NICE National Institute for Health and Care Excellence

Putting NICE guidance into practice

Resource impact report:
Enzalutamide for treating hormone-sensitive metastatic prostate cancer (TA712)

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Summary

NICE has recommended enzalutamide plus androgen deprivation therapy (ADT), within its marketing authorisation, as an option for treating hormone-sensitive metastatic prostate cancer in adults, only if the company provides enzalutamide according to the commercial arrangement.

This represents a potential shift of enzalutamide plus ADT to earlier in the clinical pathway. Once used at this earlier stage, it would displace subsequent use of enzalutamide plus ADT in the clinical pathway. This is because NHS England does not commission sequential use of enzalutamide plus ADT.

Based on clinical trials data the median treatment duration with enzalutamide plus ADT is expected to be 3 years. Within this 3-year treatment duration, people treated with ADT alone or docetaxel plus ADT may go on to receive enzalutamide plus ADT. The associated costs of enzalutamide plus ADT for these people are modelled in the resource impact template.

Data around use of other treatment options following earlier use of enzalutamide are not available and so have not been modelled in the resource impact template.

We estimate that:

- 10,225 people with hormone-sensitive metastatic prostate cancer are eligible for treatment with enzalutamide each year
- 3,070 people will start enzalutamide each year from year 2022/23 onwards once uptake has reached 30% as shown in table 1. Around 6,140 people will be receiving subsequent years treatment with enzalutamide by 2024/25.

Table 1 Estimated number of people in England receiving enzalutamide

	2021/22	2022/23	2023/24	2024/25	2025/26
Uptake rate for enzalutamide (%)	15	30	30	30	30
Population starting enzalutamide each year	1,530	3,070	3,070	3,070	3,070
Population receiving enzalutamide in subsequent years 2-3 (median 3-year duration of treatment)	0	1,530	4,600	6,140	6,140

This report is supported by a local resource impact template because the list price of enzalutamide has a discount that is commercial in confidence. The discounted price of enzalutamide can be put into the template and other variables may be amended. For enquiries about the patient access scheme contact: commercial@astellas.com.

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

1 Enzalutamide

1.1 NICE has recommended enzalutamide plus androgen deprivation therapy (ADT), within its marketing authorisation, as an option for treating hormone-sensitive metastatic prostate cancer in adults, only if the company provides enzalutamide according to the commercial arrangement.

1.2 Current treatment for hormone-sensitive metastatic prostate cancer in the NHS is androgen deprivation therapy (ADT) alone or docetaxel plus ADT. Docetaxel is not licensed for use for hormone-sensitive metastatic prostate cancer, but NHS England commissions it for up to 6 cycles.

1.3 Enzalutamide plus ADT would offer another option for people with hormone-sensitive metastatic prostate cancer for whom docetaxel is contraindicated or unsuitable. It is taken by mouth and therefore is easier to administer compared to current treatments.

1.4 Use of enzalutamide for people with hormone-sensitive metastatic prostate cancer represents a potential shift of enzalutamide plus ADT to earlier in the clinical pathway. Once used at this earlier stage, it would displace subsequent use of enzalutamide in the clinical pathway. This is because NHS England does not commission sequential use of enzalutamide plus ADT.

2 Resource impact of the guidance

2.1 We estimate that:

- 10,225 people with hormone-sensitive metastatic prostate cancer are eligible for treatment with enzalutamide each year
- 3,070 people will start enzalutamide each year from year 2022/23 onwards once uptake has reached 30% as shown in table 2. Around 6,140 people will be receiving subsequent years treatment with enzalutamide by 2024/25.

2.2 The current treatment and future uptake figure assumptions are based on expert clinical opinion and the company submission and are shown in the resource impact template. Table 2 shows the number of people in England who are estimated to have enzalutamide by financial year.

Table 2 Estimated number of people receiving enzalutamide using NICE assumptions

	2021/22	2022/23	2023/24	2024/25	2025/26
Uptake rate for enzalutamide (%)	15	30	30	30	30
Population starting enzalutamide each year	1.530	3,070	3,070	3,070	3,070
Population receiving enzalutamide in subsequent years 2-3 (median 3-year duration of treatment)	0	1,530	4,600	6,140	6,140

2.3 This report is supported by a local resource impact template. Enzalutamide has an agreed patient access scheme which makes it available with a commercial-in-confidence discount to the list price. The discounted price of enzalutamide can be put into the template and other variables may be amended. For enquiries about the patient access scheme contact: commercial@astellas.com.

