NICE National Institute for Health and Care Excellence

Putting NICE guidance into practice

Resource impact report:
Atezolizumab with bevacizumab for treating advanced or unresectable hepatocellular carcinoma (TA666)

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Summary

NICE has recommended atezolizumab with bevacizumab for treating advanced or unresectable hepatocellular carcinoma.

We estimate that:

- around 890 people with advanced or unresectable hepatocellular carcinoma are eligible for treatment with atezolizumab with bevacizumab each year
- 445 people will have atezolizumab with bevacizumab from 2022/23 onwards once uptake has reached 50% as shown in table 1.

Table 1 Estimated number of people in England having atezolizumab with bevacizumab

	2021/22	2022/23	2023/24	2024/25	2025/26
Uptake rate for atezolizumab with bevacizumab	25%	50%	50%	50%	50%
Population having atezolizumab with bevacizumab each year	223	445	445	445	445

This report is supported by a local resource impact template because the list price of atezolizumab with bevacizumab has a discount that is commercial in confidence. The discounted price of atezolizumab with bevacizumab can be put into the template and other variables may be amended.

This technology is commissioned by NHS England. Providers are NHS hospital trusts.

1 Atezolizumab with bevacizumab

1.1 NICE has recommended atezolizumab with bevacizumab as an option for treating advanced or unresectable hepatocellular carcinoma (HCC) in adults, if they have Child-Pugh grade A liver impairment and an Eastern Cooperative Oncology Group (ECOG) performance status of 0 or 1.

1.2 Standard care for advanced or unresectable HCC is either sorafenib or lenvatinib for people who have not had previous systemic treatment. Atezolizumab plus bevacizumab is a potential new treatment option. There is also a group of patients that are on best supportive care rather than receiving a pharmaceutical intervention.

1.3 Clinical trial evidence shows that people with Child-Pugh grade A liver impairment and an ECOG performance status of 0 or 1 who have atezolizumab plus bevacizumab live longer and have an improved progression-free survival than people who have sorafenib. Results of an indirect comparison suggest that atezolizumab plus bevacizumab is more effective than lenvatinib.

2 Resource impact of the guidance

2.1 We estimate that:

- around 890 people with advanced or unresectable hepatocellular carcinoma are eligible for treatment with atezolizumab with bevacizumab each year
- 445 people will have atezolizumab with bevacizumab from 2022/23 onwards once uptake has reached 50%.

2.2 The current and future uptake figures are based on expert clinical opinion and Blueteq information supplied by NHS England and NHS Improvement and are shown in the resource impact template.

Table 2 shows the number of people in England who are estimated to have atezolizumab with bevacizumab by financial year.

Table 2 Estimated number of people having atezolizumab with bevacizumab using NICE assumptions

	2021/22	2022/23	2023/24	2024/25	2025/26
Uptake rate for atezolizumab with bevacizumab	25%	50%	50%	50%	50%
Population having atezolizumab with bevacizumab each year	223	445	445	445	445

2.3 This report is supported by a local resource impact template. The company has commercial agreements for atezolizumab and bevacizumab (simple discount patient access schemes). These make atezolizumab and bevacizumab available to the NHS with a discount. The discounted price of atezolizumab and bevacizumab can be put into the template and other variables may be amended. The size of the discount is commercial in confidence. It is the company's responsibility to let relevant NHS organisations know details of the discount.

3 Implications for commissioners

3.1 This technology is commissioned by NHS England. Providers are NHS hospital trusts.

3.2 Atezolizumab with bevacizumab will be available through routine commissioning and there will be a resource impact for specialised commissioning.

3.3 Atezolizumab with bevacizumab falls within the programme budgeting category 02B, Cancers and Tumours B.

4 How we estimated the resource impact

The population

4.1 Around 4,900 people were diagnosed with liver cancer in 2017 (Cancer registrations for England, 2018). Table 3 shows the details of the population with advanced or unresectable hepatocellular carcinoma who are estimated to be eligible for treatment with atezolizumab with bevacizumab.

