

Breast Cancer Service



The Christie **NHS**
NHS Foundation Trust

Breast Cancer Service





Operational Structure

We are a multi-disciplinary group working together to give non-surgical cancer care to patients with early and advanced breast cancer.

The team includes medical and clinical oncology staff, nurse clinicians, breast care nurse specialists, research nurses, pharmacy staff, physiotherapy and lymphoedema specialists, occupational therapists, research support staff and clinical outcomes staff.

The Christie team of medical and clinical oncologists work with the Greater Manchester and Cheshire breast cancer units who provide diagnostic (radiology and pathology) and surgical services. The aim is to give patients access to clinical care as close to their home as possible. This involves:

- An advice service through working in the weekly breast unit multi-disciplinary meetings
- A clinical consultation service
- Chemotherapy services
- Radiotherapy services
- Links with acute oncology services
- Giving all patients access to relevant clinical trials
- Provision of breast group guidelines, updated annually, to ensure that patients have access to a uniform standard of care, in the units we serve.

Greater Manchester and Cheshire Breast Units Served

Personnel

South Manchester: MDT advice

Consultants (Medical Oncology)	Dr Andrew Wardley Dr Anne Armstrong Dr Sacha Howell
Clinical Oncology	Dr Brian Magee

Bolton: MDT advice, OP clinics, chemotherapy

Consultants (Clinical Oncology)	Dr Richard Welch Dr Carmel Anandadas
--	---

Wigan: MDT advice, OP clinics, chemotherapy

Consultants (Medical Oncology)	Dr Elena Takeuchi
Clinical Oncology	Dr Carmel Anandadas



Pennine Acute (North Manchester General and Oldham): MDT advice, OP clinics, chemotherapy, radiotherapy

Consultants (Clinical Oncology)	Dr Juliette Loncaster Dr Vivek Misra Dr Helen Lander
--	--

Macclesfield: MDT advice, OP clinics, chemotherapy

Consultants (Clinical Oncology)	Dr Lisa Barraclough
--	---------------------

Leighton: MDT advice, OP clinics, chemotherapy

Consultants (Medical Oncology)	Dr Laura Horsley
Clinical Oncology	Dr Paul Burt

Stepping Hill: MDT advice, OP clinics, chemotherapy

Consultants (Clinical Oncology)	Dr Abbasi Chittalia
--	---------------------

Tameside: MDT advice, OP clinics, chemotherapy

Consultants (Clinical Oncology)	Dr Lubna Bhatt
--	----------------

Salford: MDT advice, OP clinics, chemotherapy, radiotherapy

Consultants (Medical Oncology)	Mr Gregory Wilson
Clinical Oncology	Dr Brian Magee

Activity

In 2013/2014 the group saw 2554 patients, mainly referred from the Greater Manchester and Cheshire area.

1137 patients were referred for radiotherapy, 701 patients were referred for chemotherapy

Service Development 2013/14

Chemotherapy services are provided at the main Christie site, at a number of the breast cancer units, and via the Christie mobile chemotherapy service. Specialist pharmacy staff (R Duncombe, S Frank, S Stent) advise on systemic therapies and provide chemotherapy services.



The Christie main site offers a number of out-patient clinics staffed by consultant medical and clinical oncologists, and with specialist grade staff (Y McCabe) and nurse clinicians (B Corke, K Chidlow)

The adjuvant Herceptin (trastuzumab) service is a nurse led service (H Mitchell, D Morrissey) that co-ordinates the treatment of patients needing adjuvant Herceptin. Many patients can be treated in their own homes and the team co-ordinates the cardiac assessments needed during treatment.

The breast care nurse service (S Foy, R Fox, C Gaskell, B Daniel) provides advice and support to patients referred to the Christie main site. They link with their colleagues in the breast units. The secondary breast cancer pledge is that all patients with newly diagnosed breast cancer have access to specialist breast care nursing advice.

Psychological medicine advice: the team works closely with colleagues in psychological medicine (T Hawthorne and others)

Palliative medicine service: there is a specific link to the Christie palliative medicine service with staff working in oncology out-patient clinics (T Coleby and others)

Lymphoedema and re-habilitation services; patients with lymphoedema, shoulder and arm problems have access to specialist lymphoedema practitioner, physiotherapy and occupational therapy advice (P Williams, J Kenyon, T Eckersley.)

