**Version Control**

This is a controlled document please destroy all previous versions on receipt of a new version.

Date Approved: September 2013    Review Date: April 2015

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<th>Version</th>
<th>Date Issued</th>
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<th>Brief Summary of Change</th>
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Introduction

The Breast Clinical Network Group (CNG) is the main source of clinical advice to Cheshire & Merseyside Strategic Clinical Networks (CMSCN) Cancer Steering Group & Oversight Group on all matters relating to its area of expertise. The role of the CNG is to ensure co-ordination of the cancer pathway, consistency of clinical practice and to achieve the best possible outcomes and experience for patients, irrespective of where their treatment and care is provided.

The following clinical guidelines have been developed in consultation as appropriate with Trust MDTs, Heads of Service and the Chemotherapy, Imaging, Pathology and Radiotherapy Cross Cutting Groups.

The guidelines are subject to review and update on a regular basis. Once ratified by the CNG individual MDTs agree to abide by them.

At the time of approval the guidelines were widely circulated via the Network to Acute Trust Cancer Management Teams for trust-wide circulation and to Colorectal Clinical Leads for circulation to MDT members.

Section One: Patient Pathway

1.1 CMSCN Configuration of Breast Services

The following table outlines the named services, hospitals and MDTs which a patient should be referred to within CMSCN. Relevant contact points for the services, hospitals and MDTs are documented in Appendix 1.0.

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<thead>
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<th>Surgical Management</th>
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</tbody>
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¹Includes clinical assessment, diagnostics & MDT provision
²Outreach service provided by CCC
³Includes follow up, rehabilitation, psychological and social support
1.2 Primary Care Referral Guidelines for Breast Symptoms
The CNG has produced network-wide guidelines for primary care practitioners on the referral for diagnosis of patients with potential breast cancer.

Agreed Symptomatic/Screening Pathway

- Other Referral
  - Internal Referrals
- 2 Week wait Referral
- One stop Clinic
  - Triple assessment
- Reassure & Discharge
  - -ve
  - +ve
- NHSBSP Referral
- MDT Discussion
- Further Investigations
  - E.g. MRI
- Invasive Breast Cancer
- DCIS
- Invasive Breast Cancer
- Advanced Metastatic Breast Cancer
- Surgery
- Adj Tx
- Neo Adj Tx
- Oncology
- Palliation
  - Surgery
  - Endocrine
  - Oncology
  - SPC
- Follow up
  - As per protocol
  - End of treatment summary
  - Supported self management
  - Rehabilitation services
1.3 Diagnostic Assessment

Current NHS waiting time targets for time from referral to first outpatient appointment and first treatment (Cancer Reform Strategy, 2007):

- 14 days from referral by GP to first outpatient appointment for all patients with a symptomatic breast problem regardless of urgency (does not apply to referral for asymptomatic issues or assessment of family history risk)
- 31 days from diagnosis/decision to treat to first treatment
- 62 days from referral from GP to first treatment.

- DOH: Cancer Reform Strategy (2007)

Current guidance on waiting time for assessment of women referred from the NHS Breast Screening Programme (NHSBSP):

- 90% of women should be seen for surgical assessment within 1 week of decision to refer
- 90% of women should receive first treatment within 62 days of decision to recall for assessment.

- NHSBSP publication No. 60: Consolidated guidance on standards for the NHS Breast Screening Programme (2005)

1.4 Familial Breast Cancer

MDTs will apply NICE CG164 recommendations in the classification and care of people at risk of familial breast cancer.

- NHSBSP Publication No. 73: March 2013 Guidelines on organising the surveillance of women at higher risk of developing breast cancer in an NHS Breast Screening Programme
- NHSBSP Publication No. 74: June 2013 Protocols for the surveillance of women at higher risk of developing breast cancer

1.5 Referrals between multidisciplinary teams

1.5.1 Principles of referrals

Patients may be referred between multidisciplinary teams (MDTs) for clinical reasons or because of patient choice.

All new breast cancer patients must be discussed at a breast MDT. This will, in the first instance, always be in the Trust receiving the first referral. Onward referral to another MDT should be considered for the following reasons:

1. **Radiology:** Radiological findings consistent with breast metastases e.g. brain, spinal (including MSCC), lung will be referred to appropriate local or specialist network MDT’s for further management/advice if required.
2. **Pathology:** Histopathology findings consist with an atypical or secondary cancer within the breast e.g. malignant melanoma, lymphoma, angiosarcoma will be referred to appropriate local or specialist network MDT’s for further management/ advice.

3. **Patient Choice:** Personal circumstances affecting treatment location e.g. travel/family support or second opinion requested by patient. Referrals to another MDT will require further MDT review of diagnostic imaging/pathology findings.

4. **Teenage & young adults:** Age-related support services for people aged 16 - 24

5. **Palliative Care:** Extensive/incurable disease requiring symptom control

6. **Further consideration of a complex case:** Borderline decision for treatment. Diagnostic uncertainty requiring vacuum assisted biopsy or MRI guided biopsy.

7. **Complex reconstructive cases:** tertiary referral for patients requiring level 3 oncoplastic/reconstructive surgery.

8. **Specialist Management:** clinical trials not available locally.

**Communication and waiting times:** A second breast MDT either within the Network or in another network should be contacted via either a core member or the MDT co-ordinator. The referring member should undertake to attend the MDT or pass sufficient information to a core member of the MDT so that all relevant clinical data is available for the referral

### 1.5.2 Screening patients being referred for treatment
After assessment, patients will be referred to their local MDT. Patients should be offered information and choice regarding the treating hospital.

### 1.5.3 Referring patients to oncologists
All patients with newly diagnosed, recurrent or metastatic breast cancer will be discussed at a full MDT meeting. This will usually include the core oncology MDT members, who will action the referral from the meeting.

Patients who are being referred for neo-adjuvant treatment must begin their treatment within 31 days of their diagnosis, or 62 days of the date of referral for suspected cancer by their GP.

### 1.5.4 Referring patients for reconstruction or other complex treatment
If a patient is to be referred to a surgeon from another MDT to discuss options for primary surgical treatment, the referring consultant should use secure messaging systems to send a letter providing all the necessary clinical information within 24 hours following the discussion with the patient. The 31- day and 62-day targets will still need to be met.

### 1.6 At Diagnosis
Patients should be offered as much information as they find helpful when describing the different treatment options available to them. All patients should be offered comprehensive written information about breast cancer tailored wherever possible to their individual circumstances. An
information prescription should be offered to the patient on or around the time of diagnosis, in whatever format the patient prefers.

The communication of a diagnosis of breast cancer to the patient’s GP should be completed within 24 hours either by secure messaging systems. This should be recorded for audit purposes in the patient record.

It is considered to be good practice to have a breast care nurse present when breaking bad news and this person should take on the role of key worker or nominate another health professional for this role. Information and support are available from the key worker throughout the patient pathway and thereafter. This also applies to patients with recurrent or advanced breast cancer.

Holistic needs assessment should be undertaken at key points in the patient’s pathway and the results should be taken into account in the MDT’s decision making.

- CMSCN Breast Angiosarcoma Pathway (Section Eight)
- CMSCN TYA pathways for initial management and for follow up on completion of first line treatment (Section Eight)
- CMSCN CUP Pathway (Section Eight)

1.7 Breast MDT

Local Breast MDTs must be compliant with peer review standards.


People who develop local recurrence, regional recurrence and/or distant metastatic disease have their treatment and care discussed by the multidisciplinary team.

- NICE QS12: Breast Quality Standards (2011)

1.8 Extended Breast MDT Members

The team as a whole should be responsible for planning care in a seamless way so that each patient receives prompt and appropriate care throughout the process of diagnosis and treatment, up to and including the period when palliation may be needed.

