NICE National Institute for Health and Care Excellence

Putting NICE guidance into practice

Resource impact report:
Trastuzumab emtansine for adjuvant treatment of HER2-positive early breast cancer (TA632)

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Summary

NICE has recommended trastuzumab emtansine as an additional adjuvant treatment of HER2 positive, invasive breast cancer.

We estimate that:

- 840 people with HER2 positive breast cancer are eligible for treatment with trastuzumab emtansine.
- 750 people will have trastuzumab emtansine from year 2 onwards once uptake has reached 90% as shown in table 1.

Table 1 Estimated number of people in England having trastuzumab emtansine

	2020/21	2021/22	2022/23	2023/24	2024/25
Population having trastuzumab emtansine each year	375	750	750	750	750

This report is supported by a local resource impact template because the list price of trastuzumab emtansine has a discount that is commercial in confidence. The discounted price of trastuzumab emtansine can be put into the template and other variables including other drug prices that may be available at discounts may be amended.

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

1 Trastuzumab emtansine

1.1 NICE has recommended trastuzumab emtansine as an option for the adjuvant treatment of human epidermal growth factor receptor 2 (HER2)-positive early breast cancer in adults who have residual invasive disease in the breast or lymph nodes after neoadjuvant taxane-based and HER2-targeted therapy.

1.2 In early HER2-positive breast cancer, neoadjuvant treatment may be used to eradicate or reduce tumour size before surgery. NICE currently recommends pertuzumab with trastuzumab and chemotherapy as neoadjuvant treatment for HER2-positive, locally advanced, inflammatory or early breast cancer at high risk of recurrence. People who have residual invasive disease after neoadjuvant therapy are considered to be at higher risk of disease recurrence than those who have a pathological complete response (that is, no residual invasive disease was found during surgery).

1.3 Adjuvant treatment can be used following surgery, to reduce the risk of recurrence. NICE currently recommends pertuzumab with trastuzumab and chemotherapy for the adjuvant treatment of HER2-positive breast cancer in adults who have lymph node positive disease. People with lymph node negative disease are currently offered adjuvant trastuzumab, in line with NICE's guidance on early breast cancer.

1.4 Trastuzumab emtansine is a new adjuvant treatment option for HER2-positive early breast cancer for people who have residual invasive disease after neoadjuvant therarpy. It can be offered to people with both node-positive and node-negative disease.

2 Resource impact of the guidance

2.1 We estimate that:

- 840 people with HER2 positive, early invasive breast cancer are eligible for treatment with trastuzumab emtansine each year. 750 people will have trastuzumab emtansine from year 2 onwards once uptake has reached 90%.

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

Table 2 Estimated number of people having trastuzumab emtansine using NICE assumptions

	2020/21	2021/22	2022/23	2023/24	2024/25
Population having trastuzumab emtansine each year	375	750	750	750	750

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

2.4 Trastuzumab emtansine is administered by IV infusion. For people who would otherwise be treated with trastuzumab sub-cutaneous injection being treated with trastuzumab emtansine will require increased administration cost and time.

Savings and benefits

2.5 Trastuzumab emtansine increases the amount of time following surgery before a person's disease returns compared with trastuzumab or pertuzumab with trastuzumab.

3 Implications for commissioners

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

3.2 Trastuzumab emtansine 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 46,100 people diagnosed with breast cancer each year and of these around 6,600 people with have HER2-positive disease. Around 2,600 people (39%) with HER2-positive disease will have a neoadjuvant treatment prior to surgery. Of people with HER2-positive disease who commence treatment with a neoadjuvant regimen, around 840 people a year will still have residual invasive disease following surgery.

Table 3 Number of people eligible for treatment in England

	Population	Proportion of previous row (%)	Number of people
a	Total population		55,977,178
b	Incidence of breast cancer[1]	0.08	46,100
c	Proportion of people with HER2 positive breast cancer[2]	14.3	6,600
d	Proportion of people who commence treatment with neoadjuvant treatment	39	2,600
e	Proportion of people who have neoadjuvant treatment who have node-negative disease	26 of d	670
f	Proportion of people with node-negative disease who have residual invasive disease after neoadjuvant treatment	28	190
g	Proportion of people who have neoadjuvant treatment who have node-positive disease	74 of d	1,900
h	Proportion of people with node-positive disease who have residual invasive disease after neoadjuvant treatment	34	650
i	Total number of people eligible for treatment with trastuzumab emtansine	f+h	840
j	Total number of people estimated to have trastuzumab emtansine each year from year 2	90	750
	[1] Source: https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/cancerregistrationstatisticsengland/previousReleases [2] Source: NICE TA424 and TA569		

About this resource impact report

This resource impact report accompanies the NICE guidance on Trastuzumab emtansine for adjuvant treatment of HER2-positive early breast cancer and should be read with it.