Radiotherapy services for breast patients are provided at the Christie main site and the 2 satellite units at Oldham and Salford

[Outcomes – Click Here](#)





Research

Clinical Trial Activity

The Christie Clinical Trial Research team consistently has broad portfolio of Phase I-III Clinical Trials open at any point in time. We are frequently among the lead UK and International Recruiters in the studies we open. We run 2 dedicated Research Clinics to ensure optimal management of patients on investigational studies.

Trials Currently Open

Pre-Operative

EPHOS-B: Effect of Perioperative AntiHER-2 therapy on Early Breast Cancer Study – Biological phase

Adjuvant

OPTIMA: Personalised Treatment of Breast Cancer

A randomized, Multicenter, open-label, Phase III trial comparing Trastuzumab plus Pertuzumab plus a Taxane following Anthracyclines versus trastuzumab emtansine plus Pertuzumab following Anthracyclines as Adjuvant Therapy in Patients with Operable Her-2 Positive Primary Breast Cancer

Persephone: Duration of Trastuzumab with Chemotherapy in Patients with Early Breast Cancer: Six Months versus Twelve

KAITLIN: A randomized, multicenter, Open-label Phase III study to evaluate the Efficacy and Safety of Trastuzumab Emtansine versus Trastuzumab as Adjuvant Therapy for Patients with Her2-Positive Primary Breast Cancer who have residual Tumour Present Pathologically in the Breast or Axillary Lymph Nodes Following Pre-Operative Therapy

A study to identify biomarkers which offer a lead interval between predicted relapse and overt disease in post-operative, post-treatment breast cancer patients



Metastatic

ASTELLAS: A Phase 2, Multicenter, Open-label Study to Assess the Efficacy and Safety of Enzalutamide with Trastuzumab in Subjects with HER2+ AR+ Metastatic or Locally Advanced Breast Cancer

BEECH: A Phase I/II, Multicentre, Study Comprising a Safety Run-In of AZD5363 when Combined with Paclitaxel in Patients with Advanced or Metastatic Breast Cancer; Followed by a Randomised Expansion of AZD5363 when Combined with Paclitaxel vs. Paclitaxel plus Placebo in Patients with ER-Positive Advanced or Metastatic Breast Cancer, Stratified by PIK3CA Mutation Status.

BELLE3: A phase III randomized, double blind, placebo controlled study of BKM120 with fulvestrant, in postmenopausal

women with hormone receptor-positive HER2-negative AI treated, locally advanced or metastatic breast cancer who progressed on or after mTOR inhibitor based treatment

BIOMARIN: A Phase 3, Open-Label, Randomized, Parallel, 2-Arm, Multi-Center Study of BMN 673 versus Physician's Choice in Germline BRCA Mutation Subjects with Locally Advanced and/or Metastatic Breast Cancer, Who Have Received No More than 2 Prior Chemotherapy Regimens for Metastatic Disease

FAKTION: A phase 1b/2 randomised placebo controlled trial of fulvestrant +/- AZD5363 in postmenopausal women with advanced breast cancer previously treated with a third generation aromatase inhibitor.

OLYMPIAD: A Phase III, Open Label, Randomised, Controlled, Multi-centre Study to assess the efficacy and safety of Olaparib Monotherapy versus Physician's Choice Chemotherapy in the Treatment of Metastatic Breast Cancer Patients with germline BRCA1/2 Mutations

PAKT: A Phase II, randomized, placebo-controlled study of the AKT inhibitor AZD5363 in combination with paclitaxel in triple-negative advanced or metastatic breast cancer

TNACITY: A Phase 2/3, Multi-Centre, Open-Label, Randomized study of Weekly nab-Paclitaxel in Combination with Gemcitabine or Carboplatin Compared to Gemcitabine/Carboplatin as First Line Treatment in Subjects with ER, PR and Her2 negative Metastatic Breast Cancer



Radiotherapy

IMPORT HIGH: Intensity Modulated and Partial Organ RadioTherapy

Other

A study of the barriers to early presentation and diagnosis with breast cancer in black African, black Caribbean and white women

Other Research Activity

We have close collaborations with other researchers in the University of Manchester. Dr Armstrong, Dr Howell and Dr Wardley are Principal Investigators within the Manchester Breast Centre which aims to enhance research into breast disease through fostering collaborations across local experts. Dr Armstrong has research interests in immunotherapeutic approaches to breast cancer as well as fertility concerns after a diagnosis of breast cancer. Dr Howell's laboratory research focus is on endocrine therapy where he is investigating novel antagonists of estrogen and progesterone receptor signalling in pre-clinical models.

