

WA Cancer & Palliative Care Network

Breast Cancer Model of Care

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Government of **Western Australia**
Department of **Health**



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Introduction

Cancer is the leading cause of death in Western Australia, representing 30.6 per cent of all deaths in 2006. Population ageing will significantly increase the number of new cases of cancer over the next ten years, with an estimated 10,000 more cases per annum in Western Australia by 2016. In 2006, 1244 Western Australians were diagnosed with breast cancer and 229 died as a result of the disease.

Cancer is a complex disease to diagnose and treat, and represents a significant burden to patients and their families, the health system, and the community at large. Western Australia's strategic and planned approach to cancer reform includes the establishment of a Ministerial Taskforce for Cancer and implementation of the '*Fighting Cancer*' policy and '*A Cancer Services Framework for Western Australia*'.

Two significant directions of the Cancer Services Framework are the establishment of integrated cancer services in metropolitan and regional Western Australia, and the development and improvement of service delivery through a tumour streams model.

Since 2004, eight integrated cancer services have been established in metropolitan and regional Western Australia, based on specified geographic populations. The philosophy of an integrated cancer service is that hospitals as well as primary and community health services develop integrated care and defined referral pathways for the populations they serve. This requires effective collaboration between hospitals and community-based services, including general practitioners. This will promote more effective local coordination of care for cancer patients, and a more rational, evidence-based approach to cancer service planning and delivery.

The Cancer Services Framework also recommended that organ or system-specific tumour streams be adopted to optimize the delivery of care. The reasoning behind the tumour streams is that a consistent approach to clinical management founded on evidence-based practice will reduce unacceptable variations in care across the state.

