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DIAGNOSIS AND REFERRAL

- C** Women should be encouraged to become aware of the feel and shape of their breasts, so that they are familiar with what is normal for them.
- C** Women should be encouraged to report any change from normal to their general practitioner.
- A** Psychological support should be available to women diagnosed with breast cancer at the clinic.
- Referral from primary to specialist care should be made in accordance with the Scottish Cancer Group referral guideline.

Source of problem	Who to refer	Who to manage in primary care
LUMP	women with any new discrete lump women with any new lump in pre-existing nodularity women with any new asymmetrical nodularity that persists at review after menstruation women with a non lactational abscess or mastitis which does not settle after one course of antibiotics abscess in patient >40 years even after settled (for mammogram) women with any cyst persistently refilling or recurrent cyst women with unilateral axillary lymph node lump	young women <35 years with longstanding tender, lumpy breasts older women with symmetrical nodularity if no localised abnormality young girls with tender developing breasts women with bilateral fatty gynaecomastia without focal abnormality
PAIN	post-menopausal women with unilateral persistent pain women with pain associated with a lump women with intractable pain that interferes with a patient's lifestyle or sleep and which has failed to respond to reassurance or simple measures such as wearing a well-supporting bra and common drugs	women with moderate degrees of breast pain no discrete palpable
NIPPLE SYMPTOM	women <50 years with persistent discharge, which is: bloodstained; (dipstick for blood) or single duct women with bilateral troublesome discharge sufficient to stain outer clothes (ie. would consider surgery) all women >50 years with discharge women with new nipple retraction women with nipple eczema if not elsewhere or unresponsive to topical steroids	women <50 years with nipple discharge from >1 duct, intermittent – not bloodstained (urine dipstick for blood) women with longstanding nipple retraction
SKIN CHANGES	women with skin tethering fixation women with ulceration women with abscess or breast inflammation if not settled after one course of antibiotics women >40 with abscess or inflammation even after settled to exclude underlying cause (mammogram)	women with obvious simple skin lesions, eg sebaceous cysts should be managed as when present elsewhere and not referred to a breast clinic



INVESTIGATION



- B** All patients should have a full clinical examination.
- B** Where a localised abnormality is present, patients should have imaging usually followed by fine needle aspirate cytology or core biopsy.
- B** A lesion considered malignant following clinical examination, imaging or cytology alone should, where possible, have histopathological confirmation of malignancy before any definitive surgical procedure takes place (eg mastectomy or axillary clearance).
- D** Patients should be seen at a one-stop, multidisciplinary clinic involving breast clinicians, radiologists and cytology.
- B** In patients with symptomatic disease two-view mammography should be performed as part of triple assessment (clinical assessment, imaging and tissue sampling) in a designated breast clinic.
- B** Mammography is not recommended in women under the age of 35 years unless there is a strong suspicion of carcinoma.
- C** Magnetic resonance imaging should be considered in specific clinical situations where other imaging modalities are not reliable, or have been inconclusive, and where there are indications that MRI is useful.

Investigation	
Mammography	Must be performed as a part of triple assessment - cannot be used alone to exclude breast cancer. Mammography is not recommended under the age of 35 unless there is a strong clinical suspicion of carcinoma.
Ultrasound	May provide additional information to mammography. Can be useful for focal breast disease in women under 35 years.
Magnetic Resonance	Helpful in symptomatic patients with implants, where Imaging (MRI) ultrasound results have not been diagnostic. May be helpful in women with metastatic deposits in axillary nodes where no primary cancer has been identified.

SURGERY



CONSERVATION SURGERY VERSUS MASTECTOMY



- A**
 - All women with **early stage** invasive breast cancer who are candidates for breast conserving surgery should be offered the choice of breast conserving surgery (*excision of tumour with clear margins*) or modified radical mastectomy.
 - The choice of surgery must be tailored to the individual patient, who should be fully informed of the options and who should be aware that breast irradiation is required following conservation and that further surgery may be required if the margins are positive.
- C** Breast conserving surgery is contraindicated if:
 - the ratio of the size of the tumour to the size of the breast would not result in acceptable cosmesis
 - there is multifocal disease or extensive malignant microcalcification on mammogram
 - there is a contraindication to local radiotherapy (*eg previous radiotherapy at this site, connective tissue disease, severe heart and lung disease, pregnancy*).

