

Putting NICE guidance into practice

Resource impact report: Tucatinib with trastuzumab and capecitabine for treating HER2-positive advanced breast cancer after 2 or more anti-HER2 therapies (TA786)

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Summary

NICE has recommended tucatinib with trastuzumab and capecitabine as an option for treating HER2-positive locally advanced or metastatic breast cancer in adults after 2 or more anti-HER2 treatment regimens only if the company provides tucatinib according to the commercial arrangement.

We estimate that:

- 380 people with HER2-positive locally advanced or metastatic breast cancer are eligible for treatment with tucatinib with trastuzumab and capecitabine in third-line treatment and 190 in fourth-line treatment.
- This gives a total eligible population of around 570 people per year in England.
- 170 people in third-line and 90 people in fourth-line will receive tucatinib with trastuzumab and capecitabine from year 3 onwards once uptake has reached 45% as shown in table 1.

Table 1 Estimated number of people in England receiving tucatinib

	2022/23	2023/24	2024/25	2025/26	2026/27
Uptake rate for tucatinib with trastuzumab and capecitabine (%)	10%	20%	45%	45%	45%
Population receiving tucatinib with trastuzumab and capecitabine each year (third-line)	40	80	170	170	170
Population receiving tucatinib with trastuzumab and capecitabine each year (fourth-line)	20	40	90	90	90
Total number of people receiving tucatinib with trastuzumab and capecitabine each year	60	120	260	260	260

This report is supported by a local resource impact template because the list price of tucatinib has a discount that is commercial in confidence. The

discounted price of tucatinib 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 Tucatinib

- 1.1 NICE has recommended tucatinib with trastuzumab and capecitabine as an option for treating HER2-positive locally advanced or metastatic breast cancer in adults after 2 or more anti-HER2 treatment regimens only if the company provides tucatinib according to the commercial arrangement.
- 1.2 Current practice is treatment with either trastuzumab deruxtecan (available through the cancer drugs fund), eribulin, vinorelbine or capecitabine. Tucatinib with trastuzumab and capecitabine represents an additional treatment option for this population.

2 Resource impact of the guidance

- 2.1 We estimate that:
- 380 people with HER2-positive locally advanced or metastatic breast cancer are eligible for treatment with tucatinib with trastuzumab and capecitabine in third-line treatment and 190 in fourth-line treatment.
 - This gives a total eligible population of around 570 people per year in England.
 - 170 people in third-line and 90 people in fourth-line will receive tucatinib with trastuzumab and capecitabine from year 3 onwards once uptake has reached 45% as shown in table 2.
- 2.2 The current treatment and future uptake figure assumptions are based on clinical expert opinion and are shown in the resource impact template. Table 2 shows the number of people in England who are estimated to receive tucatinib with trastuzumab and capecitabine by financial year.

Table 2 Estimated number of people receiving tucatinib with trastuzumab and capecitabine using NICE assumptions

	2022/23	2023/24	2024/25	2025/26	2026/27
Uptake rate for tucatinib with trastuzumab and capecitabine (%)	10%	20%	45%	45%	45%
Population receiving tucatinib with trastuzumab and capecitabine each year (third-line)	40	80	170	170	170
Population receiving tucatinib with trastuzumab and capecitabine each year (fourth-line)	20	40	90	90	90
Total number of people receiving tucatinib with trastuzumab and capecitabine each year	60	120	260	260	260

2.3 This report is supported by a local resource impact template. Tucatinib has an agreed patient access scheme which makes it available with a commercial-in-confidence discount to the list price. The discounted price of tucatinib can be put into the template and other variables may be amended.

3 Implications for commissioners

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

3.2 Trastuzumab deruxtecan, one of the comparator technologies, is currently available in the cancer drugs fund and so any movement from trastuzumab deruxtecan to tucatinib with trastuzumab and capecitabine will increase costs to routine commissioning without any reduction in costs for routine commissioning for the comparator. Additionally, if trastuzumab deruxtecan does not pass

into routine commissioning following review in the cancer drugs fund, use of tucatinib with trastuzumab and capecitabine will increase as the main comparator will be no longer available.

- 3.3 Tucatinib with trastuzumab and capecitabine falls within the programme budgeting category 02F, cancers and tumours, breast.

4 How we estimated the resource impact

The population

- 4.1 There are around 48,400 breast cancer diagnoses per year in England, of these around 2,700 (5.6%) will have advanced or metastatic disease on diagnosis.
- 4.2 Of the 45,700 people with early disease on diagnosis, around 7,800 (17%) will progress to advanced or metastatic disease. This gives a total number of people with advanced or metastatic disease of 10,500 per year.
- 4.3 Around 1,500 (14%) will have HER2-positive disease of which 100% will have a first-line treatment. Of people who have a first-line treatment, around 780 (53%) will have a second-line treatment and of these around 380 (49%) will go on to have a third-line treatment and be eligible for treatment with tucatinib with trastuzumab and capecitabine. Of these, around 190 (50%) will go on to have a fourth-line treatment. This gives a total eligible population of around 570 people per year in England.

Table 3 Number of people eligible for treatment in England

	Population	Proportion of previous row (%)	Number of people
	Total population		54,786,327
	Adult population		43,108,471
a	Incidence of breast cancer ¹	0.11	48,387
b	Proportion of people with advanced or metastatic breast cancer on diagnosis ²	5.6	2,700
c	Proportion of people with early disease on diagnosis ²	94.4 of (a)	45,700
d	Proportion of people who progress to advanced or metastatic disease ²	17	7,800
e	Total number of people with advanced or metastatic disease ²	b+c	10,500
f	Proportion of people with HER2 positive disease ³	18	1,500
g	People receiving first line therapy ²	100	1,500
h	People receiving second line therapy ²	53	780
i	People receiving third-line and therefore eligible for tucatinib with trastuzumab and capecitabine ²	49	380
j	People receiving fourth-line and therefore eligible for tucatinib with trastuzumab and capecitabine ²	50	190
k	Total number of people eligible for treatment with tucatinib with trastuzumab and capecitabine ²	i+j	570
l	Total number of people estimated to receive tucatinib with trastuzumab and capecitabine each year from year 3	45	260
¹ Source: Cancer Registration Statistics, England 2019 ICD C50 ² Source: Company submission ³ Source: https://seer.cancer.gov/statfacts/html/breast-subtypes.html			

Assumptions

4.4 The resource impact template assumes that:

- Tucatinib, trastuzumab and capecitabine are given for 10 cycles on average
- Vinorelbine and eribulin are given for 6 cycles on average

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- Trastuzumab deruxtecan is given for 17 cycles on average
- Oral treatment administration cost is £132 based on HRG SB11Z deliver exclusively oral chemotherapy
- Subcutaneous and intravenous treatment administration is costed at £165 based on HRG SB12Z deliver simple parenteral chemotherapy at first attendance
- When multiple drugs are given as part of a single regimen, the administration cost is based on the most expensive type.

About this resource impact report

This resource impact report accompanies the NICE guidance on tucatinib with trastuzumab and capecitabine for treating HER2-positive advanced breast cancer after 2 or more anti-HER2 therapies and should be read with it.

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