The team must maintain close contact with all other professionals who are actively involved in supporting the patient or in carrying out the treatment strategy decided by the core team. These include the following:
Teams based in cancer units must maintain close liaison with the cancer centre. Patients should be given information about the members of the team involved in their care and management and their roles.

Within the breast unit, rehabilitation services are provided by numerous practitioners, all of whom encourage a multidisciplinary approach. They offer care relating to physical and psychosocial functioning for both acute and metastatic breast patients undergoing any form of treatment. Referral indicators for rehabilitation services are covered in Section 9.0.

Section Two: Imaging

The following section outlines the Breast CNG’s agreed imaging strategies for the diagnosis and ongoing management of breast cancer.

- NHSBSP Publication No. 57: Oct 2003 External Quality Assessment Scheme for Breast Screening Histopathology
- NHSBSP Publication No. 73: Protocols for the surveillance of women at higher risk of developing breast cancer (2013)
Section Three: Pathology

The following section outlines the Breast CNG’s agreed pathology guidance for the diagnosis and ongoing management of breast cancer.

- BMJ: HER2 testing in the UK: recommendations for breast and gastric in-situ hybridisation methods (2011)
- NHSBSP Publication No. 2: July 2011 (2nd edition) Quality Assurance Guidelines for Breast Pathology Services
- NHSBSP Publication No 58: Pathology reporting of breast disease (2005)
- NICE DG10 Gene expression profiling and expanded immunohistochemistry tests for guiding adjuvant chemotherapy decisions in early breast cancer management: MammaPrint, Oncotype DX, IHC4 and Mammostrat (2013)

3.1 Protocol for Sentinel Node Biopsy Breast Cancer - Pathology Assessment

Preliminary notes

- All patients with a normal or benign axillary ultrasound assessment will be considered for sentinel lymph node biopsy. Patients with cytologically/ pathological -positive nodes will either undergo axillary clearance or axillary radiotherapy as their primary treatment.

All units are now fully trained
• There are no health and safety implications for laboratory staff resulting from the use of radioisotopes to localised the lymph nodes.

• At present the Network do not recommend intra-operative frozen section or touch imprint reporting of sentinel node status secondary to the high false negative rate of these techniques. Intra-operative analysis using the OSNA system has been approved by Nice (NICE DG8: Intraoperative tests (RD-100) OSNA system and Metasin test) for detecting sentinel lymph node metastases in breast cancer (2013). Any unit starting this technique should initially audit their results.

• There are currently no national guidelines for the handling of sentinel nodes for breast carcinoma. The following guideline is based on best practice after discussion with the breast CNG pathologists and discussion at the NHS BSP QA big 18 Pathology section meeting 9th Feb 2005 with input from Dr S Pinder, Dr L Lebrow and Dr G Cserni. It is recognised that the scientific and prognostic value of the recognition of micrometastases and small numbers of tumour cells is debatable. The view taken is that the objective histological information will be recorded and that the surgeons and oncologists will decide how it should be conveyed to the patient to inform therapeutic decisions.

• This guideline is based on the pathology protocol from the Almanac trial ‘Randomized Multicenter Trial of Sentinel Node Biopsy Versus Standard Axillary Treatment in Operable Breast Cancer: The ALMANAC Trial’ Mansel et al 2006

Laboratory Procedures

Specimen receipt

• Sentinel nodes will be received as separate specimens in formalin [for cases where tissue is currently received without fixative, the nodes will be unfixed].

Specimen handling

• Describe colour (relate colour to any other lymph nodes within the axillary dissection specimen during training phase).

• Measure dimensions.

Tissue blocks

• A representative complete section of any grossly involved node is adequate.

• All other nodes should be serially sliced at intervals of 2mm or less perpendicular to long axis and blocked in their entirety.

Sections

• A single full face section should be examined for all SLNs
• Take one H&E section from each block.
• Stain by standard hematoxylin–eosin staining.
• Lymph nodes smaller than 5 mm to be bisected and stained;
• Lymph nodes 5 mm or larger to be sectioned at 3-mm intervals, and single sections stained with hematoxylin–eosin
• Slice the node at 2-3 mm intervals, embedding it in its entirety.
• Examination of levels need not be part of routine practice.

Levels may be performed if small groups of worrisome cells are identified or for further size measurement for sub classification into micro or macro metastases.

Immunohistochemistry

• Take one H&E section with immunohistochemistry only if suspicious cells are seen that need defining further

Molecular analysis

• Research tool only.

Frozen Section + Imprint Cytology

• Not to be used as a method for excluding involvement (research tool only). High risk of false negative. False positives also reported.

Reporting

TMN

pN1               - metastasis >2mm
pN1 mic           - larger than 0.2mm, no larger than 2mm, may have stromal reaction/proliferation
pN0 (i+)          - no metastasis histologically, positive IHC, no cluster >0.2mm.
pN0 (i)           - no metastasis histologically, no additional examination for isolated tumour cells.

Definition of isolated tumour cells – Single tumour cells or small clusters of cells no more than 0.2mm in greatest dimension. Usually detected by immunohistochemistry or molecular methods, verified by H&E. Do not typically show proliferation/stromal reaction or penetration of vascular or lymphatic sinus walls.

Measurement

• If multiple foci only largest is considered.

• If single tumour cells or clusters or nests are continuous or separated by 2-5 cells measure as one focus, with largest size.

• If discontinuous and evenly dispersed measure as one.
• If discontinuous and unevenly dispersed consider as one if distance between foci is smaller than smallest cluster.

References:

1. NHS BSP QA Big 18 Pathology Section Meeting – 9 February 2005. Input from Dr S Pinder/Der L Lebrow/Dr G Cserni.


NHS Breast Screening Programme, Guidelines for Pathology Reporting in Breast Cancer Screening, NHS Cancer Screening Programmes, 2005

Early and Locally Advanced Breast Cancer; Diagnosis and Treatment, NICE Clinical Guidelines, No. 80, National Collaborating Centre for Cancer (UK); 2009.


It is intended that this protocol will be revised one National Guidelines are available in the form of an addendum to breast screening publication No 58
Section Four: Surgical Management

The following section outlines the Breast CNG’s agreed guidance for the surgical management of breast cancer.

The Mersey CNG agrees with the Association of Breast Surgery margin consensus statement (AGM Bournemouth 2015) which states a minimum margin width of 1mm for both invasive and non-invasive disease.

- Association of Breast Surgery at BASO - Surgical guidelines for the management of breast cancer (2009)
- Association of Breast Surgery Oncoplastic Breast Reconstruction: Guidelines for Best Practice (2012)
- NHS Improvement: Delivering major breast surgery safely as a day case or one night stay (excluding reconstruction) (2011)
- NICE DG8: Intraoperative tests (RD-100i OSNA system and Metasin test) for detecting sentinel lymph node metastases in breast cancer (2013)

Section Five: Radiotherapy

The following section outlines the Breast CNG’s agreed guidance for radiotherapy in breast cancer.

- Clatterbridge Cancer Centre: Radiotherapy Protocols

5.1 CMSCN Guidelines for radiotherapy in early breast cancer
<table>
<thead>
<tr>
<th>Tumour Group : Breast</th>
<th>Site: Breast + SCF or Chest Wall + SCF (+/- axilla)</th>
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<tr>
<td>Tumour: Invasive primary breast cancer</td>
<td><strong>Intent:</strong> Radical/Palliative  \  <strong>RCR Category status:</strong> radical = 2, palliative = 3</td>
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</table>

1. **Localisation method**
   - CT Sim 5mm slices
   - Simulator using surface anatomy, position of scar, clips, operation notes and mammographic findings to localise tumour bed - simple single plane, with external contour of the central slice of the PTV taken using Osiris.
   - Wire to scar. Radio-opaque markers placed on lateral and medial ref points

2. **Planning technique**
   - Simulator - isocentric, coplanar tangentials matched to a single anterior field at fixed FSD to cover the SCF and axilla as appropriate.
   - CTSim – single isocentre backedge aligned tangentials matched to an anterior nodal field using asymmetric jaws. PAB as needed.