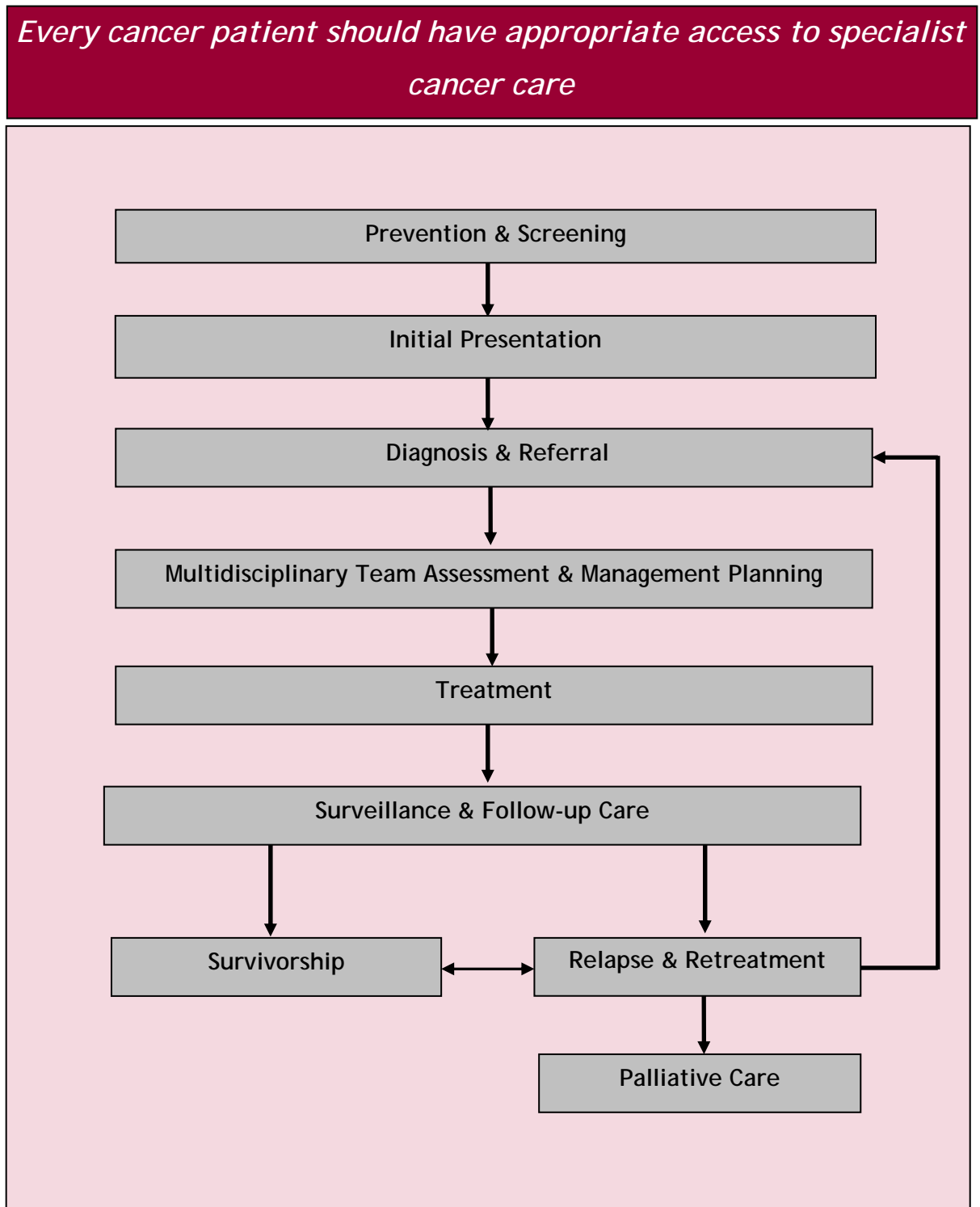
Models of Care

This document outlines a model of care for the management of breast cancer in Western Australia. It is designed to be a statement defining best practice care and services within the health care system for a person with breast cancer at each stage of the condition. The WA CPCN Model of Care for Cancer 2008 provides the basis for this tumour site-specific model of care.

http://www.healthnetworks.health.wa.gov.au/modelsofcare/docs/Cancer_Model_of_Care.pdf

The nine steps in figure 1 describe the patient-centred journey designed to provide safe, high quality, evidence-based multidisciplinary care thereby resulting in optimum outcomes. Underpinning this journey is the integration of primary care, supportive care, psycho-oncology and palliative care. Models of care can be accessed at <http://www.healthnetworks.health.wa.gov.au/modelsofcare/>.

Figure 1: Cancer Patient Journey





1 Prevention & Screening

This step discusses the potential of screening in reducing breast cancer incidence, identifies screening programs for women with both average and higher than average risk of developing breast cancer, and outlines symptoms that require further investigation by the general practitioner.

1.1 Prevention

Although there have been significant falls in the mortality rate from breast cancer in the last ten years in Western Australia this is largely due to improvements in screening and treatment. In contrast, there has been no similar reduction in the incidence of the disease, emphasizing the need for improved preventative strategies. Modifications to a number of lifestyle factors have the potential to reduce breast cancer incidence including levels of physical exercise, vegetable consumption, alcohol intake and obesity. The Cancer Council of Australia has produced 'The National Cancer Prevention Policy 2007-2009'¹ which details the structure and evidence base for previous, existing and future potential interventions.

Interventions of potential benefit include:

- **Sustained community educational programmes** - Programmes such as the 'Go for 2 & 5' Campaign in Western Australia have produced measurable changes in behaviour. Public service education programmes at a state level should continue with studies of manipulation of content to maximize impact including targeting information on lifestyle modification benefits to specific conditions.
- **Education in primary care** – The family doctor is also a valuable resource with 86% of the population visiting a GP at least annually². Moderate to high-level counselling in this setting have also been shown to bring about behavioural change. Details of risk factors and interventions are presented in 'Guidelines for preventative activities in general practice – The Red Book'² complemented by an outlining of preventative strategies in 'Putting Prevention into Practice - The Green Book'³. Primary care givers should explore ways to incorporate lifestyle education into existing or dedicated consultations supported by the health system through appropriate remuneration.
- **School and Workplace Initiatives** - also represent an opportunity to modify nutritional habits in a significant proportion of the population through food availability, and exercise patterns through school initiatives. Schools and employers should be encouraged and assisted to provide appropriate nutrition and exercise opportunities.
- **Chemoprevention of breast cancer** - is an area of current active research and should be monitored. Selective Estrogen Receptor Modulators such as tamoxifen and raloxifene can reduce risk of estrogen receptor (ER) positive breast cancer by approximately 50% in selected groups although the potential side effects of endometrial cancer and thromboembolism are concerns that have prevented widespread prophylactic usage⁴. Prophylactic usage may be appropriate in some high-risk women but should be under the direction of a specialist service as detailed in 'Screening: high risk subjects' below. Aromatase inhibitors hold the potential for greater preventative benefits with less toxicity. The IBIS 2 trial comparing anastrozole to tamoxifen in high risk women is open for recruitment in Perth at Sir Charles Gairdner Hospital. Potentially suitable candidates may be referred for consideration of recruitment through the breast clinic of either Royal Perth or Sir Charles Gairdner Hospitals.



