

Pembrolizumab (new therapeutic indication: non-small cell lung carcinoma, high risk of recurrence, neoadjuvant and adjuvant treatment, monotherapy or combination with platinum-based chemotherapy)

Resolution of: 17 October 2024
Entry into force on: 17 October 2024
Federal Gazette, BAnz AT 02. 12. 2024 B2

valid until: unlimited

New therapeutic indication (according to the marketing authorisation of 25 March 2024):

KEYTRUDA, in combination with platinum-containing chemotherapy as neoadjuvant treatment, and then continued as monotherapy as adjuvant treatment, is indicated for the treatment of resectable non-small cell lung carcinoma at high risk of recurrence in adults.

Therapeutic indication of the resolution (resolution of 17 October 2024):

See new therapeutic indication according to marketing authorisation.

1. Additional benefit of the medicinal product in relation to the appropriate comparator therapy

- a) Adults with resectable non-small cell lung carcinoma with tumour cell PD-L1 expression \geq 1% at high risk of recurrence; neoadjuvant and adjuvant treatment

Appropriate comparator therapy:

Neoadjuvant treatment:

Nivolumab in combination with a platinum-based therapy

Followed by adjuvant treatment:

best supportive care

Extent and probability of the additional benefit of pembrolizumab in combination with platinum-based chemotherapy for neoadjuvant treatment followed by pembrolizumab as monotherapy for adjuvant treatment compared with the appropriate comparator therapy:

An additional benefit is not proven.

- b) Adults with resectable non-small cell lung carcinoma with tumour cell PD-L1 expression $<$ 1% at high risk of recurrence; neoadjuvant and adjuvant treatment

Appropriate comparator therapy:

Patient-individual therapy with selection of:

- preoperative (neoadjuvant) systemic chemotherapy with selection of

- cisplatin in combination with a third-generation cytostatic (vinorelbine or gemcitabine or docetaxel or paclitaxel or pemetrexed)
and

- carboplatin in combination with a third-generation cytostatic (vinorelbine or gemcitabine or docetaxel or paclitaxel or pemetrexed) and
- simultaneous radiochemotherapy with platinum-based (cisplatin or carboplatin) combination chemotherapy,

taking into account the tumour stage, the tumour histology, the presence of a Pancoast tumour and the feasibility of an R0 resection, as well as the prerequisites for the use of carboplatin.

Followed by adjuvant treatment:

best supportive care

Extent and probability of the additional benefit of pembrolizumab in combination with platinum-based chemotherapy for neoadjuvant treatment followed by pembrolizumab as monotherapy for adjuvant treatment compared with the appropriate comparator therapy:

An additional benefit is not proven.

Study results according to endpoints:¹

- a) Adults with resectable non-small cell lung carcinoma with tumour cell PD-L1 expression \geq 1% at high risk of recurrence; neoadjuvant and adjuvant treatment

An additional benefit is not proven.

Summary of results for relevant clinical endpoints

| Endpoint category | Direction of effect/ risk of bias | Summary |
|--|--------------------------------------|-------------------------------|
| Mortality | n.a. | There are no assessable data. |
| Morbidity | n.a. | There are no assessable data. |
| Health-related quality of life | n.a. | There are no assessable data. |
| Side effects | n.a. | There are no assessable data. |
| Explanations: ↑: statistically significant and relevant positive effect with low/unclear reliability of data ↓: statistically significant and relevant negative effect with low/unclear reliability of data ↑↑: statistically significant and relevant positive effect with high reliability of data ↓↓: statistically significant and relevant negative effect with high reliability of data ↔: no statistically significant or relevant difference ∅: No data available. n.a.: not assessable | | |

¹ Data from the dossier assessment of the IQWiG (A24-46) and from the addendum (A24-93), unless otherwise indicated.

b) Adults with resectable non-small cell lung carcinoma with tumour cell PD-L1 expression < 1% at high risk of recurrence; neoadjuvant and adjuvant treatment

An additional benefit is not proven.

