

Talazoparib (new therapeutic indication: prostate cancer, metastatic, castration-resistant, in combination with enzalutamide)

Resolution of: 15 August 2024
Entry into force on: 15 August 2024
Federal Gazette, BAnz AT 23 09 2024 B3

Valid until: unlimited

New therapeutic indication (according to the marketing authorisation of 5 January 2024):

Talzenna is indicated in combination with enzalutamide for the treatment of adult patients with metastatic castration-resistant prostate cancer (mCRPC) in whom chemotherapy is not clinically indicated.

Therapeutic indication of the resolution (resolution of 15 August 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 metastatic castration-resistant prostate cancer (mCRPC) in whom chemotherapy is not clinically indicated and who have not received prior therapy for mCRPC

Appropriate comparator therapy:

- Abiraterone acetate in combination with prednisone or prednisolone (only for patients whose disease is progressive during or after docetaxel-containing chemotherapy; only for patients with asymptomatic or mildly symptomatic disease after failure of androgen deprivation therapy, in whom chemotherapy is not yet clinically indicated)
or
- enzalutamide (only for patients whose disease progresses during or after chemotherapy with docetaxel; only for patients with asymptomatic or mildly symptomatic disease after failure of androgen deprivation therapy in whom chemotherapy is not yet clinically indicated)
or
- olaparib as monotherapy (only for patients with BRCA1/2 mutations (germline and/or somatic) whose disease is progressive after previous treatment that included a new hormonal agent)
or
- olaparib in combination with abiraterone acetate and prednisone or prednisolone (only for patients with BRCA mutations and for patients without BRCA mutations with symptomatic disease progression)

Extent and probability of the additional benefit of talazoparib in combination with enzalutamide compared with enzalutamide:

a1) Adults without HRR deficiency

Hint for a minor benefit.

a2) Adults with HRR deficiency

An additional benefit is not proven.

b) Adults with metastatic castration-resistant prostate cancer (mCRPC) in whom chemotherapy is not clinically indicated and who have received prior therapy for mCRPC

Appropriate comparator therapy:

Patient-individual therapy with selection of:

- abiraterone acetate in combination with prednisone or prednisolone (only for patients whose disease is progressive during or after docetaxel-containing chemotherapy),
- enzalutamide (only for patients whose disease progresses during or after chemotherapy with docetaxel),
- olaparib in combination with abiraterone acetate and prednisone or prednisolone and
- olaparib as monotherapy (only for patients with BRCA1/2 mutations (germline and/or somatic) whose disease is progressive after previous treatment that included a new hormonal agent)

taking into account the previous therapy/ therapies and the BRCA1/2 mutational status.

Extent and probability of the additional benefit of talazoparib in combination with enzalutamide compared to the appropriate comparator therapy:

An additional benefit is not proven.

Study results according to endpoints:¹

- a) Adults with metastatic castration-resistant prostate cancer (mCRPC) in whom chemotherapy is not clinically indicated and who have not received prior therapy for mCRPC

a1) Adults without HRR deficiency

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 | ↓ | Disadvantages in the symptom scales "nausea and vomiting", "fatigue", "dyspnoea" and "appetite loss" |
| Health-related quality of life | ↓ | Disadvantages in the functional scales "global health status", "physical functioning" and "role functioning" |
| Side effects | ↓ | Disadvantages in severe AEs, SAEs and therapy discontinuation due to AEs. In detail, disadvantages in some specific AEs |
| <p>Explanations:</p> <p>↑: statistically significant and relevant positive effect with low/unclear reliability of data</p> <p>↓: statistically significant and relevant negative effect with low/unclear reliability of data</p> <p>↑↑: statistically significant and relevant positive effect with high reliability of data</p> <p>↓↓: statistically significant and relevant negative effect with high reliability of data</p> <p>↔: no statistically significant or relevant difference</p> <p>∅: No data available.</p> <p>n.a.: not assessable</p> | | |

a2) Adults with HRR deficiency

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 | ↔ | Advantages in the symptom scales "pain" and "symptoms of the urinary tract"; Disadvantages in the symptom scales "nausea and vomiting", "fatigue", "dyspnoea" and "appetite loss"; overall, no relevant difference for the benefit assessment |

¹ Data from the dossier assessment of the Institute for Quality and Efficiency in Health Care (IQWiG) (A24-22) unless otherwise indicated.