3. **Immobilisation method**
   - QUEST board with patient position as per TWR3FISO. Chinstrap.

4. **Volume definition and Critical structures**
   - **CTV =** whole of breast tissue (or skin flaps from 5mm below skin surface if post mastectomy) and including soft tissues down to deep fascia (but not including underlying muscle and ribcage), and SCF +/- axilla
   - **PTV =** CTV + 1cm
   - The field borders for the tangential fields are as follows:
     - Medial – the midline.
     - Lateral – 1cm below the breast plate or to the mid-axillary line.
     - Superiorly – the second intercostal space at the level of the Angle of Louis.
     - Inferiorly – to 1-2cm below the inferior extent of breast tissue – estimated extent if post mastectomy.
   - The field borders for the anterior axilla and SCF field are as follows:
     - Medial – ipsilateral edge of the vertebral bodies
     - Lateral – lateral extent of the second rib
     - Lateral if axilla included – insertion of the Teres major into the humerus
     - Superior – at least 3cm above the head of the clavicle (i.e. to cover the SCF).
     - Inferior – matched to the tangential fields.
   - A posterior axillary field may occasionally be required for larger axillary separations. This must be planned on an individual patient basis.
   - Heart-distance of post edge of field to ant border of heart to be < 1.5cm.
   - Lungs- central lung distance for tangential fields not normally >2cm.
   - Hot spots > than 105% should be avoided in the skin and ribcage.
5. **Dose and Fractionation**

Radical: 40Gy (or 40.5Gy) in 15 daily fractions (Grade B)
50Gy in 25 daily fractions (Grade B)
45Gy in 20 daily fractions

Palliative: 30-36Gy / 5-6# / 1 per week (Jig and Bolus technique may be used – see local work instruction TWRJGBOL for further details)

6. **Special instructions**

- Attendance at Breast Care Class as per local Standard
- Referral to Breast Clinical Nurse Specialist Service in accordance with CReST referral criteria
- Provide patient with Radiotherapy to the Breast/Radiotherapy to the Chest Wall information leaflet as appropriate

7. **Clinical Trials and References**

None at present.

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**Site: Tumour bed boost**

**Tumour: Primary invasive breast cancer**

**Intent: Radical**

**RCR Category status: 2**

1. **Localisation method**

CT planned if Oncoplastic surgery. Clipping of tumour bed is encouraged. The relation of scar to tumour bed should be ascertained from operation notes, discussion with the operating surgeon and clinical examination. CT scan - for incisions where scar does not overlie tumour bed. 5mm slices and wire to scar. The (clipped) tumour bed, including seroma if present, is identified and outlined. Mark up on set, if confirmed that scar overlies the tumour bed.

2. **Planning technique**

For incisions where the scar does not overlie the tumour bed, planned photon boost. Normally 3 field requiring 3D dataset. If depth is satisfactory for an electron boost, moves from origin to tumour bed may be ascertained from the scan on Prosoma, and an electron field can be marked directly, using this information in the simulator. Note CT planning should be employed for ph1 and ph2 for patients who have oncoplastic incisions who will require identification of the tumour bed for a boost. Direct single electron field, centred on scar where scar overlies tumour bed.

3. **Immobilisation method**

For patients receiving photon boost, position is as ph1 (see TWR2FISO)
For electron boost, supine position on couch with abduction of ipsilateral arm. Lateral tumours are best treated with patient rolled slightly to the side.
### 4. Volume definition and Critical structures

For photon boosts: CTV=the volume enclosed by surgical clips+ changes in surrounding tissue architecture. The PTV=CTV+ 10mm (this margin may be increased if close surgical margins or extensive DCIS)

For electron boosts, the treatment field normally consists of the tissue defect from the surgery and the scar with an adequate margin. The whole length of the scar does not always require inclusion in the boost field.

Lungs, heart, skin.

### 5. Dose and Fractionation

<table>
<thead>
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<td>9Gy in 3 daily fractions</td>
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### 6. Special instructions

Digital photograph to record field for electron mark up.

### 7. Clinical Trials and References

None at present

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<table>
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<td>Site: Breast or Chest Wall only</td>
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### 1. Localisation method

CT Sim (Brilliance/AcQSim) 5mm slices

Simulator using surface anatomy, position of scar, clips, operation notes and mammographic findings to localise tumour bed - simple single plane, with external contour of the central slice of the PTV taken using Osirix.

Wire to scar. Radio-opaque markers on lateral and medial reference points

### 2. Planning technique

Isocentric, coplanar backedge aligned tangentials.

### 3. Immobilisation method

QUEST board with patient position as per TWR2FISO.
4. Volume definition and Critical structures

CTV = the whole of the breast tissue (or the skin flaps from 5mm below the skin surface if post mastectomy) and including the soft tissues down to the deep fascia but not including the underlying muscle and ribcage.

PTV=CTV+1cm

The field borders are as follows:

Medial – the midline.

Lateral – 1cm below the breast plate or to the mid-axillary line.

Superiorly – the second intercostal space at the level of the Angle of Louis.

Inferiorly – to 1-2cm below inferior extent of breast tissue – estimated extent if post mastectomy.

PTV = CTV+1cm

Heart-distance of post edge of field to ant border of heart to be < 1.5cm.

Lungs-central lung distance for tangential fields not normally >2cm.

Hot spots of >105% should be avoided in the skin and ribcage.

5. Dose and Fractionation

Radical: 40Gy (or 40.5Gy) in 15 daily fractions (Grade B)

50Gy in 25 daily fractions (Grade B)

45Gy in 20 daily fractions

Palliative: 28.5Gy / 5# / 7 days

6. Special instructions

Attendance at Breast Care Class as per local Standard

Referral to Breast Clinical Nurse Specialist Service in accordance with CReST referral criteria

Provide patient with ‘Radiotherapy to the Breast’ information leaflet

7. Clinical Trials and References

Breast Only: IMPORT HIGH

Chest Wall Only: SUPREMO

FASTForward

Tumour Group: Breast

Site: Breast/chest wall and axilla (modified monobloc) Tumour: Invasive primary breast cancer

Intent: Radical

RCR Category status: 2

1. Localisation method

CT Sim (Brilliance/AcQSim) 5mm slices

Wire to scar. Radio-opaque markers placed on medial and lateral ref points

2. Planning technique

Isocentric, coplanar modified, extended tangentials.

3. Immobilisation method

Stable, supine position on QUEST board. Head straight, ipsilateral shoulder/arm extended superiorly to exclude all or as much as possible of the humeral head from the field elbow flexed a little and rotated backwards. Chinstrap.
### 4. Volume definition and Critical structures

CTV = whole of breast tissue (or skin flaps from 5mm below skin surface if post mastectomy) and including soft tissues down to deep fascia (but not including underlying muscle and ribcage), and the contents of the axilla.

PTV = CTV + 1cm

The field borders are as follows:

- **Medial** – the midline (or a little beyond) allowing coverage of breast tissue inferiorly, after appropriate THR to ensure optimum axillary coverage.
- **Lateral** – mid-axillary line (or slightly post to mid-axillary line) to ensure all breast tissue encompassed and field border is behind clavicle or covering axillary contents.
- **Superiorly** – ~ ⅔ of clavicle included, covering level 3 axillary nodes.
- **Inferiorly** – to 1-2cm below the inferior extent of breast tissue.

