Nivolumab
(NSCLC, neoadjuvant + adjuvant)

Benefit assessment according to §35a SGB V[1]

EXTRACT

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Medical and scientific advice

No advisor on medical and scientific questions was involved in the present dossier assessment.

Patient and family involvement

No patients or families were involved in the present dossier assessment.

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Part I: Benefit assessment

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[2] Table numbers start with “2” as numbering follows that of the full dossier assessment.

I List of abbreviations

Abbreviation	Meaning
ACT	appropriate comparator therapy
G-BA	Gemeinsamer Bundesausschuss (Federal Joint Committee)
IQWiG	Institut für Qualität und Wirtschaftlichkeit im Gesundheitswesen (Institute for Quality and Efficiency in Health Care)
NSCLC	non-small cell lung cancer
RCT	randomized controlled trial
SGB	Sozialgesetzbuch (Social Code Book)

I 1 Executive summary of the benefit assessment

Background

In accordance with §35a Social Code Book V, the Federal Joint Committee (G-BA) commissioned the Institute for Quality and Efficiency in Health Care (IQWiG) to assess the benefit of the drug nivolumab, in combination with platinum-based chemotherapy for neoadjuvant treatment and as subsequent monotherapy for adjuvant treatment. The assessment is based on a dossier compiled by the pharmaceutical company (hereinafter referred to as the 'company'). The dossier was sent to IQWiG on 13 June 2025.

Research question

The aim of this report is to assess the added benefit of nivolumab, in combination with platinum-based chemotherapy as neoadjuvant treatment, followed by nivolumab as monotherapy as adjuvant treatment, in comparison with the appropriate comparator therapy (ACT) in adult patients with resectable non-small cell lung cancer (NSCLC) at high risk of recurrence whose tumours have programmed death-ligand 1 (PD-L1) expression ≥ 1%.

The research question shown in Table 2 was defined in accordance with the ACT specified by the G-BA.

Table 2: Research question for the benefit assessment of nivolumab + platinum-based chemotherapy (neoadjuvant), followed by nivolumab as monotherapy (adjuvant)

Therapeutic indication	**ACT[a]**
Adult patients with resectable non-small cell lung cancer at high risk of recurrence whose tumours have PD-L1 expression ≥ 1%; neoadjuvant and adjuvant treatment	Neoadjuvant treatment[b]: pembrolizumab in combination with platinum-based therapy Adjuvant treatment: pembrolizumab
a. Presented is the ACT specified by the G-BA. b. In this therapeutic indication, the ACT was determined on the basis that a decision had been made to use neoadjuvant treatment. ACT: appropriate comparator therapy; G-BA: Federal Joint Committee; PD-L1: programmed death-ligand 1	

The assessment was conducted by means of patient-relevant outcomes on the basis of the data provided by the company in the dossier.

Randomized controlled trials (RCTs) were used to derive the added benefit.

Results

Concurring with the company, the review of the completeness did not identify any relevant studies.

Results on added benefit

Since no relevant study was available for the benefit assessment, there is no hint of an added benefit of nivolumab, in combination with platinum-based chemotherapy as neoadjuvant treatment, followed by nivolumab as monotherapy as adjuvant treatment, in comparison with the ACT in adult patients with resectable NSCLC at high risk of recurrence whose tumours have PD-L1 expression ≥ 1%. An added benefit is therefore not proven.

Probability and extent of added benefit, patient groups with therapeutically important added benefit[3]

Table 3 presents a summary of the probability and extent of the added benefit of nivolumab, in combination with platinum-based chemotherapy as neoadjuvant treatment and as subsequent monotherapy for adjuvant treatment.

Table 3: Nivolumab + platinum-based chemotherapy (neoadjuvant) followed by nivolumab as monotherapy (adjuvant) – probability and extent of added benefit

Therapeutic indication	**ACT[a]**	**Probability and extent of added benefit**
Adult patients with resectable non-small cell lung cancer at high risk of recurrence whose tumours have PD-L1 expression ≥ 1%; neoadjuvant and adjuvant treatment	Neoadjuvant treatment[b]: pembrolizumab in combination with platinum-based therapy Adjuvant treatment: pembrolizumab	Added benefit not proven
a. Presented is the ACT specified by the G-BA. b. In this therapeutic indication, the ACT was determined on the basis that a decision had been made to use neoadjuvant treatment. ACT: appropriate comparator therapy; G-BA: Federal Joint Committee; PD-L1: programmed death-ligand 1		

The G-BA decides on the added benefit.

[3] On the basis of the scientific data analysed, IQWiG draws conclusions on the (added) benefit or harm of an intervention for each patient-relevant outcome. Depending on the number of studies analysed, the certainty of their results, and the direction and statistical significance of treatment effects, conclusions on the probability of (added) benefit or harm are graded into 4 categories: (1) “proof”, (2) “indication”, (3) “hint”, or (4) none of the first 3 categories applies (i.e., no data available or conclusions 1 to 3 cannot be drawn from the available data). The extent of added benefit or harm is graded into 3 categories: (1) major, (2) considerable, (3) minor (in addition, 3 further categories may apply: non-quantifiable extent of added benefit, added benefit not proven, or less benefit). For further details see [1,2].