| Endpoint category | Direction of effect/ risk of bias | Summary |
|---|--------------------------------------|---|
| Health-related quality of life | ↔ | In the overall assessment of all the results, no relevant difference for the benefit assessment; a positive effect was observed for the "physical functioning" functional scale |
| Side effects | ↓ | Disadvantages in severe AEs, SAEs and therapy discontinuation due to AEs. In detail, disadvantages in some specific AEs |
| <p>Explanations:</p> <p>↑: statistically significant and relevant positive effect with low/unclear reliability of data</p> <p>↓: statistically significant and relevant negative effect with low/unclear reliability of data</p> <p>↑↑: statistically significant and relevant positive effect with high reliability of data</p> <p>↓↓: statistically significant and relevant negative effect with high reliability of data</p> <p>↔: no statistically significant or relevant difference</p> <p>∅: No data available.</p> <p>n.a.: not assessable</p> | | |

TALAPRO-2 study (2-part)

Part 2 of the study: ongoing, double-blind, randomised phase III study consisting of 3 cohorts

Talazoparib + enzalutamide vs enzalutamide

Relevant sub-population: Evaluation cohorts 1 (patients without HRR deficiency) and 2 (patients with HRR deficiency) without overlap

FDA data cut-off from 28 March 2023

Mortality

| Endpoint | Talazoparib + enzalutamide | | Enzalutamide | | 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> | HR [95% CI] p value ^a Absolute difference (AD) ^b |
| Overall survival | | | | | |
| without HRR deficiency | 317 | n.r. [37.0; n.c.] 125 (39.4) | 319 | 38.7 [35.0; n.c.] 133 (41.7) | 0.93 [0.73; 1.18]; 0.538 |
| with HRR deficiency | 200 | 41.9 [34.5; n.c.] 60 (30.0) | 199 | 30.8 [26.8; 38.8] 76 (38.2) | 0.67 [0.47; 0.94]; 0.018 |
| Total ^c : | | | | | 0.84 [0.69; 1.02]; 0.076 |

Morbidity

| Endpoint | Talazoparib + enzalutamide | | Enzalutamide | | 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> | HR [95% CI] p value Absolute difference (AD) ^b |
| Progression-free survival (PFS) according to BCIR² | | | | | |
| Study cohort 1 (all-comers) | 402 | n.r. [27.47; n.r.] 151 (37.6) | 403 | 21.95 [16.62; 25.13] 191 (47.4) | 0.63 [0.51; 0.78]; < 0.0001 |
| Study cohort 2 (HRR-deficient) | 200 | n.r. [21.88; n.r.] 66 (33.0) | 199 | 13.80 [11.01; 16.69] 104 (52.3) | 0.45 [0.33; 0.61]; < 0.0001 |

| Endpoint | Talazoparib + enzalutamide | | Enzalutamide | | 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> | HR [95% CI] p value Absolute difference (AD) ^b |
| Symptomatic bone fracture | | | | | |
| without HRR deficiency | 317 | n.r. 30 (9.5) | 319 | n.r. 21 (6.6) | 1.43 [0.82; 2.49]; 0.209 |
| with HRR deficiency | 200 | n.r. 19 (9.5) | 199 | n.r. 14 (7.0) | 1.17 [0.59; 2.34]; 0.651 |
| Total ^c | | | | | 1.32 [0.86; 2.04]; 0.207 |
| Spinal cord compression | | | | | |
| without HRR deficiency | 317 | n.r. 17 (5.4) | 319 | n.r. 19 (6.0) | 0.88 [0.46; 1.69]; 0.701 |
| with HRR deficiency | 200 | n.r. 12 (6.0) | 199 | n.r. 12 (6.0) | 0.88 [0.39; 1.96]; 0.755 |
| Total ^c | | | | | 0.88 [0.53; 1.46]; 0.621 |

