NICE National Institute for Health and Care Excellence

Resource impact summary report

Resource impact

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This summary report is based on the NICE assumptions used in the resource impact template. Users can amend the 'Inputs and eligible population' and 'Unit costs' worksheets in the template to reflect local data and assumptions.

Recommendation

NICE has recommended selpercatinib as an option for treating:

- advanced RET-mutant medullary thyroid cancer and
- advanced RET fusion-positive thyroid cancer that is refractory to radioactive iodine (if radioactive iodine is appropriate).

It is for people 12 years and older and is recommended only if:

- the cancer has not been treated with a targeted cancer drug, and
- the company provides it according to the commercial arrangement.

This recommendation is not intended to affect treatment with selpercatinib that was started in the NHS before this guidance was published. People having treatment outside this recommendation may continue without change to the funding arrangements in place for them before this guidance was published, until they and their NHS healthcare professional consider it appropriate to stop. For children or young people, this decision should be made jointly by the healthcare professional, the child or young person, and their parents or carers.

Eligible population for selpercatinib

Table 1 shows the population who are eligible for selpercatinib and the number of people who are expected to have selpercatinib in each of the next 5 years, including population growth.

Table 1 Population expected to be eligible for and have selpercatinib in England

Eligible population and uptake	Current practice (without selpercatinib)	2025 to 2026	2026 to 2027	2027 to 2028	2028 to 2029	2029 to 2030
People eligible for selpercatinib	28	28	29	29	29	29
Uptake for selpercatinib (%)	0	50	95	95	95	95
People starting treatment each year	0	14	27	28	28	28

The following assumptions have been used to calculate the eligible population:

- the Cancer Registrations Statistics, England 2021- NHS Digital estimates there are 3,574 people diagnosed with thyroid cancer each year
- statistics from Public Health England suggest that 89.2% of thyroid cancers are diagnosed at stage 1 and 2, meaning that 10.8% of thyroid cancers are diagnosed at an advanced stage
- medullary thyroid cancer is a rare type of thyroid cancer, only accounting for about 7.5% of thyroid cancers according to Macmillan Cancer Support
- RET mutations occur in 70% of medullary thyroid cancers
- 2% of advanced thyroid cancers will be RET fusion-positive, according to clinical expert opinion.

The uptake for selpercatinib is based on advice received from NHS England. Given the high estimated uptake of selpercatinib as a first-line treatment, we expect very few people to be eligible to receive selpercatinib as a second-line treatment.

Treatment options for the eligible population

Most people with RET-mutant medullary thyroid cancer would have cabozantinib, and most people with RET fusion-positive thyroid cancer would have lenvatinib, so these are the most relevant comparators. A small number of people are expected to have sorafenib because they cannot tolerate lenvatinib. Because most people have cabozantinib, lenvatinib or sorafenib, these are the treatment options modelled in the template.

Selpercatinib and the comparators are oral treatments.

Financial resource impact (cash items)

The company has a commercial arrangement. This makes selpercatinib available to the NHS with a discount.

Users can input the confidential price of selpercatinib and amend other variables in the resource impact template.

The payment mechanism for the technology is determined by the responsible commissioner and depends on the technology being classified as high cost.

For further analysis or to calculate the financial impact of cash items, see the resource impact template.

Capacity impact

The technology does not need additional infrastructure to be put in place and there are no anticipated implementation issues. Testing of RET alteration status for people with thyroid cancer is already established in these patient cohorts; these tests are included in the national cancer genomic test directory.

For further analysis or to calculate the financial capacity impact from a commissioner (national) and provider (local) perspective, see the resource impact template. Please note that the average cycle lengths will need to be input into cells E59 to I63 on the inputs and eligible population worksheet.

Key information

Table 2 shows the key information for commissioning.

Table 2 Key information for commissioning

Time from publication to routine commissioning funding	90 days

Programme budgeting category	Cancers and tumours, 02X
Commissioner	NHS England
Providers	NHS hospital trusts
Pathway position	1. As an option for treating advanced RET-mutant medullary thyroid cancer in people 12 years and older. 2. As an option for treating advanced RET fusion-positive thyroid cancer that is refractory to radioactive iodine (if radioactive iodine is appropriate) in people 12 years and older.

About this resource impact summary report

This resource impact summary report accompanies NICE's technology appraisal guidance on selpercatinib for advanced thyroid cancer with RET alterations untreated with a targeted cancer drug in people 12 years and over and should be read with it. See terms and conditions on the NICE website.

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