1.2 Screening

In common with all cancers, breast cancer outcomes are significantly superior for earlier stage disease and hence early detection, particularly in the asymptomatic patient, has the potential to reduce mortality.

1.2.1 Breast Examination

Meta-analyses show that self-examination does not impact on stage at diagnosis or mortality from breast cancer and thus is not routinely recommended^{5,6}. However, as more than half of breast cancers are found after the women notices a breast change, 'breast awareness' is advocated by the National Breast Cancer Centre with encouragement to gain familiarity with the normal breast and to report any new or unusual breast changes.

Similarly there is no evidence that routine breast examination by a clinician is a useful screening tool in average risk women⁶ although this is often included in surveillance protocols for higher risk women, particularly BRCA mutation carriers.

1.2.2 Mammography

Screening mammography is the best method available for early breast cancer detection providing a 25% risk reduction of dying of breast cancer in women aged 50 to 69 years⁷. The national breast cancer screening program, BreastScreen Australia, commenced in 1991. Invitations are sent to women 50-69 every two years. Additionally mammography is available on request for women who are 40-49 years or > 70 years. Screening services are delivered through specialised units, both fixed and mobile, that provide a multidisciplinary assessment of screen-detected abnormalities including cytological or histological breast cancer diagnosis. Recruitment is by direct mailings from electoral roles and by client direct contact or referral as a result of community education, advertising, promotional materials and health care providers.

National and state Cancer Councils support BreastScreen Australia through community and professional education, promotional literature and the Cancer Council Hotline. The Cancer Council of WA also supports the service through the running of the cancer registry allowing monitoring of cancer rates and mortality.

The participation rate in the period 2005-2006 was 57.2 % for the target population, as compared to a range across Australia of 44.4% to 63.1%. There is an under-representation by Indigenous women. A 70% two-yearly participation rate has been stated as the target for the service by the Cancer Council¹.

1.2.3 Surveillance for High Risk Subjects

Some individuals are at particularly high risk of breast cancer and should be incorporated in appropriately more intensive screening schedules including:

- Patients with strong family histories including BRCA carriers
- Women who have received chest radiation aged 10-30
- Women having been previously diagnosed with DCIS or invasive malignancy

Surveillance programs for many of these individuals should include review by appropriate specialists such as the Familial Cancer Clinic of the Genetic Services of WA, breast physicians and surgeons. Prophylactic surgery or anti-estrogens may be considered.



MRI is a more sensitive than mammography in many situations and is the appropriate screening tool for very high risk women under 50. Funding for this should be a priority. Weighed against the increased sensitivity for more general screening is the higher false positive rate and the consequent increase in biopsies showing benign disease.



2 Initial Presentation

Entry into the diagnostic system may come through breast screening (described above) or through recognition of symptoms or signs by the patient or their health care professionals.

2.1 Recognition of Symptoms and Signs

The following warrant GP consultation and potential further investigation:

- a lump or lumpiness in breast or axilla
- change in the shape or appearance of the breast, such as dimpling or redness
- an area that feels different from the rest
- discharge from the nipple
- changes in nipple appearance such as scaliness, inversion or retraction
- breast pain, particularly localised, new or without cyclic variation
- any other unusual breast change a patient notices

2.2 Initial Medical Consultation

Initial consultation with a GP should be within 2 weeks with patient calls being triaged to achieve this and to facilitate more rapid assessment where appropriate.

2.3 Initiation of Investigation

GP consultation should include a general, reproductive and breast history and examination of the breast and draining lymph node sites. Symptoms and signs appropriate for further investigation are covered in detail in the NBOCC document 'The Investigation of a New Breast Symptom'⁸.



3 Diagnosis and Referral

This step deals with the investigations that may be required to confirm the diagnosis of cancer and assess the extent (staging) of the disease. This may involve complex tests in different departments/locations and wherever possible should be coordinated to improve patient convenience and well being. Fast track, coordinated diagnostic pathways should be implemented at a system level. The NBOCC website (www.nbcc.org.au) incorporates information on breast cancer service elements available at all hospitals in the state to guide the referral process.

