

## Putting NICE guidance into practice

### **Resource impact report: Trastuzumab emtansine for treating HER2 positive advanced breast cancer after trastuzumab and a taxane (TA458)**

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## Summary

NICE has recommended trastuzumab emtansine as an option for treating human epidermal growth factor receptor 2 (HER2) positive advanced breast cancer who previously received trastuzumab and a taxane.

We estimate that around 820 people with HER2 positive advanced breast cancer who previously received trastuzumab and a taxane are eligible for treatment with trastuzumab emtansine. Based on Cancer Drugs Fund (CDF) records, around 720 people currently have trastuzumab emtansine treatment. Uptake is not expected to change as a result of trastuzumab emtansine moving from the CDF into routine commissioning.

This report is supported by a local resource impact template because of the commercial access agreement that is commercial in confidence. The agreed price of trastuzumab emtansine 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 Introduction

- 1.1 This report looks at the resource impact of implementing the NICE guidance on trastuzumab emtansine as an option for treating human epidermal growth factor receptor 2 (HER2)-positive advanced breast cancer in adults after trastuzumab and a taxane in England.
- 1.2 The [guidance](#) states that trastuzumab emtansine is recommended, within its marketing authorisation, as an option for treating HER2-positive, unresectable, locally advanced or metastatic breast cancer in adults who previously received trastuzumab and a taxane, separately or in combination. Patients should have either received prior therapy for locally advanced or metastatic disease or developed disease recurrence during or within 6 months of completing adjuvant therapy. Trastuzumab emtansine is recommended only if the company provides it in line with the commercial access agreement with NHS England.
- 1.3 NHS England and Roche have agreed that trastuzumab emtansine will be available to the NHS with a commercial access agreement. It is the responsibility of the company to communicate details of the agreement to the relevant NHS organisations. Any enquiries from NHS organisations about the commercial access agreement should be directed to [global.pas@roche.com](mailto:global.pas@roche.com).
- 1.4 This report is supported by a resource impact template. The template aims to help organisations in England, Wales and Northern Ireland plan for the financial implications of implementing the NICE guidance by amending the variables.
- 1.5 This technology is commissioned by NHS England. Providers are NHS hospital trusts.

## **2 Background and epidemiology of breast cancer**

- 2.1 There were approximately 46,100 people diagnosed with breast cancer in England in 2015 ([Office for National Statistics, 2017](#)).
- 2.2 Based on the [National Cancer Registration and Analysis Service](#) approximately 44% of people presenting with breast cancer have early breast cancer; 50% present with locally advanced breast cancer and 6% with metastatic breast cancer. It is estimated that around 35% of those presenting with early or localised breast cancer will develop advanced breast cancer after diagnosis.
- 2.3 Table 1 shows details of the population eligible for trastuzumab emtansine.

**Table 1 Number of people eligible for treatment with trastuzumab emtansine in England**

Population	Percentage (%)	Number of people
Total adult population in England		43,108,471
Number of breast cancer cases registered in England in 2015 <sup>a</sup>	0.11	46,100
People with early breast cancer (44% x 46,100) <sup>b</sup>	44	20,300
People with locally advanced or metastatic breast cancer (56% x 46,100) <sup>b</sup>	56	25,800
People with early breast cancer who progress to metastatic disease (35% x 20,300) <sup>c</sup>	35	7,100
<b>Total number of people with locally advanced or metastatic breast cancer (25,800 + 7,100)</b>		<b>32,900</b>
People with unresectable, locally advanced or metastatic breast cancer <sup>d</sup>	26	8,600
People with HER2-positive unresectable, locally advanced or metastatic breast cancer <sup>e</sup>	20	1,700
People with HER2-positive, unresectable, locally advanced or metastatic breast cancer eligible for first line treatment <sup>f</sup>	74	1,300
People with HER2-positive, unresectable, locally advanced or metastatic breast cancer previously treated with trastuzumab and a taxane and eligible for second line treatment <sup>f</sup>	65	820
People estimated to have trastuzumab emtansine <sup>g</sup>	88	720
<p>a. Cancer Registration Statistics, England, 2015. <a href="#">Office for National statistics</a></p> <p>b. Breast cancer breakdown by stage 2015. Available from: <a href="http://www.ncin.org.uk/publications/survival_by_stage">http://www.ncin.org.uk/publications/survival_by_stage</a></p> <p>c. Breast Cancer Care (2008) <a href="#">Improving the care of people with secondary breast cancer: Final report</a>.</p> <p>d. <a href="#">Major resections by cancer site, in England; 2006-2010</a>. National Cancer Intelligence Network.</p> <p>e. Variation in breast cancer outcomes with age and deprivation. <a href="#">Second all breast cancer report</a>. National cancer intelligence network</p> <p>f. Original company submission, December 2013.</p> <p>g. NHS England. Cancer Drugs Fund records of notifications and individual requests. See <a href="#">resource impact template</a> for more details.</p>		

2.4 Therefore it is estimated that approximately 820 people with HER2-positive advanced breast cancer who previously received

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trastuzumab and a taxane are eligible for treatment with trastuzumab emtansine each year.

2.5 It is estimated that 720 people will have treatment with trastuzumab emtansine through routine commissioning once the guidance is published.

### **3 Assumptions made**

3.1 The resource impact template makes the following assumptions:

- The current treatment and future uptake figure assumptions are based on the CDF activity and are shown in the [resource impact template](#).
- The current number of people having trastuzumab emtansine is not expected to change when it moves from the CDF into routine commissioning.
- The comparator treatment is trastuzumab plus capecitabine.
- The average length of treatment is 14.5 months equivalent to 21 3-weekly cycles of treatment.

### **4 Resource impact**

4.1 Trastuzumab emtansine will be available to the NHS with a commercial access agreement. The agreed price of treatment with trastuzumab emtansine can be put into the template to calculate the resource impact of the guidance.

4.2 The template enables users to calculate the resource impact of trastuzumab emtansine transferring from the CDF into routine commissioning at a national and local level.

### **5 Savings and benefits**

5.1 The committee heard from the clinical experts that trastuzumab emtansine improves overall survival by several months compared

with other HER2-positive directed treatments. It is also particularly well tolerated, with fewer side effects compared with other treatments.

- 5.2 The committee noted that people whose disease responds well to trastuzumab emtansine have improved quality of life as well as longer life.

## **6 Implications for commissioners**

- 6.1 The technology will be available through routine commissioning and there will be a resource impact for specialised commissioning. Trastuzumab emtansine will initially be funded from the CDF until 90 days following publication of final guidance at which point it will go into routine commissioning.
- 6.2 Trastuzumab emtansine for treating human epidermal growth factor receptor 2 positive, unresectable, locally advanced or metastatic breast cancer in adults after trastuzumab and a taxane falls within the programme budgeting category 02F cancer, breast.

## About this resource impact report

This resource impact report accompanies the NICE guidance on [trastuzumab emtansine for treating human epidermal growth factor receptor 2 positive advanced breast cancer in adults after trastuzumab and a taxane](#) and should be read in conjunction with it. See [terms and conditions](#) on the NICE website.

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