Superiorly – ~ ⅔ of clavicle included, covering level 3 axillary nodes.

Inferiorly – to 1-2cm below the inferior extent of breast tissue.

Heart-distance of post edge of field to ant border of heart to be < 1.5cm.

Lungs - central lung distance for tangential fields should not normally exceed 2.5cm, maximum acceptable in exceptional cases, 3cm.

Hot spots of greater than 105% should be avoided in the skin and ribcage.

### 5. Dose and Fractionation

45Gy in 20 daily fractions (Grade C)

### 6. Special instructions

- Attendance at Breast Care Class as per local Standard
- Referral to Breast Clinical Nurse Specialist Service in accordance with CReST referral criteria
- Provide patient with ‘Radiotherapy to the Breast’ information leaflet

### 7. Clinical Trials and References

None at present.
Section Six: Adjuvant therapy
The following section outlines the Breast CNG’s agreed guidance for systemic therapy management in breast cancer.

- Clatterbridge Cancer Centre: Chemotherapy Protocols
  http://www.clatterbridgecc.nhs.uk/professionals/guidance/

6.1 CMSCN Guidelines for Adjuvant Systemic Breast Cancer (2011)

Adjuvant Systemic Guidelines for Breast Cancer –

Introduction
Adjuvant systemic therapy (endocrine therapy, chemotherapy and trastuzumab, alone or in sequence) is now offered to almost all patients following surgery for early breast cancer. Such treatments have an established role in decreasing relapse and prolonging survival. Decisions on which treatment(s) to offer a patient are based on estimates of both the risk of recurrence and the likelihood of response to the treatments offered. All patients should be considered for entry into appropriate clinical trials.

The degree of axillary lymph node involvement at diagnosis is the single best prognostic factor. However, discrimination of risk within node negative patients remains difficult. Histological grade, tumour size and lymphovascular invasion appear the most important prognostic factors. Over-expression of HER-2 seems to be a significant prognostic factor as well as being predictive of response to trastuzumab and is associated with an increase of 1.5-2 fold in the relative risk of mortality. Young age (< 35 years) also seems to be an independent prognostic factor with a similar impact on survival as HER-2 over-expression. However, recurrence risk is a continuous variable and while a number of decision aids exist - consensus guidelines, molecular profiles and mathematical/computer models - none of these have been validated in a prospective randomised trial.

Oestrogen (ER) and HER-2 receptor status provides useful predictive information on which cancers are likely to respond to endocrine therapy and trastuzumab. Prediction of the likelihood of response to chemotherapy is more problematic. Several studies have suggested that ER positive tumours respond less well to chemotherapy than ER negative tumours. However, this has not been a consistent finding and there is still sufficient chance of benefit to justify its use in patients with high risk ER positive cancers. Older patients (> 70 years) are another group where considerable uncertainty exists about the magnitude of benefit from chemotherapy. The Early Breast Cancer Trialists Collaborative Group (EBCTCG) meta-analyses have suggested that older women may benefit less from chemotherapy than younger women. However, older women are grossly under-represented in trials of adjuvant chemotherapy (where the median age is usually around 50) which makes interpretation of available data difficult.

The decision aid ADJUVANT! (www.adjuvantonline.com) can be helpful to estimate the risk/benefit of treatment options. However, the ultimate decision should involve a multidisciplinary discussion encompassing absolute risks of recurrence and breast cancer mortality, potential benefits and side-
effects of treatment (with attention to the fitness of the patient) and patient preferences. Think most oncologists using Predict now?? Check with sue o

Need a paragraph re Oncotype

**Adjuvant Endocrine Therapy**
Adjuvant endocrine therapy is recommended for all patients with ER positive early breast cancer. Treatment options depend on the menopausal status of the patient.

**Premenopausal women**
Among women with ER positive disease, the EBCTCG meta-analysis confirmed that five years of tamoxifen almost halved the annual recurrence rate and reduced the annual breast cancer mortality rate by a third\(^9\). The proportional risk reductions seen with tamoxifen are little affected by age and result in an absolute improvement in 15 year recurrence and breast cancer mortality. Five years of adjuvant tamoxifen has therefore become standard adjuvant endocrine treatment for premenopausal women with ER positive breast cancer. The benefit of continuing tamoxifen beyond five years is still uncertain, although in poor prognostic disease the ATLAS trial suggests 10 years is superior to 5 years.

Ovarian ablation or suppression has also been shown to reduce recurrence and improve survival, with a benefit equal in magnitude to CMF\(^10\). The value of ovarian ablation/suppression over and above chemotherapy and/or tamoxifen in premenopausal women with ER positive disease is unclear and the subject of ongoing clinical trials.

It has become increasingly common, given the evidence of benefit from adjuvant aromatase inhibitors (AI) in postmenopausal women (see below), to consider treating women who develop amenorrhoea after chemotherapy with AIs either immediately or after a short period on tamoxifen, Great care must be exercised however, as ovarian function can recover beyond one year post chemotherapy\(^11\). Biochemical monitoring of ovarian function requires highly sensitive immunoassays not usually available in most hospitals and it may be preferable to continue on tamoxifen or to use a combination of ovarian suppressions and an AI if desired.

**Postmenopausal women**
Five years of tamoxifen can no longer be considered to be unequivocally the best adjuvant endocrine treatment for postmenopausal women with ER positive breast cancer. Several large randomised trials, as well as the results of the 2005/6 EBCTCG overview, show a benefit from either substituting AI for tamoxifen or using a sequential tamoxifen-Al regimen\(^12-15\). Thus, with the possible exception of patients with very low risk disease (e.g. low grade T1N0 tumours), postmenopausal patients should receive an aromatase inhibitor at some point during treatment.

The optimal strategy for the use of adjuvant AIs remains unclear. The strategy of using a sequential tamoxifen-Al strategy has some theoretical advantages. The use of two treatments with different mechanisms of action might be superior in overcoming treatment resistance while limiting the risk of osteoporosis associated with prolonged use of an AI. However, a sequential treatment strategy
might disadvantage patients at higher risk for relapse in the first 2-3 years after surgery. A third strategy - extended adjuvant treatment after 4-5 years of tamoxifen - has also been shown to be beneficial although it is unclear how long to continue the AI.

Data from ongoing trials will hopefully make clear which strategy achieve the best outcome. In the interim, either approach is reasonable, with patients at high risk of early relapse (e.g. high grade, HER-2 over-expression, low ER or heavily node positive) being particularly suitable for upfront AI while these results are awaited. As yet, here are no randomised comparisons between the the adjuvant use of different drugs in this class (anastrozole, letrozole and exemestane) to guide the choice of AI. While awaiting the results of such trials, any of the AIs can be used in their licensed indications.

The use of aromatase inhibitors is associated with an increased risk of osteoporosis. All patients should be advised of lifestyle choices which can minimise this risk and should be assessed according to recently published guidelines\(^\text{16}\).

**Adjuvant Chemotherapy**

Adjuvant combination chemotherapy can reduce recurrence and improve survival. Anthracycline based adjuvant chemotherapy regimens of 4-6 months duration significantly reduce the annual breast cancer death rate - by about 38% for women aged under 50 years and 20% for women aged 50-69 years\(^\text{9}\). Recent trials, largely in patients with node positive breast cancer, comparing taxane-anthracycine combinations or sequences with anthracycline-based treatment have shown further improvements in survival of a magnitude similar to the difference between anthracycline-based treatments and CMF\(^\text{17}\).

Several effective adjuvant chemotherapy regimens are available. Risk of recurrence, patient age, menopausal status and co-morbidity are important considerations when choosing appropriate treatment. The recommendations outlined below allow a range of options and should follow a discussion between doctor and patient of risks, benefits, side-effects and preferences.