3.1 Routes of investigation

Where deemed appropriate initial referral may be:

- To a public hospital diagnostic clinic incorporating diagnostic imaging and biopsy with associated automatic surgical referral and assessment as appropriate
- To a basic public or private diagnostic service incorporating imaging and biopsy but requiring subsequent referral on receipt of positive results
- For imaging alone requiring further referral for biopsy and subsequent management if required.
- Ideally, whichever route is pursued, where biopsy is deemed appropriate results should be available within two weeks of initial GP referral.

3.2 Biopsy

The patient should be referred for non-excisional biopsy (fine needle aspiration or core biopsy). Indications and limitations of the procedures are discussed in '*Breast fine needle aspiration cytology and core biopsy; a guide for practice – NBOCC 2005*⁹.

Points of relevance include:

- The clinician's patient load and experience in performing FNA cytology and core biopsy have been demonstrated to influence performance.
- Clinicians performing these procedures should regularly audit their sampling accuracy for malignant lesions and the rate of inadequate specimens submitted.
- Imaging guidance, ultrasound or stereotactic mammography, is required to ensure accuracy of sampling when lesions are impalpable, small or difficult to palpate.

3.3 Conveying a Diagnosis of Malignancy

Clearly the initial conveying of a diagnosis of malignancy may cause severe psychological distress. General recommendations for such communications are:

- An arrangement to provide results should be made preemptively and in a timely fashion relative to the procedure
- Where possible conveyance of a malignant diagnosis should be made in person
- Arrangements should be made for a support person to be present where possible
- Such report provision should be coordinated by a managing clinician who can also provide contextual information



- Access to specialist counsellors or psychologists should be provided. The NBOCC provide a checklist 'Psychosocial Care Referral Checklist for Patients with Cancer'¹⁰ available on their website – www.nbcc.org.au .
- The '*My Journey Kit*' provides a comprehensive information resource for newly diagnosed patients, available through Breast Cancer Network Australia (www.bcna.org.au/).

3.4 Surgical Referrals

Referral to a surgeon should include clinical information, medical and psychosocial background, radiological films and results, and pathology reports. Information thus far imparted to the patient is also valuable in managing communication. Ideally surgeons should see patients within 2 weeks of referral, facilitated, where necessary, by direct communication with the surgeon.

Evidence exists that specialist surgeons who perform a higher volume of breast surgery have superior results in terms of mortality than those carrying out less procedures. The characteristics of the surgeon are at least as important as those of the institution¹¹. A list of accredited surgeons can be found in the 'Find a Breast Surgeon' section on the Royal Australasian College of Surgeons website – www.surgeons.org .

3.5 Assessing Familial Risk

Between 1 per cent and 5 per cent of all breast cancers are due to the inheritance of a small number of cancer related genes. Referral to a familial cancer centre if the clinician is unsure of management or the person is at high risk of familial cancer (a family history of cancer in first- and second-degree relatives) may be appropriate. In WA services are available at Royal Perth Hospital, Sir Charles Gairdner Hospital and King Edward Memorial Hospital for Women.



4 Assessment & Treatment Planning

Evidence demonstrates that breast cancer survival is improved when management is in a multidisciplinary team (MDT) care setting¹². Thus, all patients should have MDT access to plan the management of their cancer. It is essential that a cancer specialist lead the multidisciplinary approach.

4.1 The Multidisciplinary Team

The composition and conduct of a MDT meeting is described in the NBOCC document '*Multidisciplinary meetings for cancer care: A guide for health service providers*'¹³. The MDT comprises (in alphabetical order):

- breast care nurse
- breast surgeons
- general practitioner
- medical oncologist
- pathologist
- radiation oncologist
- radiologist
- social worker

Additionally, access should be available to:

- palliative care service for patients with locally advanced or metastatic cancers.
- plastics (where reconstruction is a consideration)
- psycho-oncology services where appropriate (psychologist/psychiatrist).

The lead role in the MDT for a case will be determined by the team and must take responsibility for the activity of the team. In most cases the specialist who makes referral to the MDT, most frequently the breast surgeon, will take the lead until responsibility is passed to another practitioner. The MDT must be adequately resourced to undertake the following meeting structure and subsequent plan dissemination.

4.2 The Multidisciplinary Meeting

Meetings should be at least monthly at mutually convenient times and locations for participants. MDT management should be available to all patients no matter where they live. It is expected that patients in rural and remote areas will have access to this care and that this will be co-ordinated by their GP, local specialist or cancer nurse coordinator using video-conferencing or assisted travel where appropriate.

