# Pembrolizumab in the treatment of advanced or metastatic bladder cancer in patients contraindicated for treatment with cisplatin

**Approved in COHERE meeting on 4 September 2018**

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| Recommendation by COHERE | | Pembrolizumab is not included in the range of services of the Finnish health care system as first-line therapy for the treatment of locally advanced or metastatic bladder cancer in patients contraindicated for treatment with cisplatin.<br><br>Pembrolizumab is included in the range of services of the Finnish health care system as second-line or later therapy (≥2) for the treatment of locally advanced or metastatic bladder cancer in adult patients who have previously been treated with a platinum-based cytostatic agent. A precondition for this recommendation is a discount in price, and the treatment can be implemented with the PD-1/PD-L1 inhibitor that has the lowest cost at the time, taking into account the cost of procurement and administration. |
| Grounds | Severity and prevalence of the health issue | The prognosis of an advanced or metastatic bladder cancer (urothelial carcinoma) is usually poor. Fimea estimates that the number of patients receiving pembrolizumab, nivolumab, atetzolizumab might be 5–10 patients per year in first-line therapy and 50–70 patients per year in second-line or later therapy. |
| | Treatment options | Patients who are contraindicated for cisplatin therapy are treated with a combined treatment of carboplatin with gemcitabine (first-line therapy). In addition to atetzolizumab, pembrolizumab is indicated for first-line therapy.<br>Vinflunine or taxane can be used as second-line or later therapy in patients whose disease progresses after treatment with platinum. In addition to pembrolizumab, two PD-1 inhibitors, nivolumab and atetzolizumab, are indicated for second-line therapy. |
| | Effectiveness | *First-line therapy (in patients contraindicated for treatment with cisplatin)*<br>Significant uncertainty exists concerning the efficacy of pembrolizumab as first-line therapy, and the research evidence is not sufficient to determine the medical justifiability.<br>*Second-line or later therapy (after therapy with a platinum-containing based cytostatic agent)*<br>The expected added clinical benefit is limited. The benefit seems to manifest itself as a long-term response to therapy in patients who do respond to therapy. |
| | Safety | The use of pembrolizumab is associated with adverse effects generally related to the functioning of the immune system, such as pneumonitis, hepatitis, hyperthyroidism or hypothyroidism. The occurrence of adverse effects with nivolumab is lower than in therapy with cytostatic agents. |
| | Costs and impact on the budget | The pharmaceutical costs of a single course of therapy (21 days) at list price is approximately: EUR 7,000<br>First-line therapy: If 5–10 patients a year were given pembrolizumab (EUR 65,000 per patient) or another PD-1/PD-L1 inhibitor instead of carboplatin-gemcitabine, it would increase costs by EUR 0.22–0.60 million.<br>Second-line or later therapy: If 50–70 patients a year were given pembrolizumab or another PD-1/PD-L1 inhibitor, it would increase costs by EUR 1.8–3.8 million. |
| | Ethical and financial aspects as a whole | The intention is to share all available healthcare resources fairly among the people who need health care services. In particular, the adoption of expensive new methods is also assessed from the perspective of the available financial resources of the society and the health care system. The discounts given on the price of PD-1/PD-L1 inhibitors vary by hospital. It is justified to treat advanced bladder cancer with the drug that has the lowest cost at the time, taking into account the cost of procurement and administration. |
| Collection of further evidence | | Data on the number of patients treated, duration of treatment and outcomes (as far as possible) should be collected and reported routinely. |
| Diagnosis (ICD-10) codes | | C67 Bladder cancer |
| Background information and references | | COHERE memorandum, Evaluation report by Fimea |