**Risk categories**

<table>
<thead>
<tr>
<th></th>
<th>High risk</th>
<th>Intermediate risk</th>
<th>Low risk</th>
</tr>
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<tbody>
<tr>
<td>Pathological or Clinical N2 or N3 or N1 with other high risk features</td>
<td>Pathological or Clinical N2 or N3 or N1 with other high risk features</td>
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<tr>
<td>T1N0 without high risk features</td>
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</table>

**< 60 years old, no serious co-morbidity**
## Breast CNG Clinical Guidelines 2014 V. 1.1

### > 60 years old, no serious co-morbidity

<table>
<thead>
<tr>
<th></th>
<th>High risk</th>
<th>Intermediate risk</th>
<th>Low risk</th>
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</thead>
<tbody>
<tr>
<td><strong>ER positive</strong></td>
<td>FEC-D* or E-CMF* *followed by endocrine therapy</td>
<td>Node positive: FEC-D* or E-CMF*</td>
<td>Adjuvant endocrine therapy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Node negative: E-CMF* * followed by endocrine therapy</td>
<td></td>
</tr>
<tr>
<td><strong>ER negative</strong></td>
<td>FEC-D or E-CMF</td>
<td>Node positive: FEC-D or E-CMF or EC or AC</td>
<td>E-CMF or EC or AC or no chemotherapy</td>
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<tr>
<td></td>
<td></td>
<td>Node negative: E-CMF or EC or AC</td>
<td></td>
</tr>
<tr>
<td><strong>ER positive</strong></td>
<td>FEC-D or E-CMF followed by endocrine therapy</td>
<td>Endocrine therapy +/-</td>
<td>Adjuvant endocrine therapy</td>
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<tr>
<td></td>
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<td>Node positive: FEC-D or E-CMF or EC or AC</td>
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</tr>
<tr>
<td></td>
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<td>Node negative: E-CMF or EC or AC</td>
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</table>

### > 70 years

Adjuvant endocrine treatment is standard for patients with ER positive disease. Patients with ER negative disease or high risk ER positive disease may be candidates for chemotherapy depending on general health and co-morbidity.

Patients with a contra-indication to or who choose not to have anthracyclines are candidates for CMF or Docetaxel-Cyclophosphamide.

### Adjuvant Trastuzumab
Four large randomised trials using adjuvant trastuzumab as treatment for patients with HER-2 over-expressing tumours either together with or after adjuvant chemotherapy have reported considerable therapeutic benefit with a reduction in the annual odds of recurrence of around 50% and the annual odds of death of around 30%\textsuperscript{17-20}. Adjuvant trastuzumab is therefore recommended for all patients with HER-2 over-expressing $T_{\text{an}}N_{1-3}$ or $T_{\text{an}}N_{0}$ tumours who receive adjuvant chemotherapy. There are no data on the efficacy of adjuvant trastuzumab in patients with node negative cancers $< 1$ cm. Currently, trastuzumab is administered every 3 weeks for one year - the results of trials of longer and shorter durations of treatment are awaited. Trastuzumab can be administered following anthracycline-based or taxane-based chemotherapy or together with adjuvant taxane monotherapy.

Initial trials of adjuvant trastuzumab confirmed the potential cardiotoxicity of this treatment already known from studies in metastatic disease\textsuperscript{21}. It is recommended that patients with a history of documented congestive heart failure, myocardial infarction (unless good long term prognosis confirmed by cardiologist), uncontrolled hypertension or unstable arrhythmias should not receive adjuvant trastuzumab. Patients should have a normal baseline left ventricular ejection fraction (LVEF) measured by ECHO or MUGA. Particular care should be taken in the decision to treat patients older than 50 with a low normal LVEF (<55%) as 20% of this group experienced cardiotoxicity.

Patients should have LVEF measured at 4-monthly intervals during trastuzumab therapy. The NCRI has suggested guidelines for adjusting or stopping treatment if cardiac function deteriorates\textsuperscript{22}.

References

6.3 CMSCN Agreed list of Breast Cancer Clinical Trials

<table>
<thead>
<tr>
<th>Study Title</th>
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<tr>
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<td>ARISTACAT</td>
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<td>Attitudes and beliefs surrounding the fertility issues of young women with breast cancer</td>
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<td>BELLE 2</td>
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<tr>
<td>BOCS (Formerly FBBCS)</td>
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<td>Bridging the Age Gap in Breast Cancer</td>
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<td>EMBRACE</td>
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<td>NCRN407 BELLE 4:</td>
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<td>Persephone</td>
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<td>POETIC</td>
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<tr>
<td>Staging the axilla in breast cancer: PET/CT</td>
<td></td>
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<tr>
<td>The menstrual cycle as a test of endocrine responsiveness</td>
<td></td>
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<tr>
<td>TNT <em>(closing Mar 14)</em></td>
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<tr>
<td>T-POETIC v1</td>
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</tbody>
</table>

Section Seven: Aftercare

The following section outlines the Breast CNG’s agreed protocol for follow up & provides referral principles to supportive care services.

7.1 Follow Up

There is no evidence of benefit for routine clinical follow up for breast cancer patients. Stratified open-access including supported self-management should be strongly considered, regardless of stage of disease. All patients should have a consultation at the end of primary treatment, and receive an end of treatment summary including the signs and symptoms to be aware of. Referral to a health and well-being event, physical activity programme, and local support groups should be routinely offered. The network guidelines for supported self-management will give further detail of the agreed patient pathway and supporting documentation.
7.2 Physiotherapy
All Trusts provide physiotherapy services for both inpatients and outpatients which aim to restore or optimise functional independence and physiological and psychological wellbeing across the cancer pathway. Physiotherapists play an important role in the rehabilitation of patients, and it is imperative that physiotherapy starts as early as possible and is carried out under the supervision of an experienced physiotherapist who is familiar with the surgical techniques and possible complications.

7.2.1 Referral Criteria
Referrals are normally accepted from all members of the MDT and patients may be able to self-refer. Criteria for referral include:
- patients with a cancer diagnosis requiring rehabilitation
- any surgical patient following breast or axillary surgery, experiencing physical side effects of treatment (e.g. cording, decreased range of movement at the glenohumeral joint, or shoulder pain unrelieved by analgesia)
- Chemotherapy-related injuries affecting function
- early/late cancer treatment-related symptoms that are influencing a patient’s optimal function and require physiotherapy input (e.g. fatigue).

7.3 Lymphoedema
All Trusts in CMSCN should be able to offer advice for patients at risk of developing lymphoedema and have pathways in place for referral of patients with the condition. Lymphoedema may cause physical, social and psychological problems that may in turn have a profound effect upon a patient’s quality of life. Management of the condition concentrates on conservative treatment measures. These encourage the patient to become actively involved in the care of their swollen limb in order to gain maximum benefit from treatment followed by long-term control of the swelling.

7.3.1 Referral Criteria
Patients with any limb swelling should initially be medically assessed within the hospital to establish the cause of swelling, to establish the disease status of the patient and to facilitate the correction of any factors such as low albumin, thrombosis or infection, before any residual swelling is treated. All patients with lymphoedema, however mild, as a result of their cancer and/or its treatment, can then be referred to the lymphoedema service.