- Ideally, case discussion should occur prior to surgery, particularly in locally advanced and metastatic cancers where surgery may not be the initial treatment.
- All patients should be discussed once pathologic staging is known.
- Further investigation and subsequent representation to the MDT may be required.

4.3 MDT Treatment Care Plan

- Specifies and documents who will be the primary treating specialist
- Fully documents the agreed care plan



- The agreed care plan should be circulated to all relevant members of the team.
- The progression of care within the MDT should be coordinated ensuring that the patient and all caregivers understand their responsibilities for delivering this care.
- GP's should be informed of the planned treatment and their role in this plan
- The patient, and (with the patient's consent) the family, should be involved in all discussions regarding treatment options.



5 Treatment

This step is concerned with the type of treatment that will be delivered, who will provide it and where it should be provided to ensure safe, high quality and effective care.

5.1 Surgery

The majority of patients will be offered surgery as primary management. In locally advanced or metastatic cancers, surgery may be indicated after initial systemic or radiotherapy. The institution level of service should be such as to allow surgery in a prompt timeframe relative to diagnosis. Ongoing audit of outcomes should be an intrinsic part of service delivery.

5.1.1 Training and experience of surgeons.

- Surgical services should be provided by credentialed and accredited surgeons (FRACS or equivalent) as discussed in 3.4 'Surgical Referral'. The RACS provides accreditation and audit tools.

5.1.2 Institutional Facilities

Surgery should be performed in institutions (usually tertiary and secondary hospitals) that provide appropriate facilities including:

- surgeons as specified in 5.1.1
- breast care nursing
- anaesthetic services
- access to radiology with breast cancer expertise, where localisation modalities are required prior to surgery
- access to sentinel node biopsy if appropriate (includes nuclear medicine services)
- access to reconstructive services when appropriate.

5.1.3 Psychological Aspects of Surgical Choice

Psychological effects from mastectomy scars, the use of a breast prosthesis and the development of lymphoedema can be both short and longer term. Providing patients with tailored accurate information prior to treatment, facilitating patient decision making about appearance-altering treatment, and meeting others with similar personal experience may assist some people.

5.1.4 Pathological Services

Tissue diagnosis is essential in the management of breast cancer. Histological information is required to:

- confirm complete excision with appropriate margins in resectable cases
- assess risk of recurrence in the adjuvant setting
- define potential sensitivities to adjuvant endocrine and HER2 targeted treatments
- define treatment options in the metastatic setting

Pathological assessment is hence a cornerstone of treatment planning and synoptic reporting is encouraged. Guidelines for pathological processing and reporting in breast cancer are given in the NBOCC publication '*The pathology reporting of breast cancer*¹⁴'.



5.2 Radiation Treatment

5.2.1 Appropriate Patients for Radiotherapy

Radiotherapy may be of benefit for:

- breast conservation patients (with rare exclusions)
- high risk post-mastectomy patients (to be defined by MDT discussion)
- definitive treatment of locally advanced disease
- palliation of symptoms due to secondary deposits
- treatment of loco-regional recurrence

Audit of outcomes should form a routine part of service delivery.

Because treatment is limited to tertiary referral centres infrastructure should be available to provide transport and/or accommodation for patients living a significant distance from treating centres. Details of eligibility for transport funding are available¹⁵.

5.2.2 Treating Radiation Oncologist

Radiation treatment should be given by a radiation oncologist (FRANZCR or equivalent) with adequate training and experience that enables institutional credentialing and agreed scope of practice within this area.

5.2.3 Institutional Facilities

Radiation treatment should be performed in accredited institutions with experience in complex treatment planning. This should include the availability of:

- radiation oncologists as specified in 5.2.2
- nurses with oncology expertise
- radiation oncology medical physicists
- radiation therapists
- dual modality LINACS
- CT planning facilities
- treatment planning systems

5.3 Drug Therapy

Drug therapy including chemotherapy, endocrine therapy and other targeted treatments are usually given to patients who are at high risk of relapse with appropriate tumour characteristics and who may benefit from adjuvant therapy. Drug treatment also forms the basis of most metastatic breast cancer treatment strategies. Pathological staging including ER, PR and HER2 (IHC +/- *in situ* hybridisation) testing should be routine on all invasive cancers to direct treatment as described in 5.1.3.