²Data on talazoparib from module 4 of the pharmaceutical company from 02.02.2024

| Worst pain (BPI-SF question 3 – time to first confirmed deterioration^d) | | | | | |
|--|-------------------------------|-------------------------------|-----|--------------------------------|-------------------------------|
| without HRR deficiency | No suitable data ^e | | | | |
| with HRR deficiency | No suitable data ^e | | | | |
| Impairment due to pain (BPI-SF question 9a-g – time to first confirmed deterioration^f) | | | | | |
| without HRR deficiency | No suitable data ^e | | | | |
| with HRR deficiency | No suitable data ^e | | | | |
| Symptomatology (EORTC QLQ-C30 – time to 1st deterioration^g) | | | | | |
| Fatigue | | | | | |
| without HRR deficiency | 311 | 1.9 [1.9; 2.8] 239 (76.8) | 314 | 3.7 [2.8; 4.6] 226 (72.0) | 1.26 [1.05; 1.52]; 0.012 |
| with HRR deficiency | 197 | 2.8 [1.9; 3.7] 138 (70.1) | 197 | 3.7 [2.3; 4.6] 127 (64.5) | 1.10 [0.86; 1.41]; 0.401 |
| Total ^c | | | | | 1.20 [1.03; 1.39]; 0.016 |
| Nausea and vomiting | | | | | |
| without HRR deficiency | 311 | 9.2 [5.6; 16.3] 159 (51.1) | 314 | 34.0 [17.5; n.c.] 122 (8.9) | 1.54 [1.22; 1.95]; < 0.001 |
| with HRR deficiency | 197 | 10.6 [7.4; 19.4] 91 (46.2) | 197 | 13.8 [8.3; 27.7] 79 (40.1) | 1.11 [0.82; 1.51]; 0.500 |
| Total ^c | | | | | 1.36 [1.13; 1.64]; 0.001 |
| Pain | | | | | |
| Effect modification by the characteristic HRR gene mutational status | | | | | |
| without HRR deficiency | 311 | 7.4 [4.7; 9.2] 186 (59.8) | 314 | 9.3 [7.4; 11.7] 179 (57.0) | 1.09 [0.89; 1.34]; 0.397 |
| with HRR deficiency | 197 | 9.3 [6.5; 15.6] 108 (54.8) | 197 | 5.6 [3.7; 6.6] 121 (61.4) | 0.64 [0.49; 0.83]; < 0.001 |
| Total ^c | | | | | 0.89 [0.76; 1.05]; 0.166 |
| Interaction^h | | | | | 0.002 |

| | | | | | |
|------------------------|-----|---------------------------------|-----|---------------------------------|-------------------------------|
| Dyspnoea | | | | | |
| without HRR deficiency | 311 | 6.4 [4.9; 9.3] 183 (58.8) | 314 | 16.4 [10.3; 23.0] 151 (48.1) | 1.43 [1.16; 1.78]; 0.001 |
| with HRR deficiency | 197 | 8.3 [5.6; 13.8] 99 (50.3) | 197 | 9.2 [5.6; 13.9] 91 (46.2) | 1.02 [0.77; 1.36]; 0.883 |
| Total ^c | | | | | 1.27 [1.07; 1.50]; 0.007 |
| Insomnia | | | | | |
| without HRR deficiency | 311 | 11.1 [8.4; 15.7] 157 (50.5) | 314 | 9.1 [5.6; 15.7] 163 (51.9) | 0.91 [0.73; 1.14]; 0.414 |
| with HRR deficiency | 197 | 16.6 [10.2; 24.9] 86 (43.7) | 197 | 10.2 [5.6; 17.4] 91 (46.2) | 0.82 [0.61; 1.10]; 0.168 |
| Total ^c | | | | | 0.88 [0.73; 1.05]; 0.145 |
| Appetite loss | | | | | |
| without HRR deficiency | 311 | 5.6 [4.0; 9.2] 187 (60.1) | 314 | 15.7 [11.1; 21.2] 155 (49.4) | 1.44 [1.17; 1.78]; < 0.001 |
| with HRR deficiency | 197 | 7.4 [4.7; 11.9] 104 (52.8) | 197 | 11.1 [7.5; 13.8] 96 (48.7) | 1.09 [0.82; 1.44]; 0.573 |
| Total ^c | | | | | 1.30 [1.10; 1.54]; 0.002 |
| Constipation | | | | | |
| without HRR deficiency | 311 | 11.0 [7.3; 15.7] 156 (50.2) | 314 | 18.5 [11.1; 25.0] 139 (44.3) | 1.17 [0.93; 1.47]; 0.176 |
| with HRR deficiency | 197 | 15.7 [7.5; 24.0] 89 (45.2) | 197 | 11.1 [7.4; 19.4] 87 (44.2) | 0.91 [0.67; 1.22]; 0.512 |
| Total ^c | | | | | 1.07 [0.89; 1.28]; 0.488 |
| Diarrhoea | | | | | |
| without HRR deficiency | 311 | 34.1 [21.2; n.c.] 116 (37.3) | 314 | 26.1 [21.2; n.c.] 116 (36.9) | 0.92 [0.71; 1.19]; 0.520 |
| with HRR deficiency | 197 | 19.3 [14.1; 27.6] 77 (39.1) | 197 | 26.1 [19.4; n.c.] 58 (29.4) | 1.23 [0.88; 1.74]; 0.229 |
| Total ^c | | | | | 1.02 [0.83; 1.26]; 0.830 |