- C** The possibility of breast reconstruction should be discussed with all patients prior to mastectomy.

SURGICAL MANAGEMENT OF THE AXILLA



- A** Axillary surgery should be performed in all patients with invasive breast cancer.

MANAGEMENT OF DUCTAL CARCINOMA IN SITU



- B** Women with ductal carcinoma in situ who are candidates for breast surgery should be offered the choice of lumpectomy or mastectomy.
- A** Women who have undergone breast conserving surgery should be offered postoperative breast irradiation.
- The benefits and harms of hormonal therapy should be discussed with women with ductal carcinoma in situ and treatment decisions made based on individual circumstances.

TIMING OF SURGERY AND CHEMOTHERAPY



- B** All treatments for patients with early breast cancer should be started as soon as is practical. Young women with oestrogen receptor negative tumours may benefit particularly from early initiation of chemotherapy following surgery.

Procedure	
Axillary node sample	picks out a minimum of four individual lymph nodes from the axillary fat. Suitable for staging only.
Axillary node clearance	block dissection of the axillary contents <ul style="list-style-type: none"> ▪ level 1 - up to the lateral border of pectoralis minor ▪ level 2 - up to the medial border of pectoralis minor ▪ level 3 - up to the apex of the axilla
Sentinel node biopsy	selective removal of the first draining nodes



RADIOTHERAPY



ADJUVANT RADIOTHERAPY



- A** Radiotherapy should be given following mastectomy or breast conserving surgery to reduce local recurrence where the benefit to the individual is likely to outweigh risks of radiation related morbidity.
- D** The supraclavicular field should be irradiated in all patients with four or more positive axillary nodes.

SYSTEMIC THERAPY



ADJUVANT CHEMOTHERAPY



- A** All women under the age of 70 years, with early breast cancer should be considered for adjuvant chemotherapy.
- C** Women with ER-positive tumours who receive chemotherapy should be considered for additional endocrine therapy, especially if they are under 35 years.

NEOADJUVANT CHEMOTHERAPY



- A** Neoadjuvant chemotherapy should be considered for women with large cancers as it improves the rate of breast conservation and is not detrimental to long term outcome.

ANTHRACYCLINE AND TAXANE THERAPY



Taxanes are active in the adjuvant setting, but although they have been shown to improve upon some adriamycin-based regimens, there are not yet any published data that they offer additional survival benefits over optimal anthracyclines regimens.

- A** Anthracyclines should be prescribed in preference to non-anthracycline regimens in the adjuvant setting, as they offer additional benefits. Epirubicin may be preferred as it causes less cardiac adverse effects.
- A** Taxanes should be considered in patients with advanced disease.

BIOLOGICAL THERAPIES



- C** Trastuzumab should be reserved for those patients whose tumours have HER2 over-expression.
- A** Combination therapy of trastuzumab with a taxane is recommended in women with metastatic breast cancer as it is associated with a survival advantage compared to taxane therapy alone.

VINORELBINE AND CAPECITABINE THERAPY



- A** Either capecitabine or vinorelbine should be considered for patients with advanced breast cancer.

BISPHOSPHONATES



- A** Bisphosphonates should be routinely used in combination with other systemic therapy in patients with metastatic breast cancer with bone metastases. The choice of agent for an individual patient depends on individual circumstances.

ENDOCRINE THERAPY



- A** Premenopausal women whose tumours are not shown to have absent oestrogen or progesterone receptors should be considered for adjuvant endocrine therapy.
- A**
- In postmenopausal women with breast cancer tamoxifen remains the treatment of choice as initial therapy in the adjuvant setting. If there are relative contraindications to its use (*high risk of thromboembolism or endometrial abnormalities*) or intolerance, an aromatase inhibitor can be used in its place.
 - Postmenopausal patients should be considered for a switch to an aromatase inhibitor after either two to three years or after five years of tamoxifen therapy.
 - In postmenopausal women with advanced disease, third generation aromatase inhibitors should be considered before either tamoxifen or megestrol acetate.
- A** In advanced disease, the combination of tamoxifen plus ovarian ablation should be offered ahead of tamoxifen therapy alone.