5.3.1 Treating Medical Oncologist

Drug therapy should be given by a Medical Oncologist (FRACP or equivalent) with adequate training and experience that enables institutional credentialing and agreed scope of practice within this area. Assessment by a medical oncologist, where deemed appropriate by the MDT, should take place within 4 weeks of the completion of surgery (excluding reconstructive procedures).



5.3.2 Institution Facilities

Staff requirements to ensure safe delivery of chemotherapy include:

- a medical oncologist as described in 5.3.1.
- nurses with adequate training in chemotherapy delivery, complications of administration and the handling and disposal of cytotoxic waste.
- a pharmacist with adequate training in chemotherapy medications and preparation

Less complex therapies may be given in secondary, regional or primary care settings (where no medical oncologist is locally available) by another medical practitioner or nurse chemotherapy provider with training and experience that enables credentialing and agreed scope of practice. This should be in accordance with a detailed treatment plan arising from a MDT setting, and should be under the supervision of a medical oncologist with communication as required.

Facilities for safe administration of drug therapy include:

- Access to haematology testing
- Readily available advice within and after hours
- A clearly defined pathway to emergency care
- Experience in the care of neutropenic patients
- Appropriate pharmacy facilities for preparation of cytotoxics or provision of cytotoxics from such a facility to a secondary institution.
- Guidelines and protocols for the safe administration of drugs including management of extravasation

5.3.3 Treatment Protocols

A range of guidelines for the application of adjuvant systemic therapies are available^{15,16,17}. These should be utilised or drawn on for the creation of departmental protocols to ensure evidence-based best practice is uniformly applied. Protocols should be reviewed regularly and updated in the light of newly emerging data. Guidelines should include:

- Indications for systemic treatment – chemotherapy, hormonal and targeted therapies
- Dose adjustments for chemotherapy relating to organ function and observed toxicities
- Management protocols for toxicities eg neutropenia, cardiac impairment.

5.4 Supportive Therapies

Identifying and assessing the supportive care needs of women with breast cancer involves a general assessment of the physical, psychological, social, information and spiritual needs which will vary widely between individuals. At different points in the management of a breast cancer benefit may be obtained from a range of supportive therapies or measures to address these needs.

- **Lymphoedema Management** – Information about avoiding activities that may lead to the development of lymphoedema is important. Further information is available at www.lymphoedema.org.au/. When present, lymphoedema may impact on the ability to perform ordinary tasks and can also result in psychological distress. Contacts for lymphoedema associations and support groups may be obtained from web sites such as www.lav.org.au/ or www.lymphoedema.org.au/. Referral to physiotherapist or trained lymphoedema massage specialist may be needed.



- **Fertility and pregnancy issues** - Discussion may be required regarding the selection of appropriate contraception and the potential for loss of fertility as a result of treatment. Options for preservation of fertility are available dependant on the circumstances of the individual. A fertility advisory service is available in WA through King Edwards Memorial Hospital for Women with the potential for rapid assessment if needed to avoid treatment delays.
- **Management of Menopause** - Atrophic vaginitis and dyspareunia, and endocrine changes that may alter libido and orgasm may require sensitive discussion. Hot flushes either as a result of treatment-related menopause or as a consequence of anti-estrogen therapy can be debilitating. Both lifestyle advice and a range of non-endocrine pharmacological interventions may be beneficial for these. Early menopause, often coupled with aromatase inhibitor treatment, also increases the likelihood of osteoporosis requiring monitoring and potentially pharmacological management. Many of these issues will be dealt with by the members of the MDT involved in follow-up. Additionally, the 'Menopausal Symptoms After Cancer' (MSAC) clinic at King Edwards Memorial Hospital for Women provides a comprehensive service managing these issues. Contact and referral information is available at <http://www.kemh.health.wa.gov.au/services/menopause/msac.htm>
- **Chronic Pain Management** – A proportion of patients will experience a variety of pain syndromes following breast cancer surgery which may persist for months to years. Both prescription of analgesics and, in refractory cases, referral to specialist pain clinics for management including nerve block procedures may be required.
- **Psychological Issues** - High level of intrusive symptoms, such as recurrent thoughts about the cancer diagnosis, or aspects of treatment may interfere with daily activities. Patients should be screened to identify those at high risk of anxiety or depression at each visit. Strategies such as information provision, relaxation techniques, meditation and a referral to psychologist or psychiatrist as required may be helpful. Specialist services providing psychological support for up to three years after a diagnosis of breast cancer are available at Royal Perth Hospital and Sir Charles Gairdner Hospital. A telephone counseling service is also available on 08 92241629.
- **Financial Support** - The additional costs related to breast prostheses, wigs, lymphoedema garments and treatment and reconstructive surgery may have a significant financial impact. Referral to a social worker for further assessment and identification of appropriate funding support may be required.