7.4 Occupational Therapy
All Trusts in CMSCN provide an occupational therapy service which aims to help patients achieve optimal functional independence. Based on a problem-solving approach, occupational therapy is problem-led, rather than diagnosis-led. The service provides assistance in the following areas:
- use of functional activities for the treatment of dysfunction
- retraining in the personal and domestic activities of daily living
- assessment and prescription of wheelchairs and pressure seating
- home assessments and referral for provision of equipment
- lifestyle management: investigating hobbies, work and leisure pursuits while adapting to the individual’s needs and loss of function
- advice and education on relaxation techniques and energy conservation
- the use of splints to prevent deformities and to control painful joints.
7.4.1 Referral
The service is available to both inpatients and outpatients at any point in the disease trajectory. Referrals can be made by any healthcare professional, or by patients and their families. Patients may be referred with either physical or psychological dysfunction.

7.5 Nutrition and Dietetics

7.5.1. Referral
At all Trusts within CMSCN, any member of the MDT may refer a patient to the dietician for any of the following reasons:

- the patient requires advice on healthy eating
- the patient is experiencing eating difficulties or weight loss as a result of treatment or advanced disease
- the patient requests advice on complementary or alternative diets
- the patient requires a therapeutic diet.

7.6 Psychological support
L3/4 practitioners who are skilled and experienced in diagnosis and/or in the range of treatments available, and who are aware of the physical and psychological effects of both the disease and its treatment, should be available to support women with breast cancer as required.

7.6.1. Referral
Mechanisms will vary from Trust to Trust.

7.7 Prosthetics Service
After breast surgery, women are given access to a comprehensive and confidential breast prosthetic service according to their individual choice and need. Permanent prostheses are fitted by a breast care nurse or qualified appliance officer. In addition, all patients are given practical advice about swimming costumes and bras.

7.7.1 Referral
Referrals are accepted from all members of the MDT.

7.8 Spiritual care
The chaplaincy within each Trust is available to all patients at all stages of disease and treatment for the individual care of all spiritual needs. The chaplains are committed to helping patients regardless of individual religious beliefs.

7.9 Complementary therapies
There are different arrangements for complementary therapies at each of the Trusts. Information on these is routinely provided to patients.

7.10 Social services
Social workers are available to all patients at all stages of disease and treatment for a variety of social needs, such as finances, benefits, housing and community care assessments.

Referrals can be made by any healthcare professional.
7.11 Palliative Care
Palliative care has been defined by the World Health Organisation (WHO) as “the active total care of patients whose disease is not responsive to curative treatment”. In addition, WHO characterises the features of palliative care as follows. Palliative care:
- affirms life and regards dying as a normal process
- neither hastens nor postpones death
- provides a relief from pain and other distressing symptoms
- integrates the psychological and spiritual aspects of patient care
- offers a support system to help patients live as actively as possible until death
- offers a support system to help the family cope during the patient’s illness and with their own bereavement.

Many of the characteristics of palliative care are applicable to patients in whom a response to curative treatment is expected. Indeed, WHO has suggested that palliative care should have an increasing role from the diagnosis to the time of death, and should be seen as adjunct to anti-cancer treatment as opposed to an alternative to anti-cancer treatment.

7.11.1 Referral
The main indications for referral are:
- symptom control (pain and other symptoms)
- psychological support for patient
- psychological support for patient’s relatives
- discharge planning (liaison with community palliative care services)

Referral can be made by an appropriate healthcare professional in contact with the patient.
Section Eight: Supporting Pathways

8.1 Breast Sarcoma Pathway

Breast Sarcoma Pathway
(fibromatosis, angiosarcoma, liposarcoma, and other sarcoma types)

Aims:
- To ensure patients with fibromatosis and sarcomas affecting the breast area are discussed at the appropriate MDTs, with clinical decisions supported by the appropriate MDT at agreed stages of the clinical pathway.
- To use the expertise of the breast and sarcoma MDTs appropriately for these cases.

Clinical suspicion

Breast clinic triple assessment including core biopsy/punch biopsy

Local Breast MDT discussion

Patient review

Biopsy histology review (if not performed earlier in pathway)
Diagnosis confirmed - staging to include:
- chest and liver CT
- bone scan
- consider PET CT if planning wide excision with flaps

Regional Sarcoma MDT discussion

Operable

Surgery undertaken by local breast MDT (in conjunction with plastic surgeon if appropriate)

Clinical indicators for discussion/referral to plastics/cardiothoracic/bone sarcoma teams:
- Angiosarcoma involving underlying chest wall
- Wide area of angiosarcoma needing flap reconstruction
- Large fibrosarcoma/liposarcoma requiring flaps

Review of resection material by sarcoma pathologist

Local Breast MDT

Sarcoma MDT - discussion and decision around adjuvant treatment
Feedback to Breast MDT

Patient review

Not operable

Clinical indicators:
- *locally extensive (unresectable disease) in which systemic therapy may be useful
- disseminated sarcoma
- sarcoma where neo adjuvant therapy should be considered, eg, rhabdomyosarcoma

Review of resection material by sarcoma pathologist

Local Breast MDT

Sarcoma MDT - discussion and decision around adjuvant treatment
Feedback to Breast MDT

Patient review

Adjuvant treatment not required – FU local Breast MDT
Adjuvant treatment required – Managed by sarcoma oncologist – Dr Nasim Ali/ Dr Doug Errington & FU by sarcoma team
Managed by breast oncologist – FU breast team
Patient outcome/clinic letter by breast MDT should be copied to the sarcoma MDT and vice versa
Follow up:
- This varies from Trust to Trust. The CNG supports the national survivorship programme of open access following the cessation of active treatment.
- Something about contact numbers in case of problems must be provided etc??
- Annual Mammographic surveillance should be undertaken for five years, with results provided via letter.
- Oncology follow-up as per oncology follow up guidelines. Follow up protocols for soft tissue type sarcomas should reflect those sarcomas of extremity and trunk.

Principles:
- Breast sarcomas should be managed by the local breast MDT. Site specific surgery is usually the best primary therapeutic option.
- All sarcoma core biopsies and tissue should be assessed and reported by a specialised sarcoma pathologist.
- Local breast MDTs undertake surgery, in collaboration with appropriate oncoplastic/plastic/cardiothoracic support where required.
- Key worker role is initially undertaken by breast clinical nurse specialist from breast MDT, with transfer to sarcoma clinical nurse specialist during oncology treatment.
- Metaplastic carcinomas of the breast (which often contain sarcomatous elements) should not be referred for discussion at the sarcoma MDT.
- Minimal resection margin should be at least 3cm for radial margins. The posterior margin may be difficult to achieve at the time of excision of the sarcoma as the pre-op staging with MR and CT is accurate to a certain extent only; again aim to achieve a minimum of 3cm of clear margin.
8.2 TYA pathway for initial management

Initial Management Pathway for TYA Patients MCCN
Tumour Type: Breast

- Suspected cancer referral (GP/A&E/screening/other referral route)
- Diagnostic tests leading to confirmed diagnosis (final responsibility for diagnostic process lies with site specific mdt)

Cancer Diagnosis

- TYA MDT outcome form sent to referring mdt
- Notify TYA MDT when diagnosis confirmed, complete TYA referral form Fax or email to mdt co-ordinator

Treatment Planning

- TYA MDT weekly: Tuesday am CCC
  - All TYA patients will be discussed at this mdt. Member of site specific team to present patient.
  - Agree treatment plan made by site specific mdt
  - Team to discuss patients individual support networks, identify any psychosocial issues to address.
  - Clinical trials to be considered

- Identify TYA team members input (social worker, psychologist, lead nurse, youth support)

In Treatment

- TYA MDT members throughout patients treatment as required.
- Support from TYA MDT to make contact with patient and discuss required support
- Follow up pathway according to site specific protocols
- Progression/relapse

Post Treatment

- Palliative care/end of life care

Breast - Site specific MDT meeting
- Patient discussed and treatment plan identified to per clinical guidelines
- The agreed site specific consultant is the person who remains in overall charge of the patients treatment
- Fertility discussion (if appropriate)
- Clinical trials to be considered
- TYA MDT member present if appropriate
- Agree place of care with patient

