑ / ↓↓ Moderate advantage/disadvantage ↑↑↑ / ↓↓↓ Large advantage/disadvantage	– Not applicable ★ Low ★★ Moderate ★★★ High

Overall: a small advantage with low informative value

Evidence base and noteworthy aspects – research question 1

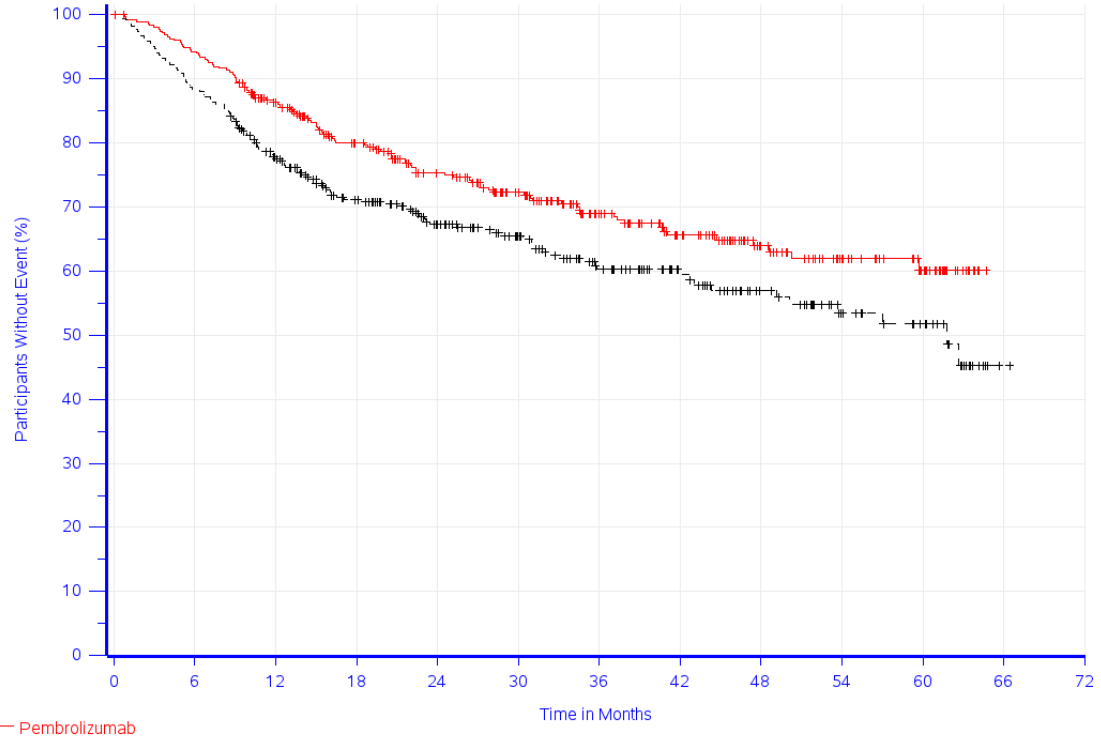
- Evidence base: KEYNOTE 689 study (ongoing, open-label RCT; relevant subpopulation: pembrolizumab arm [N = 347] versus comparator arm [N = 335])

- In the study, the definition of a high risk of post-surgery recurrence differed from the German guidelines. The transferability to the German health care context is therefore uncertain.
- Surgery and (chemo-)radiotherapy took place earlier in the comparator arm. The associated side effects occurred earlier and skewed the comparison to the disadvantage of the comparator arm.
- The timepoints of recording the patient-reported outcomes differed between the study arms, particularly in the beginning of the study. These outcomes were therefore not suitable for the benefit assessment.
- The follow-up period of this data cut was too short to show the failure of the curative treatment approach.