6 Surveillance & Follow-Up Care

This step concerns the monitoring of the adjuvant patient following initial treatment. The aim is the early detection of disease relapse. Follow-up care also involves the management of symptoms arising from both previous or current treatments and from active disease. It also provides reassurance to patients who remain free of disease. A clear documented plan of surveillance should be established and be available to the patient. Multiple visits to multiple specialists should be avoided.

6.1 Follow-up Schedules

Numerous guidelines are available with similar recommendations including:

- National Health & Medical Research Council of Australia 2001¹⁶
- American Society of Clinical Oncology 2006¹⁹

However, despite the large numbers of patients involved there is a paucity of data regarding the optimal basic timetable of follow-up appointments, with guidelines generally recommending established but arbitrary appointment schedules. Stratification of patients to differing intensities of follow-up dependant on recurrence risk would appear reasonable.

6.2 Aims of Follow-up

The established aims of follow-up are:

- **Early detection of potentially curable locoregional disease.** In a recent analysis, 10-year cause-specific survival was 62% for local recurrence following breast-conserving treatment as compared to 40% for local recurrence after mastectomy²⁰. A recent meta-analysis found early detection of local recurrences improved survival compared to those with delayed detection²¹.
- **Detection or exclusion of metastatic disease** No trial of intensive routine investigation protocols has shown any survival advantage. Current policy is to investigate symptoms or signs of concern, both those detected at routine review and those reported in intervals by patients.
- **The supervision of anti-estrogen protocols.** With the demonstration of survival benefits from the inclusion of aromatase inhibitors in anti-estrogen protocols, particularly with switch and extension strategies, anti-estrogens treatments are more complex. Additionally, toxicities of anti-estrogens require monitoring and not infrequently intervention or drug changes.
- **The encouragement of optimum lifestyle measures.** See survivorship below.
- **Collection of follow-up data for quality control.** Follow-up data on relapse, survival and treatment toxicity is important both for internal department audit and for trial outcome assessments.



6.3 Composition of Follow-up

Actions occurring during follow-up should include:

1. Interview for:

- symptoms suggestive of recurrence
- Treatable side-effects of previous therapy eg neuralgia, lymphedema
- toxicities of ongoing endocrine or HER2-based therapy

2. Examination of:

- Ipsilateral breast and chest wall and contralateral breast
- Ipsilateral LN
- Systems for pleural fluid & hepatomegaly

3. Investigation:

- Annual mammography
- Initial bone densitometry on aromatase inhibitors with repeats as indicated
- If symptoms suggestive of recurrence occur blood tests and scans as appropriate
- Non-menstrual PV bleeding on tamoxifen

4. Education

See survivorship below.

N.B. Routine scans and blood test in the absence of symptoms or signs have been shown to have no effect on survival. Patients may need reassurance on this point as such surveillance is commonly anticipated.

6.4 Persons involved in follow-up care

Not all disciplines need to be involved in longer term follow-up. The MDT decides on the lead clinician who will coordinate follow-up, in consultation with the GP

- Responsibility for follow-up investigations needs to be agreed between the designated lead clinician, the GP and the patient, with an agreed plan documented
- The GP or MDT member should be notified if the patient does not attend
- The GP has a key role in coordination of follow-up. Randomised evidence shows no change in outcome when follow-up alternates between specialist and GP



7 Survivorship

The transition from active to post-treatment care is critical to long term health. Care should be planned and coordinated. Survivors should have knowledge of their increased risk of second and recurrent cancers and factors that may mitigate these risks. This encourages them to actively participate in their continuing post-treatment care. Hence routine follow-up visits become opportunities to promote a healthy life style, check for cancer recurrence and manage lasting effects of the cancer experience.

Survivorship may be medically led, particularly through primary care, nurse-led or patient-led. Cancer councils across Australia are developing and evaluating approaches that are patient-centred.

