



# Christie Clinical Outcomes

## Breast Cancer

### Christie Patients

Around 2,500 patients are referred to the Christie each year with breast cancer. The average age of breast patients at the Christie is 63 years (Fig. 1).

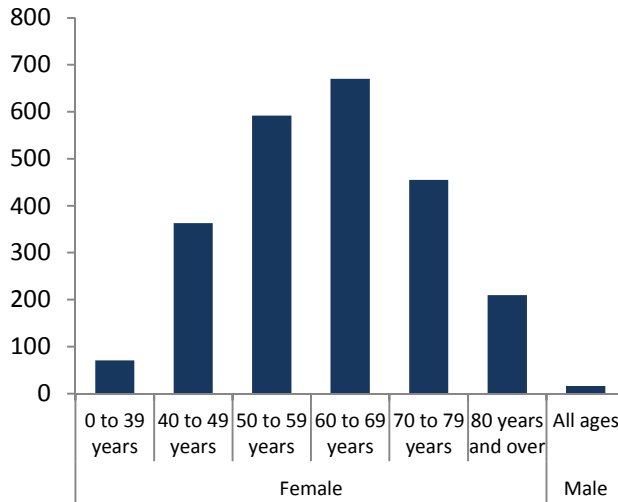


Fig. 1. Number of new breast patients in 2013

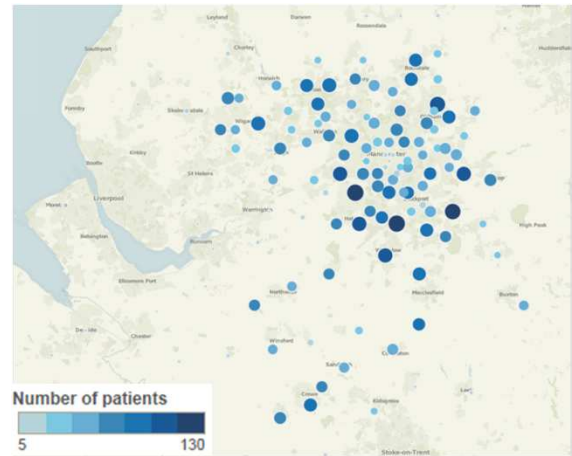
### Incidence

The national incidence for breast cancer was estimated at 160 new cases per 100,000 female population in 2012. Greater Manchester and Cheshire East had an estimated female population of 1.5M in 2012 that translates to 2,500 expected new cases of breast cancer per year.

To determine the efficacy of some treatment options, breast cancer can be sub-divided into groups based on presence or absence of the cells having hormone-receptors and/or protein-receptors. Hormone-receptors can be further sub-divided into oestrogen-receptors (ER) and progesterone-receptors (PR). The protein-receptor of most significance for breast cancer is human epidermal growth factor 2 (HER2). The relative incidence of these types is shown in Fig. 2.

	ER Negative		ER Positive		Grand Total
	PR Negative	PR Positive	PR Negative	PR Positive	
HER2 Negative	12%	1%	10%	60%	83%
HER2 Positive	6%	0%	4%	8%	17%
<b>Grand Total</b>	<b>17%</b>	<b>1%</b>	<b>13%</b>	<b>68%</b>	<b>100%</b>

Fig. 2. Incidence by receptor type in 2013



Map 1. Catchment area for 98% of Christie patients. Size and depth of colour is relative to number of patients from the same area.

The majority of Christie patients are residents of the North West of England and in particular around the Greater Manchester and Cheshire East regions (Map 1). A very small number of patients travel from outside the NW for treatment.

### Diagnosis

Disease stage is a way of describing the size and spread of cancer. Stage 0 and I are small cancers which have not spread, stage IV is where the cancer has spread to other parts of the body. Fig. 3 shows that almost three quarters of breast patients that come to the Christie for treatment have early stage disease.

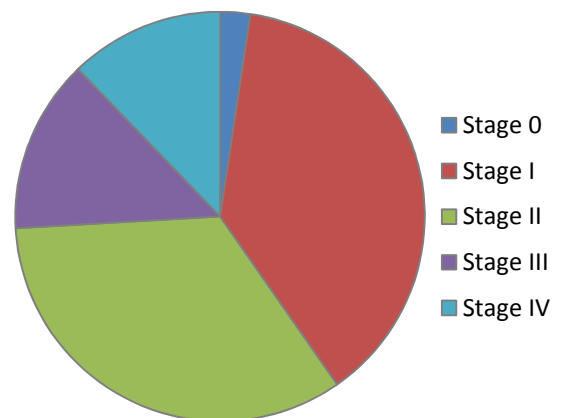


Fig. 3. Disease stage

## Christie Treatment

The type of treatment a patient will receive at the Christie will depend upon many factors which the clinician will discuss with the patient. The discussion will include the stage of disease at presentation (Fig 4), other health problems that the patient has at the time of treatment (comorbidities) and the patient's ability to cope with the potential effects of the treatment.