| Symptomatology (EORTC QLQ-PR25 – time to 1st deterioration^g) | | | | | |
|--|-------------------------------|---------------------------------|-----|---------------------------------|-----------------------------|
| Symptoms of the urinary tract | | | | | |
| Effect modification by the characteristic HRR gene mutational status | | | | | |
| without HRR deficiency | 311 | 24.9 [13.9; 32.3] 136 (43.7) | 314 | 32.2 [19.3; n.c.] 119 (37.9) | 1.10 [0.86; 1.40]; 0.455 |
| with HRR deficiency | 197 | 32.3 [23.0; n.c.] 62 (31.5) | 197 | 15.6 [9.5; 21.7] 76 (38.6) | 0.58 [0.41; 0.82]; 0.002 |
| Total ^c | | | | | 0.89 [0.73; 1.09]; 0.252 |
| Interaction^h | | | | | 0.003 |
| Bowel symptoms | | | | | |
| without HRR deficiency | 311 | n.r. [30.8; n.c.] 98 (31.5) | 314 | n.r. [34.4; n.c.] 83 (26.4) | 1.16 [0.87; 1.55]; 0.320 |
| with HRR deficiency | 197 | n.r. [28.6; n.c.] 49 (24.9) | 197 | n.r. [27.9; n.c.] 51 (25.9) | 0.75 [0.51; 1.12]; 0.154 |
| Total ^c | | | | | 1.00 [0.79; 1.26]; 0.971 |
| Hormone treatment-related symptoms | | | | | |
| without HRR deficiency | 311 | 9.3 [7.4; 12.6] 162 (52.1) | 314 | 12.5 [8.3; 21.9] 148 (47.1) | 1.12 [0.90; 1.40]; 0.326 |
| with HRR deficiency | 197 | 9.3 [5.6; 15.6] 96 (48.7) | 197 | 7.4 [4.7; 11.0] 92 (46.7) | 0.86 [0.64; 1.15]; 0.306 |
| Total ^c | | | | | 1.02 [0.85; 1.21]; 0.845 |
| Incontinence aid | | | | | |
| without HRR deficiency | No suitable data ⁱ | | | | |
| with HRR deficiency | No suitable data ⁱ | | | | |
| Health status (EQ-5D VAS – time to 1st deterioration^j) | | | | | |

| | | | | | |
|------------------------|-----|--------------------------------|-----|--------------------------------|-----------------------------|
| without HRR deficiency | 311 | 12.0 [6.5; 21.3] 157 (50.5) | 314 | 15.7 [8.4; 21.4] 151 (48.1) | 1.05 [0.84; 1.31]; 0.685 |
| with HRR deficiency | 197 | 16.1 [7.5; 30.4] 88 (44.7) | 197 | 9.2 [7.3; 12.0] 96 (48.7) | 0.76 [0.57; 1.01]; 0.062 |
| Total ^c | | | | | 0.93 [0.78; 1.11]; 0.416 |

Health-related quality of life

| Endpoint | Talazoparib + enzalutamide | | Enzalutamide | | 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> | HR [95% CI] p value Absolute difference (AD) ^b |
| EORTC QLQ-C30 – time to 1st deterioration^k | | | | | |
| Global health status | | | | | |
| Effect modification by the characteristic HRR gene mutational status | | | | | |
| without HRR deficiency | 311 | 3.7 [2.9; 4.7] 213 (68.5) | 314 | 7.6 [6.4; 9.4] 189 (60.2) | 1.32 [1.09; 1.61]; 0.005 |
| with HRR deficiency | 197 | 6.4 [4.6; 8.4] 116 (58.9) | 197 | 6.5 [3.7; 8.3] 111 (56.3) | 0.94 [0.72; 1.22]; 0.649 |
| Total ^c | | | | | 1.17 [1.001; 1.37]; 0.049 |
| Interaction^h | | | | | 0.042 |
| Physical functioning | | | | | |
| Effect modification by the characteristic HRR gene mutational status | | | | | |
| without HRR deficiency | 311 | 5.6 [3.7; 7.4] 211 (67.8) | 314 | 8.3 [6.5; 13.7] 184 (58.6) | 1.30 [1.07; 1.59]; 0.009 |
| with HRR deficiency | 197 | 8.3 [5.6; 10.3] 108 (54.8) | 197 | 5.6 [4.5; 7.5] 117 (59.4) | 0.76 [0.59; 0.99]; 0.043 |
| Total ^c | | | | | 1.07 [0.91; 1.25]; 0.424 |

