

## European Breast Cancer Conference (Virtual) 2020

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**Title:** Surgery of the primary tumour in women with metastatic breast cancer at diagnosis in England and Wales – how do treatment rates vary at an individual and regional level?

### Background:

Surgery to the primary tumour in women with metastatic breast cancer (MBC) has traditionally been reserved for palliative purposes, and European guidelines suggest it should be performed on an individualised basis<sup>1</sup>. A lack of consensus on the effectiveness of a procedure can lead to treatment variation in clinical practice. We examined what proportion of women with MBC aged 50+yrs received surgery to the primary tumour, and explored what patient and clinical characteristics influence receipt of surgery, as part of the National Audit of Breast Cancer in Older Patients (NABCOP).

### Methods:

Details of the NABCOP are available at [www.nabcop.org.uk](http://www.nabcop.org.uk). Data on women aged 50+yrs newly diagnosed with MBC at diagnosis between January 2014 and December 2018 in England and Wales were obtained from national cancer registry datasets linked to routine hospital episodes. Receipt of surgery up to 3 years from diagnosis was examined using Kaplan Meier estimates, both nationally and between Cancer Alliances. The relationship between patient/tumour factors and time to surgery was analysed using log rank tests and a flexible parametric regression model (FPM).

### Results:

Between 2014 and 2018, 7316 women aged 50+yrs with MBC at diagnosis were identified. Overall, 18.7% women had surgery to the primary tumour within 1 year from diagnosis. Having surgery at 1 year was more common among younger women (50-59yrs vs 80+yrs: 29.8% vs 8.6%, adjusted HR 1.79), those with T1/T2 tumours (T1/T2 vs T3/T4: 33.1% vs 20.8%, adjusted HR 1.72), and positive nodal stage (N0 vs N+: 19.3% vs 29.1%, adjusted HR 1.54). Rates of surgery within 1 year from diagnosis reduced over time, from 23.7% in 2014 to 15.7% in 2018, but to a greater degree among women aged 50-69yrs (34.8% in 2014 to 21.1% in 2018) compared with women aged 70+yrs: 15.6% to 11.5%. Overall rates of surgery varied from 11.6% to 32.2% between the 20 Cancer Alliance/regions across England and Wales.

### Conclusions:

Almost 20% of women aged 50+yrs with MBC at diagnosis received breast surgery within 1 year from diagnosis, but this varied between regions in England and Wales, and the use of surgery has decreased in recent years. Research is required to understand why treatment variation exists as well as to generate better evidence on the value of surgery in patients with MBC.

### References:

1. Cardoso F, Senkus E, Costa A, Papadopoulos E, Aapro M, André F, et al. 4th ESO-ESMO International Consensus Guidelines for Advanced Breast Cancer (ABC 4)<sup>†</sup>. *Ann Oncol*. 2018;29(8):1634-57.

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