Summary of results for relevant clinical endpoints

| Endpoint category | Direction of effect/ risk of bias | Summary |
|--|--------------------------------------|--|
| Mortality | ↔ | No relevant difference for the benefit assessment. |
| Morbidity | ↔ | No relevant difference for the benefit assessment. |
| Health-related quality of life | n.a. | There are no assessable data. |
| Side effects | ↔ | No relevant difference for the benefit assessment. In detail, disadvantages in specific AEs. |
| Explanations: ↑: statistically significant and relevant positive effect with low/unclear reliability of data ↓: statistically significant and relevant negative effect with low/unclear reliability of data ↑↑: statistically significant and relevant positive effect with high reliability of data ↓↓: statistically significant and relevant negative effect with high reliability of data ↔: no statistically significant or relevant difference ∅: No data available. n.a.: not assessable | | |

KEYNOTE 671 study: neoadjuvant phase: Pembrolizumab + platinum-based chemotherapy* versus platinum-based chemotherapy*; adjuvant phase: pembrolizumab (monotherapy) versus placebo

[* cisplatin + gemcitabine (for squamous histology) or cisplatin + pemetrexed (for non-squamous histology)].

Relevant sub-population: Patients with resectable NSCLC at a high risk of recurrence and tumour cell PD-L1 expression < 1%.

Mortality

| Endpoint | Pembrolizumab + platinum-based chemotherapy ^a (neoadjuvant) + Pembrolizumab (adjuvant) | | Platinum-based chemotherapy ^a (neoadjuvant) + Placebo (adjuvant) | | Intervention vs control |
|-------------------------|---|---|---|---|---|
| | N | Median survival time in months [95% CI] <i>Patients with event n (%)</i> | N | Median survival time in months [95% CI] <i>Patients with event n (%)</i> | Hazard ratio [95% CI] p value ^b |
| Overall survival | | | | | |
| | 138 | n.r. [41.4; n.c.] 52 (37.7) ^c | 151 | 47.5 [36.9; 53.7] 61 (40.4) ^c | 0.91 [0.63; 1.32] 0.618 |

Morbidity

| Endpoint | Pembrolizumab + platinum-based chemotherapy ^a (neoadjuvant) + Pembrolizumab (adjuvant) | | Platinum-based chemotherapy ^a (neoadjuvant) + Placebo (adjuvant) | | Intervention vs control |
|--|---|---|---|---|---|
| | N | Median time to event in months [95% CI] <i>Patients with event n (%)</i> | N | Median time to event in months [95% CI] <i>Patients with event n (%)</i> | Hazard ratio [95% CI] p value ^b |
| Failure of the curative approach (event-free survival, EFS)^d | | | | | |
| | 138 | 13.1 [8.3; 26.3] 85 (61.6) | 151 | 12.8 [9.4; 17.9] 107 (70.9) | 0.81 [0.61; 1.08] 0.150 RR [95% CI] p value 0.87 [0.74; 1.03] 0.100 |
| Death | 138 | – 18 (13.0) | 151 | – 13 (8.6) | – ^e |

| | | | | | |
|---|-----|----------------|-----|----------------|----------------|
| Local progression that prevents the planned surgery | 138 | – 0 (0) | 151 | – 1 (0.7) | – ^e |
| No R0 surgery | 138 | – 7 (5.1) | 151 | – 16 (10.6) | – ^e |
| No surgery ^f | 138 | – 17 (12.3) | 151 | – 12 (7.9) | – ^e |
| Disease progression according to RECIST 1.1 | 138 | – 6 (4.3) | 151 | – 6 (4.0) | – ^e |
| Recurrence | 138 | – 35 (25.4) | 151 | – 49 (32.5) | – ^e |
| Unresectable | 138 | – 2 (1.4) | 151 | – 10 (6.6) | – ^e |
| Symptomatology (EORTC QLQ-C30) | | | | | |
| No suitable data available. | | | | | |
| Symptomatology (EORTC QLQ-LC13) | | | | | |
| No suitable data available. | | | | | |
| Health status (EQ-5D VAS) | | | | | |
| No suitable data available. | | | | | |