| | | | | | | |
|--|-----|--------------------------------|-----|---------------------------------|--------------------------------|--------------|
| | | | | | Interaction^h | 0.001 |
| Role functioning | | | | | | |
| Effect modification by the characteristic HRR gene mutational status | | | | | | |
| without HRR deficiency | 311 | 5.5 [3.7; 6.5] 218 (70.1) | 314 | 7.4 [5.6; 9.2] 181 (57.6) | 1.32 [1.08; 1.60]; 0.006 | |
| with HRR deficiency | 197 | 7.4 [4.8; 10.2] 114 (57.9) | 197 | 6.5 [4.5; 9.2] 111 (56.3) | 0.88 [0.68; 1.15]; 0.351 | |
| Total ^c | | | | | 1.14 [0.98; 1.34]; 0.100 | |
| | | | | | Interaction^h | 0.015 |
| Emotional functioning | | | | | | |
| without HRR deficiency | 311 | 17.5 [9.2; 28.6] 143 (46.0) | 314 | 23.1 [17.5; 31.5] 132 (42.0) | 1.12 [0.88; 1.42]; 0.360 | |
| with HRR deficiency | 197 | 13.6 [8.2; 21.1] 86 (43.7) | 197 | 9.3 [8.2; 15.6] 90 (45.7) | 0.82 [0.61; 1.10]; 0.187 | |
| Total ^c | | | | | 0.99 [0.82; 1.19]; 0.912 | |
| Cognitive functioning | | | | | | |
| without HRR deficiency | 311 | 4.6 [2.8; 6.5] 208 (66.9) | 314 | 4.6 [3.7; 6.4] 195 (62.1) | 1.06 [0.87; 1.29]; 0.551 | |
| with HRR deficiency | 197 | 5.7 [3.7; 9.2] 113 (57.4) | 197 | 4.6 [2.8; 6.5] 113 (57.4) | 0.85 [0.66; 1.11]; 0.232 | |
| Total ^c | | | | | 0.98 [0.84; 1.14]; 0.781 | |
| Social functioning | | | | | | |
| without HRR deficiency | 311 | 4.6 [3.7; 6.5] 199 (64.0) | 314 | 8.9 [6.4; 11.7] 180 (57.3) | 1.18 [0.96; 1.44]; 0.107 | |
| with HRR deficiency | 197 | 6.5 [4.7; 10.6] 110 (55.8) | 197 | 7.4 [5.5; 12.0] 100 (50.8) | 1.01 [0.77; 1.33]; 0.912 | |
| Total ^c | | | | | 1.12 [0.95; 1.31]; 0.184 | |
| EORTC QLQ-PR25 – time to 1st deterioration^k | | | | | | |

| | | | | | |
|------------------------|-------------------------------|---------------------------------|-----|-------------------|-----------------------------|
| Sexual activity | | | | | |
| without HRR deficiency | 311 | n.r. [26.7; n.c.] 103 (33.1) | 314 | n.r. 89 (28.3) | 1.19 [0.89; 1.58]; 0.237 |
| with HRR deficiency | 197 | n.r. 52 (26.4) | 197 | n.r. 43 (21.8) | 1.07 [0.71; 1.60]; 0.751 |
| Total ^c | | | | | 1.15 [0.91; 1.45]; 0.247 |
| Sexual functioning | | | | | |
| without HRR deficiency | No suitable data ⁱ | | | | |
| with HRR deficiency | No suitable data ⁱ | | | | |