Aged 16-18 years treatment at Principal Treatment Centre in age appropriate setting

19-24 years treatment location choice at principal treatment centre in age appropriate setting or designated hospital

Further information on reverse of page.
TYA MDT Details-
TYA MDT co-ordinator Theresa Oty Email: ccf-tr.CCOTYA@nhs.net Fax. 0151 482 7671
Clatterbridge Cancer Centre, Tuesday 9am JKD library, video and conference call available. Lead Clinician Dr Nasim Ali

Breast MDT Details-
Aintree- TIA lead Clinician: Dr Lynny Ying: Lynny.ying@aintree.nhs.uk
Breast MDT Lead Clinician: Lee Martin: Lee.martin@aintree.nhs.uk
MDT Coordinator: Donna Wharton: Donna.wharton@aintree.nhs.uk 0151 529 0153

Countess of Chester- Not a Designated Hospital for TIA lead
Breast MDT Lead Clinician: Elizabeth Redmond: Elizabeth.redmond@nhs.net
MDT Coordinator: Julie Watson: Julie.watson15@nhs.net

Southport and Ormskirk- Not a Designated Hospital for TIA lead
Breast MDT Lead Clinician: Professor Kiire: clement.kiire@nhs.net
MDT Coordinator: Cathy O’Hare: cathy.ohare@nhs.net

St Helens and Knowsley- TIA Lead Clinician: Dr Majed Gharib: majed.gharib@shk.nhs.uk
Breast MDT Lead Clinician: Miss Leena Chagla: Leena.chagla@shk.nhs.uk
MDT Coordinator: Neil Callander: neil.callander@shk.nhs.uk 01744 646582

Royal Liverpool and Broadgreen -TIA Lead Clinician: Dr Nagesh Kalakonda: nagesh.kalakonda@liverpool.ac.uk
Breast MDT Lead Clinician: Professor Holcombe: chris.holcombe@rlbuht.nhs.uk
MDT Coordinator: Sarah Cannon: Sarah.cannon@rlbuht.nhs.uk 0151 706 3796

Warrington and Halton- Not a Designated Hospital for TIA lead
Breast MDT Lead Clinician: Graham Copeland: graham.copeland@whh.nhs.uk
MDT Coordinator: Sue Dawson: susandawson@nhs.net

Wirral University Teaching Hospital- TIA Lead Clinician: Dr Ranjit Dasgupta: rdasgupta@nhs.net
Breast MDT Lead Clinician: Jonathan Mund:jonathan.mund@nhs.net
MDT Coordinator Hannah Camden: Hannah.camden@nhs.net

TYA location options for care-
Surgical option 16-24yrs in accordance with local site specific pathways
Chemotherapy 16-18yrs Alder Hey or Clatterbridge Cancer Centre 19-24yrs Clatterbridge Cancer Centre
Radiotherapy 16-24yrs Clatterbridge Cancer Centre
8.3 TYA pathway for follow up on completion of first line treatment

**Follow up Pathway for Teenagers and Young Adults (TYAs) Following Completion of First Line Treatment**

**Tumour Type: Breast**

**TYA MDT**
- Continuing TYA team involvement, coordination of age appropriate clinical and psychological care

**Patient completed first line treatment.** (Could include any combination of surgery, chemotherapy and/or radiotherapy)

**Breast MDT**
- End of treatment summary (disease status, prognosis, treatments recorded, toxicities) and care plan produced by medical team within six months of treatment

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**CLIC Sargent social worker will send introduction letter with information and offer initial grant for a person 16 to 24 years at diagnosis and relapse. A more in-depth service will be offered on assessed needs.**

**CLIC Sargent TYA Psychologist will continue to provide support and accept new referrals for those completing treatment.**

**Peer Support:** Young people will be invited to peer support activities for 2 years post treatment and can access the Youth Support Co-ordinator in this time

**Discussion and outcomes sent to GP and site specific consultant as appropriate.**

**Disease progression supportive care only**

**Clinical follow up as per breast specific pathways**

**Outpatient clinic reviews, toxicity monitoring, late effects**

**Surveillance monitoring; imaging and/or laboratory investigations as appropriate**

**Referred to tya mdt, continue as tya initial management pathway as appropriate**

**Referred to breast support groups as appropriate**

**Referred to tya mdt, continue as tya initial management pathway as appropriate**

**Recurrent disease or new primary via self referral, gp or surveillance. Refer back to responsible consultant**

---

**Notes:**
- There will be unhindered access into the tya mdt if clinicians have concerns about any patient after completion of first line treatment or if the patient wishes to be discussed.
- Late effects: 5 years post diagnosis, the TYA MDT co-ordinator will contact the site specific team to consider referral to the late effects service and late effects mdt if appropriate as part of the patients care plan.
TYA MDT Details

TYA MDT co-ordinator Theresa Otty Email: ccf.tr.CCOTYA@nhs.net Fax: 0151 482 7671
Clatterbridge Cancer Centre, Tuesday Sam JKD library, video and conference call available. Lead Clinician Dr Nasim Ali

Breast MDT Details

Aintree- Breast MDT Lead Clinician: Lee Martin: Lee.martin@aintree.nhs.uk
MDT Coordinator: Donna Wharton: Donna.wharton@aintree.nhs.uk 0151 529 0153
TYA lead Clinician: Dr Lynny Yang: Lynny.yang@aintree.nhs.uk

Countess of Chester- Breast MDT Lead Clinician: Elisabeth Redmond: Elizabeth.redmond@nhs.net
MDT Coordinator: Julie Watson: Julie.watson15@nhs.net
Not a Designated Hospital for TYA lead

Southport and Ormskirk- Breast MDT Lead Clinician: Professor Kiire: clement.kiire@nhs.net
MDT Coordinator: Cathy O’Hare: cathy.ohare@nhs.net
Not a Designated Hospital for TYA lead

St Helens and Knowsley- Breast MDT Lead Clinician: Miss Leena Chagla: Leena.chagla@sthk.nhs.uk
MDT Coordinator: Neil Callander: neil.callander@sthk.nhs.uk 01744 646582
TYA Lead Clinician: Dr Majed Gharib: majed.gharib@sthk.nhs.uk

Royal Liverpool and Broadgreen - Breast MDT Lead Clinician: Professor Holcombe: chris.holcombe@rlbuht.nhs.uk
MDT Coordinator: Sarah Cannon: Sarah.cannon@rlbuht.nhs.uk 0151 706 3796
TYA Lead Clinician: Dr Nagesh Kalakonda: nagesh.kalakonda@liverpool.ac.uk

Warrington and Halton- Breast MDT Lead Clinician: Graham Copeland: graham.copeland@whh.nhs.uk
MDT Coordinator: Sue Dawson: Susandawson@nhs.net
Not a Designated Hospital for TYA lead

Wirral University Teaching Hospital- Breast MDT Lead Clinician: Jonathan Mund: Jonathanmund@nhs.net
MDT Coordinator Hannah Camden: Hannah.camden@nhs.net
TYA Lead Clinician Consultant Haematologist: Dr Ranjit Dasgupta: rdasgupta@nhs.net
8.4 CUP Pathway

CUP Breast Patient Pathway

0 Days
- Other Referral
  - Internal Referrals
- 2 Week wait Referral

14 Days
- One stop Clinic
  - Triple assessment
- Reassure & Discharge
- NHSBSP Referral
- MDT Discussion
- Further Investigations
  - E.g. MRI
- Suspected CUP?
  - LCUP/SCUP
  - MDT for further management

62 Days
- Invasive Breast Cancer
- DCIS

Adj Tx
- Neoadjuvant
- Invasive Breast Cancer

Neo Adj Tx
- Invasive Breast Cancer
- Advanced Metastatic Breast Cancer

Follow up
- As per protocol
- End of treatment summary
- Supported self management
- Rehabilitation services

Surgery
- Oncology
- Palliation
  - Surgery
  - Endocrine
  - Oncology
  - SPC
8.4 Breast Rehabilitation Pathway

Clinical Indicators for Referral to Breast Cancer Rehabilitation Pathway:

Patients are at risk of developing or experiencing the following clinical indicators and should be assessed for referral to rehabilitation pathway interventions at all stages in the cancer care pathway as described below:

Consider level of intervention required:

- Information support
- General rehabilitation services
- Specialist oncology/palliative rehabilitation.
- Ensure patient has contact details for timely future access to rehabilitation services (see local cancer services directory - rehabilitation services).