Health-related quality of life

| Endpoint | Pembrolizumab + platinum-based chemotherapy ^a (neoadjuvant) + Pembrolizumab (adjuvant) | | Platinum-based chemotherapy ^a (neoadjuvant) + Placebo (adjuvant) | | Intervention vs control |
|-----------------------------|---|---|---|---|---|
| | N | Median time to event in months [95% CI] <i>Patients with event n (%)</i> | N | Median time to event in months [95% CI] <i>Patients with event n (%)</i> | Hazard ratio [95% CI] p value ^b |
| EORTC QLQ-C30 | | | | | |
| No suitable data available. | | | | | |

Side effects

| Endpoint | Pembrolizumab + platinum-based chemotherapy ^a (neoadjuvant) + Pembrolizumab (adjuvant) | | Platinum-based chemotherapy ^a (neoadjuvant) + Placebo (adjuvant) | | Intervention vs control |
|--|---|---------------------------|---|---------------------------|---|
| | N | Patients with event n (%) | N | Patients with event n (%) | Relative risk [95% CI] ^g p value ^h |
| Total adverse events (presented additionally) | | | | | |
| | 138 | 137 (99.3) | 151 | 148 (98.0) | – |
| Serious adverse events (SAE) | | | | | |
| | 138 | 58 (42.0) | 151 | 48 (31.8) | 1.32 [0.97; 1.79] 0.074 |
| Severe adverse events (CTCAE grade ≥ 3) | | | | | |
| | 138 | 89 (64.5) | 151 | 87 (57.6) | 1.12 [0.93; 1.35] 0.256 |
| Therapy discontinuation due to adverse events | | | | | |
| | 138 | 37 (26.8) | 151 | 26 (17.2) | 1.56 [0.998; 2.43] 0.0505 |
| Specific adverse events | | | | | |
| Immune-mediated SAEs (PT collection) ⁱ | | | | | |
| | 138 | 9 (6.5) | 151 | 2 (1.3) | 4.92 [1.08; 22.39] 0.022 |
| Immune-mediated severe AEs (PT collection; CTCAE grade ≥ 3) ⁱ | | | | | |
| | 138 | 8 (5.8) | 151 | 3 (2.0) | 2.92 [0.79; 10.78] 0.096 |
| Oedema, peripheral (PT; AE) | | | | | |
| | 138 | 19 (13.8) | 151 | 7 (4.6) | 2.97 [1.29; 6.85] 0.007 |
| General disorders and administration site conditions (SOC, SAE) | | | | | |
| | 138 | 11 (8.0) | 151 | 2 (1.3) | 6.02 [1.36; 26.67] 0.007 |

- a. Cisplatin + gemcitabine (for squamous histology) or cisplatin + pemetrexed (for non-squamous histology)
- b. Effect, CI and p value: Cox proportional hazards model; it is unclear whether stratification was also used here as described in Module 4 of the pharmaceutical company (stratification factors: tumour stage [II vs III], PD-L1 status [TPS < 50% vs TPS ≥ 50%], histology [squamous vs non-squamous] and region [East Asia vs non-East Asia], with pre-specified summary [depending on endpoint, see Module 4 of the pharmaceutical company] of manifestations due to a small number of events); p value: Wald test
- c. This includes 1 patient in each one of the two arms who had withdrawn consent before death; it is unclear why these two patients were included in the evaluation.
- d. Operationalised via event-free survival. Includes the events: radiological disease progression according to RECIST 1.1 that prevents planned surgery; local progression (primary tumour or regional lymph nodes) that prevents planned surgery; no surgery (for patients who moved to the adjuvant phase without surgery); unresectable tumour; not disease-free after surgery (patients with R1 or R2 resection); local recurrence or distant recurrence (for patients who are disease-free after surgery [R0 resection]); death from any cause.
- e. The effect estimations for the individual components are not shown since only the qualifying events for the EFS are specified for the individual components.
- f. Reasons for not having a surgery are: Physician's decision, adverse event, withdrawal of consent or refusal by the patient, disease progression according to RECIST 1.1, clinical progression and new cancer therapy not included in the study
- g. Calculation of RR and CI (asymptotic) by IQWiG
- h. IQWiG calculation (unconditional exact test, CSZ method²)
- i. Illustrated in Module 4 A using a list of predefined PTs. The same definition is assumed for the subsequently submitted documents.

