

NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Single Technology Appraisal

Atezolizumab in combination with platinum-based chemotherapy for untreated locally advanced or metastatic urothelial cancer

Final scope

Remit/appraisal objective

To appraise the clinical and cost effectiveness of atezolizumab in combination with platinum-based chemotherapy within its marketing authorisation for untreated locally advanced or metastatic urothelial cancer.

Background

Urothelial carcinoma is cancer of the transitional cells which form the inner lining of the bladder, urethra, ureter, or renal pelvis. Urothelial carcinoma is most common in the bladder, and accounts for 90% of bladder cancers¹. Urothelial carcinomas can be described as non-invasive or invasive depending on how far the carcinomas invade the tissues. Non-invasive urothelial carcinomas can be further split into papillary carcinomas or flat carcinomas. Papillary carcinomas often grow towards the hollow part of the organ (for example bladder and ureter), without going into deeper layers. Flat carcinomas remain in the inner layers. Both papillary and flat carcinomas can become invasive.

In 2017, 8,686 new bladder cancers were diagnosed in England.² Bladder cancer accounts for around 1 in every 30 new cancer diagnoses each year in the UK, with an overall incidence of around 17 per 100,000.³ About a quarter of bladder cancers are diagnosed at a late stage⁴. The majority of cases are in those over the age of 60 but can also affect young people too.

People with locally advanced or metastatic urothelial cancer may have surgery and/or radiotherapy. Chemotherapy may be given before (neoadjuvant) or after surgery and/or radiotherapy in an attempt to improve cure rates. If the cancer is too advanced for surgery/radiotherapy or has recurred after these treatments, chemotherapy can be used to improve quality of life and survival. NICE guideline NG2 recommends cisplatin-based regimens (such as gemcitabine plus cisplatin or accelerated [high dose] methotrexate, vinblastine, doxorubicin and cisplatin [MVAC] plus granulocyte stimulating factor [G-CSF]) for untreated disease. Carboplatin plus gemcitabine may be considered for untreated disease if cisplatin is unsuitable. In people for whom cisplatin is unsuitable, and their tumours express PD-L1 at a level of 5% or more, [NICE technology appraisal 492](#) recommends atezolizumab within the Cancer Drugs Fund. Where cisplatin is unsuitable and tumours express PD-L1 with a combined positive score of 10 or more, [NICE](#)

[technology appraisal 522](#) recommends pembrolizumab within the Cancer Drugs Fund^a.

The technology

Atezolizumab (Tecentriq, Roche) is a humanised, anti-programmed cell death ligand-1 (PD-L1) monoclonal antibody involved in the blockade of immune suppression and the subsequent reactivation of anergic T-cells. It is administered intravenously.

Atezolizumab with platinum-based chemotherapy does not currently have a marketing authorisation in the UK for untreated urothelial cancer. It has been studied in a clinical trial compared to chemotherapy alone in people with untreated locally advanced or metastatic urothelial cancer who are eligible or ineligible for cisplatin.

Intervention(s)	Atezolizumab with platinum-based chemotherapy
Population(s)	Adults with locally advanced or metastatic urothelial cancer who have had no previous chemotherapy treatment.
Comparators	<p>People for whom cisplatin-based chemotherapy is suitable:</p> <ul style="list-style-type: none"> • Gemcitabine plus cisplatin • Accelerated methotrexate, vinblastine, doxorubicin and cisplatin (MVAC) plus granulocyte-colony stimulating factor (G-CSF) <p>People for whom cisplatin-based chemotherapy is unsuitable:</p> <ul style="list-style-type: none"> • Gemcitabine plus carboplatin • Atezolizumab monotherapy (if tumours express PD-L1 at a level of 5% or more) (subject to NICE appraisal) • Pembrolizumab monotherapy (if tumours express PD-L1 with a combined positive score of 10 or more) (subject to NICE appraisal) • Best supportive care

^a Products recommended for use in the Cancer Drugs Fund after 1 April 2016 should not be considered as comparators, or appropriately included in a treatment sequence, in subsequent relevant appraisals. <https://www.nice.org.uk/Media/Default/About/what-we-do/NICE-guidance/NICE-technology-appraisal-guidance/cancer-drugs-fund/CDF-comparator-position-statement.pdf>