Side effects

| Endpoint | Talazoparib + enzalutamide | | Enzalutamide | | Intervention vs control |
|---|----------------------------|---|--------------|---|---|
| | N | Median in months [95% CI] <i>Patients with event n (%)</i> | N | Median in months [95% CI] <i>Patients with event n (%)</i> | HR [95% CI] p value Absolute difference (AD) ^b |
| Adverse events in total | | | | | |
| without HRR deficiency | 314 | 0.6 [0.5; 0.9] 310 (98.7) | 317 | 1.0 [0.8; 1.2] 301 (95.0) | |
| with HRR deficiency | 198 | 0.5 [0.5; 0.7] 196 (99.0) | 199 | 0.6 [0.5; 0.8] 194 (97.5) | |
| Serious adverse events (SAE) | | | | | |
| without HRR deficiency | 314 | 35.3 [25.0; n.c.] 133 (42.4) | 317 | 40.5 [40.5; 46.5] 90 (28.4) | 1.51 [1.15; 1.97]; 0.002 |
| with HRR deficiency | 198 | 44.4 [33.9; 44.4] 67 (33.8) | 199 | n.r. [32.7; n.c.] 42 (21.1) | 1.39 [0.94; 2.04]; 0.098 |
| Total ^c | | | | | 1.47 [1.18; 1.83]; < 0.001 |
| Severe adverse events (CTCAE grade 3 or 4) | | | | | |

| | | | | | |
|---|------------------|------------------------------|-----|---------------------------------|-------------------------------|
| without HRR deficiency | 314 | 3.7 [3.3; 4.6] 249 (79.3) | 317 | 21.4 [17.6; 29.0] 145 (45.7) | 2.40 [1.95; 2.94]; < 0.001 |
| with HRR deficiency | 198 | 4.7 [4.1; 6.6] 137 (69.2) | 199 | 23.7 [17.6; n.c.] 81 (40.7) | 2.00 [1.52; 2.64]; < 0.001 |
| Total ^c | | | | | 2.25 [1.91; 2.65]; < 0.001 |
| Therapy discontinuation due to adverse events | | | | | |
| without HRR deficiency | 314 | n.r. 70 (22.3) | 317 | n.r. 38 (12.0) | 1.78 [1.20; 2.64]; 0.004 |
| with HRR deficiency | 198 | 44.4 [n. c.] 23 (11.6) | 199 | n.r. 16 (8.0) | 1.12 [0.58; 2.13]; 0.740 |
| Total ^c | | | | | 1.57 [1.12; 2.20]; 0.009 |
| Specific adverse events | | | | | |
| MDS (PT, AEs) | | | | | |
| without HRR deficiency | No suitable data | | | | |
| with HRR deficiency | No suitable data | | | | |
| AML (PT, AEs) | | | | | |
| without HRR deficiency | No suitable data | | | | |
| with HRR deficiency | No suitable data | | | | |
| Dizziness (PT, AEs) | | | | | |
| Effect modification by the characteristic HRR gene mutational status | | | | | |
| without HRR deficiency | 314 | n.r. 44 (14.0) | 317 | n.r. 15 (4.7) | 2.85 [1.59; 5.13]; < 0.001 |
| with HRR deficiency | 198 | n.r. 20 (10.1) | 199 | n.r. 16 (8.0) | 1.16 [0.60; 2.24]; 0.657 |
| Total ^c | | | | | 1.92 [1.24; 2.97]; 0.004 |
| Interaction^h | | | | | 0.046 |