Publications

Armstrong AC, Evans GD. Management of women at high risk of breast cancer. *BMJ*. 2014 Apr 28;348:g2756.

André F, O'Regan R, Ozguroglu M, Toi M, Xu B, Jerusalem G, Masuda N, Wilks S, Arena F, Isaacs C, Yap YS, Papai Z, Lang I, Armstrong A, Lerzo G, White M, ShenK, Litton J, Chen D, Zhang Y, Ali S, Taran T, Gianni L. Everolimus for women with trastuzumab-resistant, HER2-positive, advanced breast cancer (BOLERO-3): a randomised, double-blind, placebo-controlled phase 3 trial. *Lancet Oncol*. 2014 May;15(6):580-91



Morgan A, Fenlon DR; National Cancer Research Institute Clinical Studies Group Breast Cancer Working Party on Symptom Management. Is it me or is it hot in here? A plea for more research into hot flushes. *Clin Oncol (R Coll Radiol)*. 2013 Nov;25(11):681-3

Lee RJ, Armstrong AC, Wardley AM. Emerging targeted combinations in the management of breast cancer. *Breast Cancer*. 2013 Aug 13;5:61-72

Eccles SA, Aboagye EO, Ali S, Anderson AS, Armes J, Berditchevski F, Blaydes JP, Brennan K, Brown NJ, Bryant HE, Bundred NJ, Burchell JM, Campbell AM, Carroll JS, Clarke RB, Coles CE, Cook GJ, Cox A, Curtin NJ, Dekker LV, Silva Idos S, Duffy SW, Easton DF, Eccles DM, Edwards DR, Edwards J, Evans D, Fenlon DF, Flanagan JM, Foster C, Gallagher WM, Garcia-Closas M, Gee JM, Gescher AJ, Goh V, Groves AM, Harvey AJ, Harvie M, Hennessy BT, Hiscox S, Holen I, Howell SJ, Howell A, Hubbard G, Hulbert-Williams N, Hunter MS, Jasani B, Jones LJ, Key TJ, Kirwan CC, Kong A, Kunkler IH, Langdon SP, Leach MO, Mann DJ, Marshall JF, Martin L, Martin SG, Macdougall JE, Miles DW, Miller WR, Morris JR, Moss SM, Mullan P, Natrajan R, O'Connor JP, O'Connor R, Palmieri C, Pharoah PD, Rakha EA, Reed E, Robinson SP, Sahai E, Saxton JM, Schmid P, Smalley MJ, Speirs V, Stein R, Stingl J, Streuli CH, Tutt AN, Velikova G, Walker RA, Watson CJ, Williams KJ, Young LS, Thompson AM. Critical research gaps and translational priorities for the successful prevention and treatment of breast cancer. *Breast Cancer Res*. 2013 Oct 1;15(5):R92.

Singh JK, Simões BM, Howell SJ, Farnie G, Clarke RB. Recent advances reveal IL-8 signaling as a potential key to targeting breast cancer stem cells. *Breast Cancer Res*. 2013;15(4):210

Palmieri C, Patten DK, Januszewski A, Zucchini G, Howell SJ. Breast cancer: current and future endocrine therapies. *Mol Cell Endocrinol*. 2014 Jan 25;382(1):695-723.

Harrison H, Simões BM, Rogerson L, Howell SJ, Landberg G, Clarke RB. Oestrogen increases the activity of oestrogen receptor negative breast cancer stem cells through paracrine EGFR and Notch signalling. *Breast Cancer Res*. 2013 Mar 8;15(2):R21.