Abbreviations used:

CTCAE = Common Terminology Criteria for Adverse Events; EFS = event-free survival; EORTC QLQ-C30 = European Organisation for Research and Treatment of Cancer Quality of Life Questionnaire – Core 30; EORTC QLQ-LC13 = European Organisation for Research and Treatment of Cancer Quality of Life Questionnaire – Lung Cancer 13; EQ-5D = European Quality of Life-5 Dimensions; HR = hazard ratio; CI = confidence interval; N = number of evaluated patients; n = number of patients with (at least one) event; n.c. = not calculable; n.r. = not reached; PD-L1 = Programmed Death-Ligand-1; PT = preferred term; RECIST = Response Evaluation Criteria In Solid Tumours; RR = relative risk; SOC = system organ class; SAE = serious adverse event; TPS = Tumour Proportion Score; AE = adverse event; VAS = visual analogue scale

2. Number of patients or demarcation of patient groups eligible for treatment

- a) Adults with resectable non-small cell lung carcinoma with tumour cell PD-L1 expression ≥ 1% at high risk of recurrence; neoadjuvant and adjuvant treatment

Approx. 3,240 to 3,680 patients

- b) Adults with resectable non-small cell lung carcinoma with tumour cell PD-L1 expression < 1% at high risk of recurrence; neoadjuvant and adjuvant treatment

Approx. 1,850 to 2,100 patients

² Martín Andrés A, Silva Mato A. Choosing the optimal unconditioned test for comparing two independent proportions. *Computat Stat Data Anal* 1994; 17(5): 555-574. [https://doi.org/10.1016/0167-9473\(94\)90148-1](https://doi.org/10.1016/0167-9473(94)90148-1).

3. Requirements for a quality-assured application

The requirements in the product information are to be taken into account. The European Medicines Agency (EMA) provides the contents of the product information (summary of product characteristics, SmPC) for Keytruda (active ingredient: pembrolizumab) at the following publicly accessible link (last access: 8 October 2024):

https://www.ema.europa.eu/en/documents/product-information/keytruda-epar-product-information_en.pdf

Treatment with pembrolizumab should only be initiated and monitored by specialists in internal medicine, haematology and oncology who are experienced in the treatment of patients with non-small cell lung carcinoma, as well as specialists in internal medicine and pulmonology or specialists in pulmonary medicine and other doctors from specialist groups participating in the Oncology Agreement.

In accordance with the EMA requirements regarding additional risk minimisation measures, the pharmaceutical company must provide training material that contains information for medical professionals and patients. The training material contains, in particular, instructions on the management of immune-mediated side effects potentially occurring with pembrolizumab as well as on infusion-related reactions.

4. Treatment costs

Annual treatment costs:

- a) Adults with resectable non-small cell lung carcinoma with tumour cell PD-L1 expression \geq 1% at high risk of recurrence; neoadjuvant and adjuvant treatment

| Designation of the therapy | Annual treatment costs/ patient |
|---|---------------------------------|
| Medicinal product to be assessed: Pembrolizumab + platinum-based chemotherapy (neoadjuvant treatment) followed by pembrolizumab (monotherapy) (adjuvant treatment) | |
| Neoadjuvant treatment: | |
| Pembrolizumab + platinum-based chemotherapy | |
| Pembrolizumab + cisplatin + gemcitabine | |
| Pembrolizumab | € 20,701.60 |
| Cisplatin | € 456.12 |
| Gemcitabine | € 1,435.68 |
| Total | € 22,593.40 |
| Additionally required SHI services | € 129.45 - € 134.57 |
| Pembrolizumab + cisplatin + pemetrexed | |
| Pembrolizumab | € 20,701.60 |
| Cisplatin | € 456.12 |