| | | | | | |
|---|-----|--------------------------------|-----|------------------|---------------------------------|
| Infections and infestations (SOC, SAEs) | | | | | |
| without HRR deficiency | 314 | n.r. 25 (8.0) | 317 | n.r. 10 (3.2) | 2.26 [1.09; 4.71]; 0.025 |
| with HRR deficiency | 198 | n.r. 13 (6.6) | 199 | n.r. 8 (4.0) | 1.30 [0.54; 3.14]; 0.565 |
| Total ^e | | | | | 1.80 [1.03; 3.16]; 0.040 |
| Anaemia (PT, severe AEs) | | | | | |
| without HRR deficiency | 314 | 19.3 [9.2; 38.2] 157 (50.0) | 317 | n.r. 12 (3.8) | 16.76 [9.31; 30.15]; < 0.001 |
| with HRR deficiency | 198 | 36.0 [20.3; n.c.] 83 (41.9) | 199 | n.r. 9 (4.5) | 10.27 [5.16; 20.44]; < 0.001 |
| Total ^e | | | | | 13.63 [8.72; 21.31]; < 0.001 |
| Investigations (SOC, severe AEs) | | | | | |
| without HRR deficiency | 314 | n.r. 97 (30.9) | 317 | n.r. 22 (6.9) | 4.79 [3.01; 7.60]; < 0.001 |
| with HRR deficiency | 198 | n.r. [35.9; n.c.] 55 (27.8) | 199 | n.r. 17 (8.5) | 3.22 [1.87; 5.56]; < 0.001 |
| Total ^e | | | | | 4.05 [2.85; 5.77]; < 0.001 |
| <p>^a Cox proportional hazards model; for cohort 1 (without HRR mutation) unadjusted, for cohort 2 (with HRR mutation) adjusted by stratification factor prior therapy with taxanes or therapy with novel hormonal active ingredients (yes vs no)</p> <p>^b Data on absolute difference (AD) only in the case of statistically significant difference; own calculation</p> <p>^c IQWiG calculation by means of a meta-analysis using a fixed effect</p> <p>^d An increase in score by ≥ 2 points compared to the start of the study is considered a clinically relevant deterioration (scale range 0 to 10).</p> <p>^e The written statement procedure showed that the endpoints "worst pain" and "impairment due to pain" were not operationalised as "time to first deterioration" but as "time to first confirmed deterioration", contrary to the information in the pharmaceutical company's dossier; however, these data cannot be interpreted without the information on first deterioration.</p> <p>^f An increase in score by $\geq 15\%$ of the scale range compared to the start of the study is considered a clinically relevant deterioration (scale range 0 to 10).</p> <p>^g An increase in score by ≥ 10 points compared to the start of the study is considered a clinically relevant deterioration (scale range 0 to 100).</p> <p>^h IQWiG calculation by means of the Q-test from a meta-analysis using a fixed effect</p> <p>ⁱ For about 50% and 91% of patients, respectively, no incontinence aid or sexual functioning survey was available at the start of the study. At least this percentage of patients was not included in the evaluation.</p> | | | | | |

The pharmaceutical company's approach does not ensure that the burden of patients who only develop incontinence or limitation of the sexual function in the course of treatment is assessed.

^j A decrease by $\geq 15\%$ of the scale range compared to the start of the study is considered a clinically relevant deterioration (scale range 0 to 100).

^k A decrease in score by ≥ 10 points compared to the start of the study is considered a clinically relevant deterioration (scale range 0 to 100).

Abbreviations used:

AD = absolute difference; AML = acute myeloid leukaemia; BPI-SF = Brief Pain Inventory - Short Form; CTCAE = Common Terminology Criteria for Adverse Events; EORTC = European Organisation for Research and Treatment of Cancer; HR = hazard ratio; HRR = homologous recombination repair; CI = confidence interval; N = number of patients evaluated; n = number of patients with (at least one) event; n.c. = not calculable; n.r. = not reached; PT = preferred term; QLQ-C30 = Quality of Life Questionnaire – Core 30; QLQ-PR25 = Quality of Life Questionnaire – Prostate 25; SOC = system organ class; VAS = visual analogue scale; vs = versus

b) Adults with metastatic castration-resistant prostate cancer (mCRPC) in whom chemotherapy is not clinically indicated and who have received prior therapy for mCRPC

No data are available to allow an assessment of the additional benefit.

Summary of results for relevant clinical endpoints

| Endpoint category | Direction of effect/ risk of bias | Summary |
|--|-----------------------------------|--------------------|
| Mortality | ∅ | No data available. |
| Morbidity | ∅ | No data available. |
| Health-related quality of life | ∅ | No data available. |
| Side effects | ∅ | No data available. |
| 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 | | |

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

a) Adults with metastatic castration-resistant prostate cancer (mCRPC) in whom chemotherapy is not clinically indicated and who have not received prior therapy for mCRPC

and

b) Adults with metastatic castration-resistant prostate cancer (mCRPC) in whom chemotherapy is not clinically indicated and who have received prior therapy for mCRPC
 approx. 9,400 to 12,200 patients in total

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 Talzenna (active ingredient: talazoparib) agreed upon in the context of the marketing authorisation at the following publicly accessible link (last access: 6 August 2024):

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

Treatment with talazoparib should only be initiated and monitored by specialists in internal medicine, haematology, and oncology as well as specialists in urology and further doctors from other professional groups participating in the Oncology Agreement who are experienced in the treatment of patients with prostate cancer.