TIMING OF SURGERY AND CHEMOTHERAPY



- C** All treatments for patients with early breast cancer should be started as soon as is practical. Young women with oestrogen receptor negative tumours may benefit particularly from early initiation of chemotherapy following surgery.

MANAGEMENT OF MENOPAUSAL SYMPTOMS



- B** Megestrol acetate or depot intramuscular medroxyprogesterone acetate may be considered to control the severity of hot flushes in women with breast cancer.



PSYCHOLOGICAL CARE



THE ROLE OF THE BREAST CARE NURSE



C All women with a potential or known diagnosis of breast cancer should have access to a breast care nurse specialist for information and support at every stage of diagnosis and treatment.

Contact details and information about the role of the breast care nurse should be available to the patients, their families and all the members of the multidisciplinary team including the primary care team.

IDENTIFYING DISTRESS



B The measurement of the presence of psychological symptoms in women with breast cancer should be tailored to the individual circumstances of the patient (eg presence of high level of distress or risk factors for problems).

B Routinely administered questionnaires are not recommended for the detection of clinically significant psychological symptoms in women with breast cancer who do not have risk factors for severe anxiety or distress.

- Breast cancer services should routinely screen for the presence of distress and risk factors for very high levels of distress from the point of diagnosis onwards (including during follow up review phases).
- Multidisciplinary teams should have agreed protocols for distress assessment and management. These should include recommendations for referral and care pathways.

Characteristics of the individual

Younger
Single, separated, divorced or widowed
Living alone
Children younger than 21 years
Economic adversity
Lack of social support, perceived poor social support
Poor marital or family functioning
History of psychiatric problems
Cumulative stressful life events
History of alcohol or other substance abuse

Characteristics/stages of disease and treatment

At the time of diagnosis and recurrence
During advanced stage of the disease
Poorer prognosis
More treatment side effects
Greater functional impairment and disease burden
Experiencing lymphodema
Experiencing chronic pain
Fatigue

Source: Clinical Practice Guidelines for Psychosocial Care of Adults with Cancer

PSYCHOLOGICAL SUPPORT FOR WOMEN WITH BREAST CANCER AND THEIR FAMILIES



A Group psychological interventions should be available to women with breast cancer who feel it would suit their needs. Supportive expressive therapy has been shown to be effective in advanced cancer and cognitive behavioural therapy for localised, locoregional or advanced disease.

A Cognitive behavioural therapy (in group or individual format according to preference and availability) should be offered to selected patients with anxiety and depressive disorders.

A Computer and telephone-based interventions should not routinely be offered to patients.

COMMUNICATION METHODS



A

- Women with breast cancer should be offered audiotapes or follow up summary letters of important consultations.
- Clinical encounters with women with breast cancer should facilitate patient choice about treatment decisions (*assuming patients wish to participate in the decision making process*).
- Written agendas, prompt sheets & decisions aids should be used to improve communication with women with breast cancer.
- Clinicians should be encouraged to attend validated training in communication skills.

FOLLOW UP AND PALLIATIVE CARE



C Mammography should be used to detect recurrence in patients who have undergone previous treatment for breast cancer.

B Routine diagnostic tests to screen for distant metastases in asymptomatic women should not be performed.

B Patients with breast cancer should have access to input from a specialist palliative care team.