Dent S, Oyan B, Honig A, Mano M, Howell S. HER2-targeted therapy in breast cancer: a systematic review of neoadjuvant trials. *Cancer Treat Rev.* 2013 Oct;39(6):622-31

Howell SJ. Advances in the treatment of luminal breast cancer. *Curr Opin Obstet Gynecol.* 2013 Feb;25(1):49-54.

Singh JK, Farnie G, Bundred NJ, Simões BM, Shergill A, Landberg G, Howell SJ, Clarke RB. Targeting CXCR1/2 significantly reduces breast cancer stem cell activity and increases the efficacy of inhibiting HER2 via HER2-dependent and -independent mechanisms. *Clin Cancer Res.* 2013 Feb 1;19(3):643-56.

Hall E, Cameron D, Waters R, Barrett-Lee P, Ellis P, Russell S, Bliss JM, Hopwood P; TACT Trial Investigators. Comparison of patient reported quality of life and impact of treatment side effects experienced with a taxane-containing regimen and standard anthracycline based chemotherapy for early breast cancer: 6 year results from the UK TACT trial (CRUK/01/001). *Eur J Cancer.* 2014 Sep;50(14):2375-89.

Huober J, Cole BF, Rabaglio M, Giobbie-Hurder A, Wu J, Ejlersen B, Bonnefoi H, Forbes JF, Neven P, Láng I, Smith I, Wardley A, Price KN, Goldhirsch A, Coates AS, Colleoni M, Gelber RD, Thürlimann B; BIG 1-98 Collaborative and International Breast Cancer Study Groups. Symptoms of endocrine treatment and outcome in the BIG 1-98 study. *Breast Cancer Res Treat.* 2014 Jan;143(1):159-69.

Johnston SR, Kilburn LS, Ellis P, Dodwell D, Cameron D, Hayward L, Im YH, Braybrooke JP, Brunt AM, Cheung KL, Jyothirmayi R, Robinson A, Wardley AM, Wheatley D, Howell A, Coombes G, Sergenson N, Sin HJ, Folkard E, Dowsett M, Bliss JM; SoFEA investigators. Fulvestrant plus anastrozole or placebo versus exemestane alone after progression on non-steroidal aromatase inhibitors in postmenopausal patients with hormone-receptor-positive locally advanced or metastatic breast cancer (SoFEA): a composite, multicentre, phase 3 randomised trial. *Lancet Oncol.* 2013 Sep;14(10):989-98.



Baselga J, Gómez P, Greil R, Braga S, Climent MA, Wardley AM, Kaufman B, Stemmer SM, Pêgo A, Chan A, Goeminne JC, Graas MP, Kennedy MJ, Ciruelos Gil EM, Schneeweiss A, Zubel A, Groos J, Melezínková H, Awada A. Randomized phase II study of the anti-epidermal growth factor receptor monoclonal antibody cetuximab with cisplatin versus cisplatin alone in patients with metastatic triple-negative breast cancer. *J Clin Oncol*. 2013 Jul 10;31(20):2586-92

Rugo HS, Campone M, Amadori D, Aldrighetti D, Conte P, Wardley A, Villanueva C, Melisko M, McHenry MB, Liu D, Lee F, Pivot X. A randomized, phase II, three-arm study of two schedules of ixabepilone or paclitaxel plus bevacizumab as first-line therapy for metastatic breast cancer. *Breast Cancer Res Treat*. 2013 Jun;139(2):411-9.

Gianni L, Romieu GH, Lichinitser M, Serrano SV, Mansutti M, Pivot X, Mariani P, Andre F, Chan A, Lipatov O, Chan S, Wardley A, Greil R, Moore N, Prot S, Pallaud C, Semiglazov V. AVEREL: a randomized phase III Trial evaluating bevacizumab in combination with docetaxel and trastuzumab as first-line therapy for HER2-positive locally recurrent/metastatic breast cancer. *J Clin Oncol*. 2013 May 10;31(14):1719-25.

Pestalozzi BC, Holmes E, de Azambuja E, Metzger-Filho O, Hogge L, Scullion M, Láng I, Wardley A, Lichinitser M, Sanchez RI, Müller V, Dodwell D, Gelber RD, Piccart-Gebhart MJ, Cameron D. CNS relapses in patients with HER2-positive early breast cancer who have and have not received adjuvant trastuzumab: a retrospective substudy of the HERA trial (BIG 1-01). *Lancet Oncol*. 2013 Mar;14(3):244-8.