87% of Christie breast patients are referred for curative treatment. Of those receiving treatment with curative intent, 91% are referred for chemotherapy or radiotherapy prior to or following surgery at another hospital. The remainder patients receive chemotherapy or radiotherapy as their first treatment.

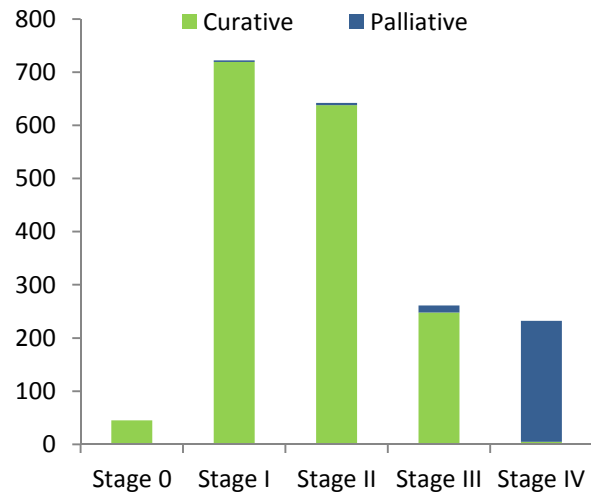


Fig. 4. Treatment intent by stages of cancer

## Comorbidities

Comorbidities are illnesses and conditions that patients have (other than cancer) such as heart disease and respiratory problems that can impact on their treatment and likely outcomes. All Christie patients are regularly assessed for comorbidities on a scale of no comorbidities to severe comorbidities. Ninety percent of Christie breast patients have either no or only mild comorbidities (Fig. 5). The most common comorbidity among breast patients is cardiovascular.

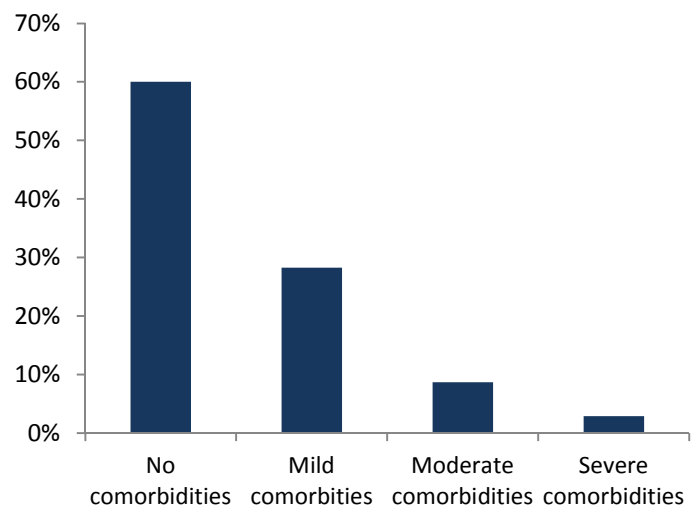


Fig. 5. Number of patients with Comorbidities in 2013

## Survival Outcomes

Survival outcomes are also dependent on stage of disease (Fig. 6). One year overall survival for all breast patients treated at the Christie is 93% measured from the date first seen at the Christie.

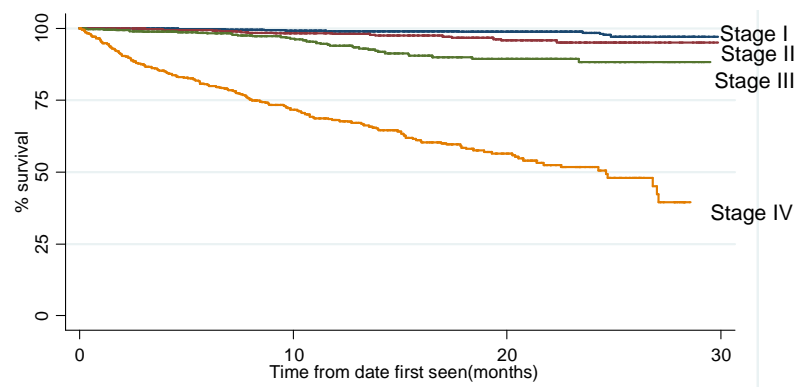


Fig. 6. Survival estimates for breast patients diagnosed with different stages of cancer