**T • PRIMARY TUMOUR**

- TX** Primary tumour cannot be assessed
- T0** No evidence of primary tumour
- Tis** Carcinoma in situ: intraductal carcinoma, or lobular carcinoma in situ, or Paget disease of the nipple with no tumour¹
- T1** Tumour 2cm or less in greatest dimension²
- T1mic Microinvasion 0.1cm or less in greatest dimension
 - T1a More than 0.1cm but not more than 0.5cm in greatest dimension
 - T1b More than 0.5cm but not more than 1cm in greatest dimension
 - T1c More than 1cm but not more than 2cm in greatest dimension
- T2** Tumour more than 2cm but not more than 5cm in greatest dimension
- T3** Tumour more than 5cm in greatest dimension
- T4** Tumour of any size with direct extension to chest wall³ or skin
- T4a Extension to chest wall
 - T4b Oedema (including peau d'orange), or ulceration of the skin of the breast, or satellite skin nodules confined to the same breast
 - T4c Both 4a and 4b, above
 - T4d Inflammatory carcinoma⁴

N • REGIONAL LYMPH NODES

- NX** Regional lymph nodes cannot be assessed (eg previously removed)
- N0** No regional lymph node metastasis
- N1** Metastasis to movable ipsilateral axillary node(s)
- N2** Metastasis to ipsilateral axillary node(s) fixed to one another or to other structures
- N3** Metastasis to ipsilateral internal mammary lymph node(s)

M • DISTANT METASTASIS

- MX** Distant metastasis cannot be assessed
- M0** No distant metastasis
- M1** Distant metastasis

Notes:

1. Paget disease associated with a tumour is classified according to the size of the tumour
2. Microinvasion is the extension of cancer cells beyond the basement membrane into the adjacent tissues with no focus more than 0.1cm in greatest dimension. When there are multiple foci of microinvasion, the size of only the largest focus is used to classify the microinvasion. (Do not use the sum of all the individual foci.). The presence of multiple foci of microinvasion should be noted, as it is with multiple larger invasive carcinomas.
3. Chest wall includes ribs, intercostal muscles, and serratus anterior muscle but not pectoral muscle
4. Inflammatory carcinoma of the breast is characterized by diffuse, brawny induration of the skin with an erysipeloid edge, usually with no underlying mass. If the skin biopsy is negative and there is no localized measurable primary cancer, the T category is pTX when pathologically staging a clinical inflammatory carcinoma (T4d). Dimpling of the skin, nipple retraction, or other skin changes, except those in T4b and T4d, may occur in T1, T2, or T3 without affecting the classification.

Source: International Union Against Cancer (UICC). TNM Classification of malignant tumours. Edited by L.H. Sobin and Ch. Wittekind.. 5th ed. New York: Wiley-Liss; 1997.

ABBREVIATIONS

5-FU	Fluorouracil	•	HRT	Hormone replacement therapy
AR	Absolute risk	•	IMC	Internal mammary (node) chain
BCS	Breast conserving surgery	•	LHRH	Luteinizing hormone-releasing hormone
CI	Confidence interval	•	LRF	Loco-regional failure
CMF	Cyclophosphamide, methotrexate and 5-fluorouracil	•	MRI	Magnetic resonance imaging
CT	Chemotherapy	•	NHSBSP	NHS Breast Screening Programme
DCIS	Ductal carcinoma <i>in situ</i>	•	NICE	National Institute for Health and Clinical Excellence
ECG	Electrocardiogram	•	NS	Not significant
EORTC	European Organisation for Research and Treatment of Cancer	•	NSABP	National Surgical Adjuvant Breast and Bowel Project
ER	Oestrogen receptor	•	OR	Odds ratio
FISH	Fluorescence in situ hybridization	•	PMRT	Postmastectomy radiotherapy
FNAC	Fine needle aspirate cytology	•	QLQ-C30	European Organisation for Research and Treatment of Cancer Quality of Life Questionnaire
G-CSF	Granulocyte colony stimulating factor	•	RCT	Randomised controlled trial
GP	General practitioner	•	RR	Relative risk
Gy	Gray	•	RT	Radiotherapy
HAD	Hospital anxiety and depression scale	•	SIGN	Scottish Intercollegiate Guidelines Network
HER2	Human epidermal growth factor receptor 2	•	TTP	Time to progression
HR	Hazard ratio	•		