I 2 Research question

The aim of this report is to assess the added benefit of nivolumab, in combination with platinum-based chemotherapy as neoadjuvant treatment, followed by nivolumab as monotherapy as adjuvant treatment, in comparison with the appropriate comparator therapy (ACT) in adult patients with resectable non-small cell lung cancer (NSCLC) at high risk of recurrence whose tumours have programmed death-ligand 1 (PD-L1) expression ≥ 1%.

The research question shown in Table 4 was defined in accordance with the ACT specified by the G-BA.

Table 4: Research question for the benefit assessment of nivolumab + platinum-based chemotherapy (neoadjuvant), followed by nivolumab as monotherapy (adjuvant)

Therapeutic indication	**ACT[a]**
Adult patients with resectable non-small cell lung cancer at high risk of recurrence whose tumours have PD-L1 expression ≥ 1%; neoadjuvant and adjuvant treatment	Neoadjuvant treatment[b]: pembrolizumab in combination with platinum-based therapy Adjuvant treatment: pembrolizumab
a. Presented is the ACT specified by the G-BA. b. In this therapeutic indication, the ACT was determined on the basis that a decision had been made to use neoadjuvant treatment. ACT: appropriate comparator therapy; G-BA: Federal Joint Committee; PD-L1: programmed death-ligand 1	

The company followed the G-BA's specification of the ACT.

The assessment was conducted by means of patient-relevant outcomes on the basis of the data provided by the company in the dossier. Randomized controlled trials (RCTs) were used to derive the added benefit. This concurred with the company's inclusion criteria.

I 3 Information retrieval and study pool

The study pool for the assessment was compiled on the basis of the following information:

Sources used by the company in the dossier:

- Study list on nivolumab (status: 15 April 2025)
- Bibliographical literature search on nivolumab (last search on 30 April 2025)
- Search of trial registries / trial results databases for studies on nivolumab (last search on 15 April 2025)
- Search on the G-BA website for nivolumab (last search on 30 April 2025)

To check the completeness of the study pool:

- Search of trial registries for studies on nivolumab (last search on 30 June 2025); for search strategies, see I Appendix A of the full dossier assessment

Concurring with the company, this review did not identify any relevant studies.

In Module 3 ZA, the company presented results of the pivotal study CA209-77T as supplementary information. CA209-77T [3] is a double-blind RCT for the assessment of nivolumab in combination with platinum-based chemotherapy (neoadjuvant) and then as monotherapy (adjuvant) versus placebo in combination with platinum-based chemotherapy (neoadjuvant) and then placebo monotherapy (adjuvant). The study included adult patients with resectable stage IIA (> 4 cm) to IIIB (N2 only) NSCLC as per the American Joint Committee on Cancer (AJCC) / Union for International Cancer Control (UICC) Cancer Staging Manual 8th Edition [4], without prior systemic treatment. However, the company did not use this study to derive the added benefit.

The company’s approach was appropriate. The treatment in the comparator arm did not concur with the ACT, so that there were no suitable data available to compare nivolumab, in combination with platinum-based chemotherapy for neoadjuvant treatment and as subsequent monotherapy for adjuvant treatment, versus the comparator therapy specified by the G-BA.

I 4 Results on added benefit

No suitable data were available to assess the added benefit of nivolumab, in combination with platinum-based chemotherapy as neoadjuvant treatment, followed by nivolumab as monotherapy as adjuvant treatment, in comparison with the ACT in adult patients with resectable NSCLC at high risk of recurrence whose tumours have PD-L1 expression ≥ 1%. There is no hint of an added benefit of nivolumab in comparison with the ACT; an added benefit is therefore not proven.

I 5 Probability and extent of added benefit

The result of the assessment of the added benefit of nivolumab, in combination with platinum-based chemotherapy as neoadjuvant treatment and as subsequent monotherapy for adjuvant treatment, in comparison with the ACT is summarized in Table 5.

Table 5: Nivolumab + platinum-based chemotherapy (neoadjuvant) followed by nivolumab as monotherapy (adjuvant) – probability and extent of added benefit

Therapeutic indication	**ACT[a]**	**Probability and extent of added benefit**
Adult patients with resectable non-small cell lung cancer at high risk of recurrence whose tumours have PD-L1 expression ≥ 1%; neoadjuvant and adjuvant treatment	Neoadjuvant treatment[b]: pembrolizumab in combination with platinum-based therapy Adjuvant treatment: pembrolizumab	Added benefit not proven
a. Presented is the ACT specified by the G-BA. b. In this therapeutic indication, the ACT was determined on the basis that a decision had been made to use neoadjuvant treatment. ACT: appropriate comparator therapy; G-BA: Federal Joint Committee; PD-L1: programmed death-ligand 1		

The assessment described above concurs with that by the company.

The G-BA decides on the added benefit.

I 6 References for English extract

Please see full dossier assessment for full reference list.

The reference list contains citations provided by the company in which bibliographical information may be missing.

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The full report (German version) is published under https://www.iqwig.de/en/projects/a25-81.html.