| Designation of the therapy | Annual treatment costs/ patient |
|---|-----------------------------------|
| Pemetrexed | € 4,313.76 |
| Total | € 25,471.48 |
| Additionally required SHI services | € 188.98 - € 208.56 |
| Adjuvant treatment: | |
| Pembrolizumab (monotherapy) | |
| Pembrolizumab | € 67,280.20 - € 72,455.60 |
| Best supportive care | Different from patient to patient |
| Appropriate comparator therapy: | |
| Patient population a) | |
| Neoadjuvant treatment: | |
| Nivolumab + platinum-based chemotherapy | |
| Nivolumab + carboplatin + paclitaxel | |
| Nivolumab | € 13,139.19 |
| Carboplatin | € 1,088.28 - € 1,295.70 |
| Paclitaxel | € 2,867.07 - € 3,210.09 |
| Total | € 17,094.54 - € 17,644.98 |
| Additionally required SHI services | € 81.22 |
| Nivolumab + cisplatin + pemetrexed | |
| Nivolumab | € 13,139.19 |
| Cisplatin | € 342.09 |
| Pemetrexed | € 3,235.32 |
| Total | € 16,716.60 |
| Additionally required SHI services | € 155.02 - € 184.41 |
| Nivolumab + cisplatin + gemcitabine | |
| Nivolumab | € 13,139.19 |
| Cisplatin | € 342.09 |
| Gemcitabine | € 1,076.76 - € 1,389.00 |
| Total | € 14,558.04 - € 14,870.28 |
| Additionally required SHI services | € 114.52 - € 129.45 |
| Adjuvant treatment: | |
| best supportive care | Different from patient to patient |

Costs after deduction of statutory rebates (LAUER-TAXE®) as last revised: 15 September 2024)

Other SHI services:

| Designation of the therapy | Type of service | Costs/ unit | Number/ cycle | Number/ patient/ year | Costs/ patient/ year |
|---|---|-------------|---------------|-----------------------|----------------------|
| Medicinal product to be assessed: Pembrolizumab + platinum-based chemotherapy (neoadjuvant treatment) followed by pembrolizumab (monotherapy) (adjuvant treatment) | | | | | |
| Neoadjuvant treatment: | | | | | |
| Pembrolizumab + platinum-based chemotherapy | | | | | |
| Pembrolizumab + cisplatin + gemcitabine | | | | | |
| Pembrolizumab | Surcharge for the preparation of a parenteral solution containing monoclonal antibodies | € 100 | 1 | 2 - 4 | € 200 - € 400 |
| Cisplatin | Surcharge for production of a parenteral preparation containing cytostatic agents | € 100 | 1 | 4 | € 400 |
| Gemcitabine | Surcharge for production of a parenteral preparation containing cytostatic agents | € 100 | 1 | 8 | € 800 |
| Pembrolizumab + cisplatin + pemetrexed | | | | | |
| Pembrolizumab | Surcharge for the preparation of a parenteral solution containing monoclonal antibodies | € 100 | 1 | 2 - 4 | € 200 - € 400 |
| Cisplatin | Surcharge for production of a parenteral preparation | € 100 | 1 | 4 | € 400 |

| Designation of the therapy | Type of service | Costs/ unit | Number/ cycle | Number/ patient/ year | Costs/ patient/ year |
|---|---|-------------|---------------|-----------------------|----------------------|
| | containing cytostatic agents | | | | |
| Pemetrexed | Surcharge for production of a parenteral preparation containing cytostatic agents | € 100 | 1 | 4 | € 400 |
| Adjuvant treatment: | | | | | |
| Pembrolizumab (monotherapy) | | | | | |
| Pembrolizumab | Surcharge for the preparation of a parenteral solution containing monoclonal antibodies | € 100 | 1 | 7 - 13 | € 700 - € 1,300 |
| Appropriate comparator therapy: | | | | | |
| Patient population a) | | | | | |
| Neoadjuvant treatment: | | | | | |
| Nivolumab + platinum-based chemotherapy | | | | | |
| Nivolumab + paclitaxel + carboplatin | | | | | |
| Nivolumab | Surcharge for the preparation of a parenteral solution containing monoclonal antibodies | € 100 | 1 | 3 | € 300 |
| Carboplatin | Surcharge for production of a parenteral preparation containing cytostatic agents | € 100 | 1 | 3 | € 300 |
| Paclitaxel | Surcharge for production of a | € 100 | 1 | 3 | € 300 |