Mackey JR, Martin M, Pienkowski T, Rolski J, Guastalla JP, Sami A, Glaspy J, Juhos E, Wardley A, Fornander T, Hainsworth J, Coleman R, Modiano MR, Vinholes J, Pinter T, Rodríguez-Lescure A, Colwell B, Whitlock P, Provencher L, Laing K, Walde D, Price C, Hugh JC, Childs BH, Bassi K, Lindsay MA, Wilson V, Rupin M, Houé V, Vogel C; TRIO/BCIRG 001 investigators. Adjuvant docetaxel, doxorubicin, and cyclophosphamide in node-positive breast cancer: 10-year follow-up of the phase 3 randomised BCIRG 001 trial. *Lancet Oncol*. 2013 Jan;14(1):72-80.



Haviland JS, Owen JR, Dewar JA, Agrawal RK, Barrett J, Barrett-Lee PJ, Dobbs HJ, Hopwood P, Lawton PA, Magee BJ, Mills J, Simmons S, Sydenham MA, Venables K, Bliss JM, Yarnold JR; START Trialists' Group. The UK Standardisation of Breast Radiotherapy (START) trials of radiotherapy hypofractionation for treatment of early breast cancer: 10-year follow-up results of two randomised controlled trials. *Lancet Oncol.* 2013 Oct;14(11):1086-94.

Hopwood P, Haviland JS, Sumo G, Mills J, Bliss JM, Yarnold JR; START Trial Management Group. Comparison of patient-reported breast, arm, and shoulder symptoms and body image after radiotherapy for early breast cancer: 5-year follow-up in the randomised Standardisation of Breast Radiotherapy (START) trials. *Lancet Oncol.* 2010 Mar;11(3):231-40.

Kirwan CC, Al Sarakbi W, Loncaster J, Chan HY, Thompson AM, Wishart GC. Tumour bed clip localisation for targeted breast radiotherapy: compliance is proportional to trial-related research activity: tumour bed clip localisation in breast radiotherapy. *Eur J Surg Oncol.* 2014 Feb;40(2):158-62.

Mullard AP, Misra V, Sumra P, Ali Z, O'Reilly SM, Malik Z. Reducing febrile neutropenia rates in early breast cancer. Experience of two UK cancer centres. *Support Care Cancer.* 2014 Aug;22(8):2033-7.

Palmieri C, Misra V, Januszewski A, Yosef H, Ashford R, Keary I, Davidson N. Multicenter experience of nonpegylated liposomal doxorubicin use in the management of metastatic breast cancer. *Clin Breast Cancer.* 2014 Apr;14(2):85-93

Barnett GC, Thompson D, Fachal L, Kerns S, Talbot C, Elliott RM, Dorling L, Coles CE, Dearnaley DP, Rosenstein BS, Vega A, Symonds P, Yarnold J, Baynes C, Michailidou K, Dennis J, Tyrer JP, Wilkinson JS, Gómez-Caamaño A, Tanteles GA, Platte R, Mayes R, Conroy D, Maranian M, Luccarini C, Gulliford SL, Sydes MR, Hall E, Haviland J, Misra V, Titley J, Bentzen SM, Pharoah PD, Burnet NG, Dunning AM, West CM. A genome wide association study (GWAS) providing evidence of an association between common genetic variants and late radiotherapy toxicity. *Radiother Oncol.* 2014 May;111(2):178-85.



Management of Menopausal Symptoms for Breast Cancer Daniel D Mitchell H Higham P Timpson J Foy S British Journal of Nursing 2014 23 427-432

Clinical Audit activity.

The group undertakes regular audits: e.g. examining the use of growth factors, the use of anti-emetics in patients receiving chemotherapy, the use of newer drugs such as eribulin funded by the national Cancer Drugs Fund, the use of radiotherapy in DCIS.

Data on the morbidity and mortality related to systemic therapy is regularly collected and discussed in team meeting.

Educational, Teaching and Training Activity.

The group is involved in education and training of under-graduate and post-graduates in medicine, nursing, radiography and other allied health professionals.