Outcomes	<p>The outcome measures to be considered include:</p> <ul style="list-style-type: none"> • overall survival • progression-free survival • response rates • adverse effects of treatment • health-related quality of life.
Economic analysis	<p>The reference case stipulates that the cost effectiveness of treatments should be expressed in terms of incremental cost per quality-adjusted life year.</p> <p>If the technology is likely to provide similar or greater health benefits at similar or lower cost than technologies recommended in published NICE technology appraisal guidance for the same indication, a cost-comparison may be carried out.</p> <p>The reference case stipulates that the time horizon for estimating clinical and cost effectiveness should be sufficiently long to reflect any differences in costs or outcomes between the technologies being compared.</p> <p>Costs will be considered from an NHS and Personal Social Services perspective.</p> <p>The availability of any commercial arrangements for the intervention, comparator or subsequent technologies will be taken into account.</p> <p>The use of atezolizumab with platinum-based chemotherapy is conditional on the presence of PD-L1. The economic modelling should include the costs associated with diagnostic testing for PD-L1 in people with locally advanced or metastatic urothelial carcinoma who would not otherwise have been tested. A sensitivity analysis should be provided without the cost of the diagnostic test. See section 5.9 of the Guide to the Methods of Technology Appraisals.</p>
Other considerations	<p>If the evidence allows, consideration will be given to subgroups based on the biological marker PD-L1.</p> <p>Guidance will only be issued in accordance with the marketing authorisation. Where the wording of the therapeutic indication does not include specific treatment combinations, guidance will be issued only in the context of the evidence that has underpinned the marketing authorisation granted by the regulator.</p>
Related NICE recommendations and NICE Pathways	<p>Related Technology Appraisals:</p> <p>Pembrolizumab for untreated PD-L1 positive locally advanced or metastatic urothelial cancer when cisplatin is unsuitable (2018) NICE technology appraisal guidance 522</p>

	<p>Atezolizumab for untreated PD-L1-positive locally advanced or metastatic urothelial cancer when cisplatin is unsuitable (2017) NICE technology appraisal guidance 492</p> <p>Appraisals in development:</p> <p>Durvalumab for untreated PD-L1 positive metastatic urothelial bladder cancer. NICE technology appraisal guidance [ID1169]. Publication date to be confirmed.</p> <p>Durvalumab with tremelimumab for untreated PD-L1-positive urothelial bladder cancer. NICE technology appraisal guidance [ID1335]. Publication date to be confirmed.</p> <p>Pembrolizumab for advanced, unresectable or metastatic urothelial cancer (CDF review of TA522) [ID1634]. Expected publication date April 2021.</p> <p>Related Guidelines:</p> <p>Bladder cancer: diagnosis and management (2015) NICE guideline 2. Review date 2019.</p> <p>Improving outcomes in urological cancers (2002) NICE cancer service guidance. Review date March 2020.</p> <p>Related Quality Standards:</p> <p>Bladder cancer (2015) NICE quality standard.</p> <p>Related NICE Pathways:</p> <p>Bladder cancer (2018) NICE Pathway.</p>
<p>Related National Policy</p>	<p>Independent Cancer Taskforce (2015) Achieving world-class cancer outcomes: a strategy for England 2015-2020</p> <p>Department of Health (2014) The national cancer strategy: 4th annual report</p> <p>Department of Health (2011) Improving outcomes: a strategy for cancer</p> <p>Department of Health (2009) Cancer commissioning guidance</p> <p>Department of Health (2007) Cancer reform strategy</p> <p>The NHS Long Term Plan, 2019. NHS Long Term Plan</p> <p>NHS England (2018/2019) NHS manual for prescribed specialist services (2018/2019). Chapter 105 specialist cancer services (adults)</p> <p>Department of Health and Social Care (2016) NHS Outcomes Framework 2016-2017</p>

References

1. Cancer Research UK (2015) [Types of bladder cancer](#). Accessed October 2019.

Final scope for the appraisal of atezolizumab in combination with platinum-based chemotherapy for untreated locally advanced or metastatic urothelial cancer. Issue Date: August 2020

2. Office for National Statistics (2019) [Cancer Registration Statistics, England: 2016](#). Accessed October 2019.
3. Cancer Research UK (2016) [Bladder cancer incidence statistics](#). Accessed October 2019.
4. Cancer Research UK (2016) [Bladder cancer incidence statistics](#). Accessed October 2019.