| Designation of the therapy | Type of service | Costs/ unit | Number/ cycle | Number/ patient/ year | Costs/ patient/ year |
|-------------------------------------|---|-------------|---------------|-----------------------|----------------------|
| | parenteral preparation containing cytostatic agents | | | | |
| Nivolumab + cisplatin + pemetrexed | | | | | |
| Nivolumab | Surcharge for the preparation of a parenteral solution containing monoclonal antibodies | € 100 | 1 | 3 | € 300 |
| Cisplatin | Surcharge for production of a parenteral preparation containing cytostatic agents | € 100 | 1 | 3 | € 300 |
| Pemetrexed | Surcharge for production of a parenteral preparation containing cytostatic agents | € 100 | 1 | 3 | € 300 |
| Nivolumab + cisplatin + gemcitabine | | | | | |
| Nivolumab | Surcharge for the preparation of a parenteral solution containing monoclonal antibodies | € 100 | 1 | 3 | € 300 |
| Cisplatin | Surcharge for production of a parenteral preparation containing cytostatic agents | € 100 | 1 | 3 | € 300 |
| Gemcitabine | Surcharge for production of a parenteral preparation | € 100 | 2 | 6 | € 600 |

| Designation of the therapy | Type of service | Costs/ unit | Number/ cycle | Number/ patient/ year | Costs/ patient/ year |
|----------------------------|------------------------------|-------------|---------------|-----------------------|----------------------|
| | containing cytostatic agents | | | | |

b) Adults with resectable non-small cell lung carcinoma with tumour cell PD-L1 expression < 1% at high risk of recurrence; neoadjuvant and adjuvant treatment

| Designation of the therapy | Annual treatment costs/ patient |
|---|-----------------------------------|
| Medicinal product to be assessed: Pembrolizumab + platinum-based chemotherapy (neoadjuvant treatment) followed by pembrolizumab (monotherapy) (adjuvant treatment) | |
| Neoadjuvant treatment: | |
| Pembrolizumab + platinum-based chemotherapy | |
| Pembrolizumab + cisplatin + gemcitabine | |
| Pembrolizumab | € 20,701.60 |
| Cisplatin | € 456.12 |
| Gemcitabine | € 1,435.68 |
| Total | € 22,593.40 |
| Pembrolizumab + cisplatin + pemetrexed | |
| Pembrolizumab | € 20,701.60 |
| Cisplatin | € 456.12 |
| Pemetrexed | € 4,313.76 |
| Total | € 25,471.48 |
| Adjuvant treatment: | |
| Pembrolizumab (monotherapy) | |
| Pembrolizumab | € 67,280.20 - € 72,455.60 |
| Best supportive care | Different from patient to patient |
| Appropriate comparator therapy: | |
| Patient population b) | |
| Neoadjuvant treatment: | |
| Patient-individual therapy with selection of preoperative (neoadjuvant) systemic chemotherapy with selection of | |
| Cisplatin + vinorelbine | |
| Cisplatin | € 390.84 |
| Vinorelbine | € 1,077.12 |
| Total | € 1,467.96 |

| Designation of the therapy | Annual treatment costs/ patient |
|----------------------------|---------------------------------|
| Cisplatin + paclitaxel | |
| Cisplatin | € 210.82 |
| Paclitaxel | € 1,911.38 |
| Total | € 2,122.20 |
| Cisplatin + gemcitabine | |
| Cisplatin | € 342.09 - € 390.84 |
| Gemcitabine | € 1,389.00 |
| Total | € 1,731.09 - € 1,779.84 |
| Cisplatin + docetaxel | |
| Cisplatin | € 390.84 |
| Docetaxel | € 1,469.52 |
| Total | € 1,860.36 |
| Cisplatin + pemetrexed | |
| Cisplatin | € 342.09 |
| Pemetrexed | € 3,235.32 |
| Total | € 3,577.41 |
| Carboplatin + vinorelbine | |
| Carboplatin | Not calculable |
| Vinorelbine | Not calculable |
| Total | Not calculable |
| Carboplatin + paclitaxel | |
| Carboplatin | € 1,088.28 |
| Paclitaxel | € 2,867.07 |
| Total | € 3,955.35 |
| Carboplatin + gemcitabine | |
| Carboplatin | € 1,182.93 |
| Gemcitabine | € 1,076.76 |
| Total | € 2,259.69 |
| Carboplatin + docetaxel | |
| Carboplatin | € 1,295.70 |
| Docetaxel | € 1,469.52 |
| Total | € 2,765.22 |
| Carboplatin + pemetrexed | |
| Carboplatin | € 1,727.60 |
| Pemetrexed | € 4,313.76 |