Savings and benefits

2.4 Enzalutamide with ADT improves survival in people with hormone-sensitive metastatic prostate cancer. It provides a shift in treatment from later to earlier in the clinical pathway. The committee concluded that having enzalutamide plus ADT at this point in the pathway limits the number of life-extending treatment options compared with having ADT alone or docetaxel plus ADT.

2.5 Enzalutamide may help reduce the cost of drug administration compared with the docetaxel therapy. Potential savings from reduced drug administration costs are modelled in the template.

2.6 The use of enzalutamide might also help to reduce visits to hospital for chemotherapy and make better use of clinical capacity as it is an oral medication which people can take at home.

3 Implications for commissioners

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

3.2 Enzalutamide falls within the programme budgeting category PBC02H: Cancer, Urological.

4 How we estimated the resource impact

The population

4.1 In 2018, around 49,800 new cases of adults with prostate cancer were recorded in England (Public Health England, 2020).

4.2 The number of people eligible for treatment includes people newly diagnosed with hormone-sensitive metastatic prostate cancer and those without but whose disease later progresses to hormone-sensitive metastatic prostate cancer.

4.3 Table 3 shows the total number of people with hormone-sensitive metastatic prostate cancer who are eligible for treatment each year with enzalutamide.

Table 3 Number of people eligible for treatment in England

Population	Proportion of previous row (%)	Number of people
Total population[1]		56,286,961
Adult population[1]		44,263,393
Incidence of prostate cancer[2]	0.1125	49,800
Proportion of people diagnosed with hormone-sensitive metastatic prostate cancer[3] (A)	17	8,470
Proportion of people diagnosed without hormone-sensitive metastatic prostate cancer)[3]	83	41,300
Proportion of people diagnosed without hormone-sensitive metastatic prostate cancer who progress to have hormone-sensitive metastatic prostate cancer[3] (B)	4.25	1,755
Total number of people with hormone-sensitive metastatic prostate cancer eligible for treatment with enzalutamide (A+B)	n/a	10,225
Total number of people estimated to start treatment with enzalutamide each year from year 2022/23[4]	30	3,070

[1] Office for National Statistics

[2] Cancer registration statistics, England: 2018: ICD10 Codes C61

[3] Company submission

[4] Company submission and NHS England expert clinical opinion

Assumptions

4.4 The resource impact template assumes that:

- ADT alone and docetaxel plus ADT are the relevant comparators.
- Because ADT can be given alone or with docetaxel or with enzalutamide, the cost is not included in the modelling because overall, it has zero impact.
- The median treatment duration with enzalutamide before disease progression is 3 years. Users can amend the template to reflect local practice.

- Based on clinical trials data, within the 3-year treatment duration, people treated with ADT alone or docetaxel plus ADT may go on to receive enzalutamide plus ADT. The costs are shown in the resource impact template.
- Data around use of other treatment options following earlier use of enzalutamide are not available and so have not been modelled in the resource impact template.
- The costs of docetaxel plus ADT include concomitant medication. Enzalutamide does not need to be administered with any concomitant medication; therefore, the costs are excluded.
- Enzalutamide administration cost is £114 for each cycle of 28 days (Healthcare resource group SB11Z: Deliver Exclusively Oral Chemotherapy). Taken from NHS national tariff 2020/21.
- No additional costs are needed for treatment with enzalutamide.
- Docetaxel administration cost is £159 for each of the 6 cycles of 21 days (Healthcare resource group SB12Z: Deliver Simple Parenteral Chemotherapy at First Attendance).Taken from NHS national tariff 2020/21.

Other factors

4.5 A median treatment duration of 3 years has been used in the model because there are no mean treatment duration data available.

4.6 Treatment with enzalutamide is to be maintained until disease progression or toxicity that is not tolerated. Therefore, people may continue with treatment throughout the 5-year planning horizon. Clinical experts suggest that around 20% of people who take enzalutamide plus ADT remain progression free at 5 years. Because of the non-availability of data, no treatment discontinuation has been factored into the model.

About this resource impact report

This resource impact report accompanies the NICE guidance on enzalutamide for treating hormone-sensitive metastatic prostate cancer and should be read with it.