7.1 Modulators of relapse risk

A number of lifestyle factors have been shown to impact on breast cancer risk both in the primary (initial diagnosis) and secondary (relapse) settings including:

- Exercise – shown to be protective in the primary and secondary setting
- Alcohol consumption – only demonstrated as a risk factor in the primary setting
- Proportional fat intake – increases risk in the primary setting
- Obesity – Elevated BMI increases risk in both primary and secondary settings
- Vegetable intake – moderately protective in both primary and secondary settings.

For example in a study of women previously treated for breast cancer, exercise of 30 minutes 6x weekly combined with vegetable intake of 5+ servings daily reduced risk of death by 44% ($p=0.03$)²².

7.2 Education

Follow-up provides the opportunity to educate on these factors and encourage beneficial behaviours including:

- Encouragement of regular moderate exercise
- Avoidance of excess dietary fat
- Maintenance of BMI as close to ideal range as possible.
- Regular vegetable consumption (in preference to vitamin supplements).



8 Relapse and Retreatment

This step concerns the diagnosis and management of patients who have recurrence of the disease (local or metastatic) and who need assessment regarding further treatment. This assessment may be made by the GP initially with subsequent involvement of the specialist and the MDT. Clinical evaluation and patient discussion will determine the most appropriate treatment which may be curative or palliative in intent. A series of steps should occur at suspected relapse.

8.1 Investigation & Restaging

Investigation and diagnosis of potential relapse will usually be made by the specialist coordinating follow-up or by the GP. The following investigations may be indicated:

- Appropriate imaging of sites of persistent or suspicious symptoms
- Full blood examination and biochemistry including tumour markers
- Surgical biopsy of areas of clinical or radiological suspicion
- If relapse is confirmed restaging including body CT and bone scan are appropriate

8.2 Multidisciplinary Team Assessment & Treatment Planning

Patients who relapse require expert opinion as to the best plan of management and this will usually be provided by the MDT. Discussion should be led by the clinician who is responsible for coordinating treatment and follow-up.

Treatment for relapse may require drug therapy, radiation therapy or surgery.

The management plan should be decided in consultation with the patient and fully documented in the patient record. Participation by the GP and palliative care team is essential. NHMRC guidelines for the management of advanced breast cancer are available²³.

8.3 Nature of Treatment

Treatment will depend on the location and extent of the recurrence, and on previous management. Increasingly, advanced breast cancer is managed as a chronic disease. Treatment may include:

- surgery (for local recurrence in breast or chest wall)
- radiotherapy (for localized symptomatic disease)
- drug therapy for systemic disease (clinical trials should be considered)
- bisphosphonates to reduce skeletal events in the presence of bone metastases

8.4 Aspects of Supportive Care

A diagnosis of metastatic breast cancer may impart numerous burdens on the patient:

- the physical burden of disease-related symptoms
- psychological distress
- financial hardship



- extensive time commitments to treatment

These burdens may be alleviated by consideration of various supportive measures:

- palliative care referral for symptom control
- pain service referral particularly for analgesic procedures
- psychology service referral
- Provision of 'Hopes & Hurdles' information packs
- Social work consultation to assess potential financial supports
- Provision of aspects of care near home where possible



9 Palliative Care

The WA Palliative Care model defines the appropriate approach to symptom management and end of life care.

It is important that patients and their families receive optimal palliative care and early referral for assessment and advice is recommended.

It is also important to recognise that a major component of palliative care involves symptom relief and this may require surgical intervention, radiation therapy or chemotherapy.

(http://www.healthnetworks.health.wa.gov.au/modelsofcare/docs/Palliative_Care_Model_of_Care.pdf)



Recommendations:

1. Resources should be committed towards driving the modulation of lifestyle factors known to reduce breast cancer risk.
2. All patient cases should be reviewed and a management plan proposed by a multi-disciplinary team as defined in the Breast Cancer Model of Care.
3. Breast cancer surgery should only be carried out by specialist breast cancer surgeons.
4. Initiatives to improve public access to immediate and delayed breast reconstructive surgery should be explored inclusive of consideration of surgeon-directed incentives to undertake such work.
5. All patients should have access to a specialist breast care nurse inclusive of patients presenting with metastatic disease.
6. Access to Allied Health Services should be equitable and affordable state-wide.
7. Coordinated follow-up protocols, potentially contained in the context of a patient-held record should be employed. A minimum of at least annual follow-up for five years particularly for women on adjuvant anti-estrogen treatment is proposed.
8. Treatment and outcome data should be routinely captured state-wide and available for analysis through an adequately curated clinical database



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