| Designation of the therapy | Annual treatment costs/ patient |
|--------------------------------|-----------------------------------|
| Total | € 6,041.36 |
| Simultaneous radiochemotherapy | |
| Radiotherapy | € 3,430.39 - € 4,003.24 |
| Chemotherapy | Not calculable |
| Total | Not calculable |
| Adjuvant treatment: | |
| best supportive care | Different from patient to patient |

Costs after deduction of statutory rebates (LAUER-TAXE®) as last revised: 15 September 2024)

Costs for additionally required SHI services: not applicable

Other SHI services:

| Designation of the therapy | Type of service | Costs/ unit | Number/ cycle | Number/ patient/ year | Costs/ patient/ year |
|---|---|-------------|---------------|-----------------------|----------------------|
| Medicinal product to be assessed: Pembrolizumab + platinum-based chemotherapy (neoadjuvant treatment) followed by pembrolizumab (monotherapy) (adjuvant treatment) | | | | | |
| Neoadjuvant treatment: | | | | | |
| Pembrolizumab + platinum-based chemotherapy | | | | | |
| Pembrolizumab + cisplatin + gemcitabine | | | | | |
| Pembrolizumab | Surcharge for the preparation of a parenteral solution containing monoclonal antibodies | € 100 | 1 | 2 - 4 | € 200 - € 400 |
| Cisplatin | Surcharge for production of a parenteral preparation containing cytostatic agents | € 100 | 1 | 4 | € 400 |
| Gemcitabine | Surcharge for production of a parenteral preparation | € 100 | 1 | 8 | € 800 |

| Designation of the therapy | Type of service | Costs/ unit | Number/ cycle | Number/ patient/ year | Costs/ patient/ year |
|---|---|-------------|---------------|-----------------------|----------------------|
| | containing cytostatic agents | | | | |
| Pembrolizumab + cisplatin + pemetrexed | | | | | |
| Pembrolizumab | Surcharge for the preparation of a parenteral solution containing monoclonal antibodies | € 100 | 1 | 2 - 4 | € 200 - € 400 |
| Cisplatin | Surcharge for production of a parenteral preparation containing cytostatic agents | € 100 | 1 | 4 | € 400 |
| Pemetrexed | Surcharge for production of a parenteral preparation containing cytostatic agents | € 100 | 1 | 4 | € 400 |
| Adjuvant treatment: | | | | | |
| Pembrolizumab (monotherapy) | | | | | |
| Pembrolizumab | Surcharge for the preparation of a parenteral solution containing monoclonal antibodies | € 100 | 1 | 7 - 13 | € 700 - € 1,300 |
| Appropriate comparator therapy: | | | | | |
| Patient population b) | | | | | |
| Patient-individual therapy with selection of preoperative (neoadjuvant) systemic chemotherapy with selection of | | | | | |
| Cisplatin + vinorelbine | | | | | |