Table 3 Number of people eligible for treatment in England

Population	Proportion of previous row (%)	Number of people
Total population		55,977,178
Adult population		44,022,560
Incidence of liver cancer in adults[1]	00.01	4,900
Proportion of adults with liver cancer that is hepatocellular carcinoma[2]	85	4,165
Proportion of people with liver cancer that is hepatocellular carcinoma and is advanced or unresectionable[3]	50	2,080
Proportion of people that have treatment including best supportive care[4]	55.45	1,155
Proportion of people with Child-Pugh grade A liver impairment[5]	77	890
Total number of people eligible for treatment with atezolizumab with bevacizumab	100	890
Total number of people estimated to have atezolizumab with bevacizumab each year from 2022/23	50	445

[1] https://www.gov.uk/government/statistics/cancer-registration-statistics-england-2018

[2] Hashem B. El-Serag and Jessica A. Davila. Surveillance for hepatocellular carcinoma: in whom and how? Therapeutic advances in gastroenterology. (2011) 4(1) 5 10

[3] Challenges of advanced hepatocellular carcinoma Colagrande S Et Al 2016

[4] Company submission

[5] J King et al. Sorafenib for the Treatment of Advanced Hepatocellular Cancer - A UK Audit. Clinical Oncology (Royal College Radiology) 29 (4), 256-262. 2016 Dec 10

Assumptions

4.2 The resource impact template assumes that:

- of people having active treatment currently 40% of people are treated with sorafenib, 22% are treated with lenvatinib and 38% of people are receiving best supportive care. This is based on current usage in the Blueteq data.
- by year 2 the uptake of the atezolizumab with bevacizumab will reach its maximum level of 50% of the eligible population. Uptake of sorafenib will be 20%, lenvatinib will be of 11% and best supportive care will be 19%. This is based on information from the company submission and expert clinical opinion.
- 1,200mg of atezolizumab is administered intravenously every 3 weeks with an average treatment duration of 12.9 months. Therefore, people will receive 17 doses in the first year of treatment and 1.7 doses in the second year (company submission).
- bevacizumab is given every 3 weeks for a treatment duration of 11.7 months. Therefore, people will receive 17 cycles in the first year of treatment (company submission).
- bevacizumab is administered as 15mg per kg. It is assumed that the average weight of an adult is 78.4kg according to the health survey for England 2018. This results in an average dose of 1,176mg per course of treatment.
- the relevant tariff for the first year of treatment for atezolizumab with bevacizumab is SB13Z, deliver more complex parenteral chemotherapy at first attendance and is £319 per attendance. (National tariff 20/21)
- the relevant tariff for the second year of treatment for atezolizumab (alone) is SB12Z, deliver simple parenteral chemotherapy at first attendance and is £159 per attendance (National tariff 20/21).

- the average dose of sorafenib is 400mg orally twice daily and is taken for on average 5.3 months (NICE TA474).
- the average dose of lenavatinib is 12mg orally once daily and is taken for on average 5.7 months (NICE TA551).
- the relevant tariff for the administration of both sorafenib and lenavatinib is SB11Z, deliver exclusively oral chemotherapy and this is £127 per attendance (National tariff 20/21).

Other factors

4.1 Dose adjustments and the impact on costs have not been modelled and should be considered at a local level.

4.2 As the new treatment is an intravenous therapy there may be an increased need for hospital capacity in order to administer the treatment, with the current treatment being home based oral treatments.

4.3 The use of atezolizumab with bevacizumab could increase the carbon footprint arising from hospital-based intravenous infusions as a result of people switching treatment from home based oral tablets.

About this resource impact report

This resource impact report accompanies the NICE guidance on Atezolizumab with bevacizumab for treating advanced or unresectable hepatocellular carcinoma and should be read with it.