Key study findings – research question 1

Study Outcome category Outcome	pembrolizumab neoadjuvant + adjuvant and radiotherapy ± cisplatin		radiotherapy ± cisplatin		pembrolizumab neoadjuvant + adjuvant and radiotherapy ± cisplatin vs. radiotherapy ± cisplatin
	N	Median time to event in months [95% CI] Patients with event n (%)	N	Median time to event in months [95% CI] Patients with event n (%)	HR [95% CI]; p-value
KEYNOTE 689					
Mortality					
Overall survival	347	NA 106 (30.5)	335	61.8 [49.2; NC] 128 (38.2)	0.72 [0.56; 0.94]; 0.014
Side effects					
		Events n (%)		**Events n (%)**	**RR [95% CI]; p-value**
Immune-mediated SAEs	361	29 (8.0)	315	1 (0.3)	25.30 [3.47; 184.70]; < 0.001
Immune-mediated severe AEs	361	36 (10.0)	315	2 (0.6)	15.71 [3.81; 64.71]; < 0.001

Kaplan-Meier curves on overall survival – research question 1



Study: KEYNOTE 689 (Database Cutoff Date: 25JUL2024)
Overall Survival

Research question 2 of the benefit assessment

Population	Adult patients with resectable locally advanced head and neck squamous cell carcinoma whose tumours express PD-L1 with a CPS ≥ 1, with a high postoperative risk profile for whom cisplatin-based therapy is not suitable
Intervention	A therapy regimen consisting of ▪ neoadjuvant pembrolizumab ▪ surgery (tumour resection) ▪ followed by individualized treatment, choosing from: ▫ adjuvant pembrolizumab and chemoradiotherapy with cisplatin and ▫ adjuvant pembrolizumab and radiotherapy ▪ followed by monotherapy with pembrolizumab
Appropriate comparator therapy	A therapy regimen consisting of ▪ surgery (tumour resection) ▪ followed by adjuvant chemoradiotherapy with: ▫ mitomycin + 5-FU or ▫ carboplatin + 5-FU or ▫ docetaxel
Outcomes	At least one patient-relevant outcome

Overview of positive and negative effects – research question 2

	Size of the effects	Informative value of the effects
Mortality	∅	–
Morbidity	∅	–
Symptoms	∅	–
Health-related quality of life	∅	–
Side effects	∅	–
	∅ No (suitable) data ↔ No advantage or disadvantage ↑ / ↓ Small advantage/disadvantage ↑↑ / ↓↓ Moderate advantage/disadvantage ↑↑↑ / ↓↓↓ Large advantage/disadvantage	– Not applicable ★ Low ★★ Moderate ★★★ High

Overall: no advantage or disadvantage (no suitable data)

Evidence base and noteworthy aspects – research question 2

- Evidence base: No relevant study was identified.

References

Institut für Qualität und Wirtschaftlichkeit im Gesundheitswesen. Pembrolizumab (Plattenepithelkarzinom der Kopf-Hals-Region, neoadjuvant und adjuvant); Nutzenbewertung gemäß § 35a SGB V; Dossierbewertung [online]. 2026 [Accessed: 21.05.2026]. URL: https://doi.org/10.60584/A25-148.

Institut für Qualität und Wirtschaftlichkeit im Gesundheitswesen. Pembrolizumab (Plattenepithelkarzinom der Kopf-Hals-Region, neoadjuvant und adjuvant); Addendum zum Projekt A25-148 (Dossierbewertung) [online]. 2026 [Accessed: 21.05.2026]. URL: https://doi.org/10.60584/A26-41.

Gemeinsamer Bundesausschuss. Nutzenbewertungsverfahren zum Wirkstoff Pembrolizumab (Neues Anwendungsgebiet: Resezierbares lokal fortgeschrittenes Plattenepithelkarzinom der Kopf-Hals-Region, PD-L1-Expression ≥ 1 %, neoadjuvante und adjuvante Therapie, Kombination mit Strahlentherapie mit oder ohne begleitende Cisplatin-Therapie) [online]. 2026 [Accessed: 21.05.2026]. URL: https://www.g-ba.de/bewertungsverfahren/nutzenbewertung/1288/.

English translations for this project are published at https://www.iqwig.de/en/projects/a25-148.html and https://www.iqwig.de/en/projects/a26-41.html.

Publisher details

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Institute for Quality and Efficiency in Health Care (IQWiG)

Address

Siegburger Str. 237
50679 Köln
Germany

Phone: +49 221 35685-0
Fax: +49 221 35685-1
Email: info@iqwig.de
Internet: www.iqwig.de