| Designation of the therapy | Type of service | Costs/ unit | Number/ cycle | Number/ patient/ year | Costs/ patient/ year |
|----------------------------|---|-------------|---------------|-----------------------|----------------------|
| Cisplatin | Surcharge for production of a parenteral preparation containing cytostatic agents | € 100 | 1 | 3 | € 300 |
| Vinorelbine | Surcharge for production of a parenteral preparation containing cytostatic agents | € 100 | 2 | 6 | € 600 |
| Cisplatin + paclitaxel | | | | | |
| Cisplatin | Surcharge for production of a parenteral preparation containing cytostatic agents | € 100 | 1 | 2 | € 200 |
| Paclitaxel | Surcharge for production of a parenteral preparation containing cytostatic agents | € 100 | 1 | 2 | € 200 |
| Cisplatin + gemcitabine | | | | | |
| Cisplatin | Surcharge for production of a parenteral preparation containing cytostatic agents | € 100 | 1 | 3 | € 300 |
| Gemcitabine | Surcharge for production of a parenteral preparation containing cytostatic agents | € 100 | 2 | 6 | € 600 |
| Cisplatin + docetaxel | | | | | |
| Cisplatin | Surcharge for production of a | € 100 | 1 | 3 | € 300 |

| Designation of the therapy | Type of service | Costs/ unit | Number/ cycle | Number/ patient/ year | Costs/ patient/ year |
|----------------------------|---|-------------|---------------|-----------------------|----------------------|
| | parenteral preparation containing cytostatic agents | | | | |
| Docetaxel | Surcharge for production of a parenteral preparation containing cytostatic agents | € 100 | 1 | 3 | € 300 |
| Cisplatin + pemetrexed | | | | | |
| Cisplatin | Surcharge for production of a parenteral preparation containing cytostatic agents | € 100 | 1 | 3 | € 300 |
| Pemetrexed | Surcharge for production of a parenteral preparation containing cytostatic agents | € 100 | 1 | 3 | € 300 |
| Carboplatin + paclitaxel | | | | | |
| Carboplatin | Surcharge for production of a parenteral preparation containing cytostatic agents | € 100 | 1 | 3 | € 300 |
| Paclitaxel | Surcharge for production of a parenteral preparation containing cytostatic agents | € 100 | 1 | 3 | € 300 |
| Carboplatin + gemcitabine | | | | | |
| Carboplatin | Surcharge for production of a parenteral preparation | € 100 | 1 | 3 | € 300 |

| Designation of the therapy | Type of service | Costs/ unit | Number/ cycle | Number/ patient/ year | Costs/ patient/ year |
|----------------------------|---|-------------|---------------|-----------------------|----------------------|
| | containing cytostatic agents | | | | |
| Gemcitabine | Surcharge for production of a parenteral preparation containing cytostatic agents | € 100 | 2 | 6 | € 600 |
| Carboplatin + docetaxel | | | | | |
| Carboplatin | Surcharge for production of a parenteral preparation containing cytostatic agents | € 100 | 1 | 3 | € 300 |
| Docetaxel | Surcharge for production of a parenteral preparation containing cytostatic agents | € 100 | 1 | 3 | € 300 |
| Carboplatin + pemetrexed | | | | | |
| Carboplatin | Surcharge for production of a parenteral preparation containing cytostatic agents | € 100 | 1 | 4 | € 400 |
| Pemetrexed | Surcharge for production of a parenteral preparation containing cytostatic agents | € 100 | 1 | 4 | € 400 |

5. Designation of medicinal products with new active ingredients according to Section 35a, paragraph 3, sentence 4 SGB V that can be used in a combination therapy with the assessed medicinal product

In the context of the designation of medicinal products with new active ingredients pursuant to Section 35a, paragraph 3, sentence 4 SGB V, the following findings are made:

- a) Adults with resectable non-small cell lung carcinoma with tumour cell PD-L1 expression \geq 1% at high risk of recurrence; neoadjuvant and adjuvant treatment
- No medicinal product with new active ingredients that can be used in a combination therapy and fulfils the requirements of Section 35a, paragraph 3, sentence 4 SGB V.
- b) Adults with resectable non-small cell lung carcinoma with tumour cell PD-L1 expression < 1% at high risk of recurrence; neoadjuvant and adjuvant treatment
- No medicinal product with new active ingredients that can be used in a combination therapy that fulfils the requirements of Section 35a, paragraph 3, sentence 4 SGB V.

The designation of combinations exclusively serves the implementation of the combination discount according to Section 130e SGB V between health insurance funds and pharmaceutical companies. The findings made neither restrict the scope of treatment required to fulfil the medical treatment mandate, nor do they make statements about expediency or economic feasibility.