<table>
<thead>
<tr>
<th>Physiotherapy</th>
<th>Lymphoedema Specialist</th>
<th>Occupational Therapy</th>
<th>Dietician</th>
<th>Speech &amp; Language Therapist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficulties with function, movement and symptom control:</td>
<td>Lymphoedema</td>
<td>Difficulties with activities of daily living, leisure and work resulting from:</td>
<td>Nutrition and diet:</td>
<td>Impaired communication, eating and drinking:</td>
</tr>
<tr>
<td>Upper Limb/Trunk movement disorder (especially post-surgery, pre-radiotherapy)</td>
<td>Of upper limb, trunk or neck</td>
<td>Physical symptoms and changes in sensation</td>
<td>Reduced appetite</td>
<td>Coughing/choking on eating or drinking</td>
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<tr>
<td>Difficulty walking and getting around</td>
<td>Physical symptoms and changes in sensation</td>
<td>Upper limb functional impairment</td>
<td>Weight loss, weight management, weight gain</td>
<td>Aspiration related chest infections</td>
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<tr>
<td>Fatigue/tiredness</td>
<td>Fatigue or tiredness</td>
<td>Fatigue or tiredness</td>
<td>Fatigue/tiredness</td>
<td>Food sticking in the throat</td>
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<tr>
<td>Pain</td>
<td>Difficulty walking and getting around</td>
<td>Difficulty walking and getting around</td>
<td>Difficulties swallowing</td>
<td>Weak or hoarse voice/Loss of volume</td>
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<tr>
<td>Breathing difficulties/cough</td>
<td>Impaired balance</td>
<td>Impaired balance</td>
<td>Nausea and vomiting</td>
<td>Difficulty understanding or speaking</td>
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<tr>
<td>Sensory changes</td>
<td>Weakness</td>
<td>Weakness</td>
<td>Information needs</td>
<td>Dry mouth</td>
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<tr>
<td>Body image concerns</td>
<td>Anxiety</td>
<td>Anxiety</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weakness (focal or generalised)</td>
<td>Role and function change</td>
<td>Role and function change</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impaired Balance</td>
<td>Body image concerns</td>
<td>Body image concerns</td>
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</tr>
<tr>
<td>Equipment/ information needs</td>
<td>Cognitive impairment</td>
<td>Cognitive impairment</td>
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<tr>
<td></td>
<td>Equipment/ information needs</td>
<td>Equipment/ information needs</td>
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</table>
8.5 Holistic Care Pathway

[Diagram showing the holistic care pathway with a flowchart of stages and decision points, including diagnosis, treatment, review, and follow-up strategies.]

- Holistic needs assessment
- Written care plan
- Clinical support services
- Education & information
- Other support services

- Recurrence/symptoms/abnormal tests
  - Supported self-management
    - Timely re-access
    - Remote monitoring
    - Consultant led
    - Nurse specialist led
    - Telephone led
    - Primary care led

- Supportive and palliative care
  - Psychological
  - Continence/urinary incontinence
  - Diet & nutrition
  - Sexual issues
  - Lymphoedema

- Transition to end of life care

- End of treatment clinical review
  - Holistic needs reassessment
  - Review care plan

- Treatment summary

- Holistic support services
  - Education & information
  - Physical activity
  - Other support services

- Self-management programmes
  - Information/education days
  - Information prescriptions
  - Primary/local authority, community or privately led exercise schemes
  - Trust led exercise programmes
  - Reablement/social care
  - Finance and benefits
  - Vocational rehabilitation
  - Complementary therapies
  - Voluntary sector/support groups
### Appendix 1.0: Unit Contact Points

<table>
<thead>
<tr>
<th>Trust</th>
<th>Lead Clinician</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aintree University Hospital NHS Foundation Trust</strong></td>
<td>Lee Martin</td>
<td>0151 525 5980</td>
</tr>
<tr>
<td>Clinical Nurse Specialist(s)</td>
<td>Deborah Clark, Dawn Johnson, Donna Murray</td>
<td>0151 525 5980</td>
</tr>
<tr>
<td>MDT Co-ordinator</td>
<td>Debra Power</td>
<td>0151 525 5980</td>
</tr>
<tr>
<td><strong>Countess of Chester NHS Foundation Trust</strong></td>
<td>Liz Redmond</td>
<td>01244 365000</td>
</tr>
<tr>
<td>Clinical Nurse Specialist(s)</td>
<td></td>
<td></td>
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<tr>
<td>MDT Co-ordinator</td>
<td>Julie Watson</td>
<td>01244 365000</td>
</tr>
<tr>
<td><strong>Royal Liverpool &amp; Broadgreen University Hospital NHS Trust</strong></td>
<td>Chris Holcombe</td>
<td>0151 706 2000</td>
</tr>
<tr>
<td>Clinical Nurse Specialist(s)</td>
<td>Susan Holcombe</td>
<td>0151 706 2000</td>
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<tr>
<td>MDT Co-ordinator</td>
<td></td>
<td>0151 706 2000</td>
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<tr>
<td><strong>Southport and Ormskirk Hospital NHS Trust</strong></td>
<td>Sabah Jmor</td>
<td>01704 547471</td>
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<tr>
<td>Clinical Nurse Specialist(s)</td>
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<td></td>
</tr>
<tr>
<td>MDT Co-ordinator</td>
<td>Cathy O’Hare</td>
<td>01704 547471</td>
</tr>
<tr>
<td><strong>St Helens &amp; Knowsley Teaching Hospitals NHS Trust</strong></td>
<td>Leena Chagla</td>
<td>0151 426 1600</td>
</tr>
<tr>
<td>Clinical Nurse Specialist(s)</td>
<td>Chris Bebb</td>
<td>0151 426 1600</td>
</tr>
<tr>
<td>MDT Co-ordinator</td>
<td>Neil Callander</td>
<td>0151 426 1600</td>
</tr>
<tr>
<td><strong>The Clatterbridge Cancer Centre NHS Foundation Trust</strong></td>
<td>Sue O’Reilly</td>
<td></td>
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<tr>
<td><strong>Warrington &amp; Halton Hospitals NHS Foundation Trust</strong></td>
<td>Noaman Sarfraz</td>
<td>01925 635911</td>
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<tr>
<td>Clinical Nurse Specialist(s)</td>
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<tr>
<td>MDT Co-ordinator</td>
<td>Sue Dawson</td>
<td>01925 635911</td>
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<tr>
<td><strong>Wirral University Teaching Hospital NHS Foundation Trust</strong></td>
<td>Joyce Magennis</td>
<td>0151 678 5111</td>
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<tr>
<td>Clinical Nurse Specialist(s)</td>
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<tr>
<td>MDT Co-ordinator</td>
<td>Hannah Camden</td>
<td>0151 678 5111</td>
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