Medicinal castration with a GnRH agonist or antagonist should be continued during the treatment of patients who have not been surgically castrated.

4. Treatment costs

Annual treatment costs:

- a) Adults with metastatic castration-resistant prostate cancer (mCRPC) in whom chemotherapy is not clinically indicated and who have not received prior therapy for mCRPC

| Designation of the therapy | Annual treatment costs/ patient |
|---|---------------------------------|
| Medicinal product to be assessed: | |
| Talazoparib + enzalutamide + GnRH analogues | |
| Talazoparib | € 42,285.25 |
| Enzalutamide | € 40,687.07 |
| GnRH analogues | € 1,283.70 - € 2,337.86 |
| Total | € 84,256.02- € 85,310.18 |
| Appropriate comparator therapy: | |
| Abiraterone acetate + prednisone or prednisolone + GnRH analogues | |
| Abiraterone acetate | € 1,456.96 |
| Prednisone or prednisolone | € 55.85 - € 70.19 |
| GnRH analogues | € 1,283.70 - € 2,337.86 |
| Total | € 2,796.51- € 3,865.01 |
| Enzalutamide + GnRH analogues | |
| Enzalutamide | € 40,687.07 |
| GnRH analogues | € 1,283.70 - € 2,337.86 |

| Designation of the therapy | Annual treatment costs/ patient |
|--|---------------------------------|
| Total | € 41,970.77- € 43,024.93 |
| Olaparib as monotherapy + GnRH analogues | |
| Olaparib | € 58,564.51 |
| GnRH analogues | € 1,283.70 - € 2,337.86 |
| Total | € 59,848.21- € 60,902.37 |
| Olaparib + abiraterone acetate + prednisone or prednisolone + GnRH analogues | |
| Olaparib | € 58,564.51 |
| Abiraterone acetate | € 1,456.96 |
| Prednisone or prednisolone | € 55.85 - € 70.19 |
| GnRH analogues | € 1,283.70 - € 2,337.86 |
| Total | € 61,361.02- € 62,429.52 |

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

Costs for additionally required SHI services: not applicable

b) Adults with metastatic castration-resistant prostate cancer (mCRPC) in whom chemotherapy is not clinically indicated and who have received prior therapy for mCRPC

| Designation of the therapy | Annual treatment costs/ patient |
|---|---------------------------------|
| Medicinal product to be assessed: | |
| Talazoparib + enzalutamide + GnRH analogues | |
| Talazoparib | € 42,285.25 |
| Enzalutamide | € 40,687.07 |
| GnRH analogues | € 1,283.70 - € 2,337.86 |
| Total | € 84,256.02- € 85,310.18 |
| Appropriate comparator therapy: | |
| Abiraterone acetate + prednisone or prednisolone + GnRH analogues | |
| Abiraterone acetate | € 1,456.96 |
| Prednisone or prednisolone | € 55.85 - € 70.19 |
| GnRH analogues | € 1,283.70 - € 2,337.86 |
| Total | € 2,796.51- € 3,865.01 |
| Enzalutamide + GnRH analogues | |
| Enzalutamide | € 40,687.07 |
| GnRH analogues | € 1,283.70 - € 2,337.86 |
| Total | € 41,970.77- € 43,024.93 |
| Olaparib as monotherapy + GnRH analogues | |

| Designation of the therapy | Annual treatment costs/ patient |
|--|---------------------------------|
| Olaparib | € 58,564.51 |
| GnRH analogues | € 1,283.70 - € 2,337.86 |
| Total | € 59,848.21- € 60,902.37 |
| Olaparib + abiraterone acetate + prednisone or prednisolone + GnRH analogues | |
| Olaparib | € 58,564.51 |
| Abiraterone acetate | € 1,456.96 |
| Prednisone or prednisolone | € 55.85 - € 70.19 |
| GnRH analogues | € 1,283.70 - € 2,337.86 |
| Total | € 61,361.02- € 62,429.52 |

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

Costs for additionally required SHI services: not applicable

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 metastatic castration-resistant prostate cancer (mCRPC) in whom chemotherapy is not clinically indicated and who have not received prior therapy for mCRPC
 - 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 metastatic castration-resistant prostate cancer (mCRPC) in whom chemotherapy is not clinically indicated and who have received prior therapy for mCRPC
 - 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.