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Optimal cancer care pathway for people with breast cancer

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Whakataukī

Have a sense of the message in the winds

Anei he taonga nō te mātanga nō Ahitereiria
Koutou maa I takoto te koha ki a mātou

Here is a treasure from the skilled and able specialist in Australia
Greetings for this treasure you have gifted us here in Aotearoa to explore and use

E ki ana te tangi o tatou manu
Ko te manu e kai ana ki te miro, nōnā te ngahere
Ko te manu e kai ana ki te mātauranga nōnā te Ao

It has been reiterated that when our manu cries, we sit up and listen
The bird that feeds upon local berries, local knowledge will prosper
The bird that feeds upon wisdom, our world knowledge will flourish.

It is an exciting time to feed off the wisdom of other cultures

Matua Tau Huirama

We would like to acknowledge The Voices of Whānau Māori Affected by Cancer (2023); He Ara Tangata – Te Aho o Te Kahu Consumer Group; the project team; clinicians; and national and special interest working groups that contributed to the development of the Optimal Cancer Care Pathways.

Special acknowledgement is extended to the Cancer Council Australia, who generously shared their Optimal Care Pathways framework and provided permission for it to be adapted to support people and whānau across Aotearoa New Zealand experiencing cancer.

Contents

For further information including:

- Achieving Pae Ora, equity and whānau insights
- Person/whānau questions
- Definitions
- Breast cancer references and bibliography

Refer to **Optimal Cancer Care Pathway (OCCP) supplementary information.**

Foreword

Kia ora,

On behalf of Te Aho o Te Kahu | Cancer Control Agency, the clinician community, and the people and whānau who contributed to developing this guidance, I am proud to present the breast cancer Optimal Cancer Care Pathway (OCCP) for Aotearoa New Zealand.

Almost everyone across Aotearoa has been affected by cancer in some way. This year over 28,000 people will be diagnosed with cancer, with thousands more supporting loved ones living with this disease. Breast cancer affects an increasing number of people with more than 3500 diagnosed with breast cancer this year. Around 650 people will die from breast cancer this year. We all believe that people and their whānau deserve the best cancer care available.

OCCPs are designed to guide the planning, coordination and delivery of best practice cancer prevention and care services across Aotearoa for different types of cancer. Each OCCP has been designed:

- with the needs of the person and their whānau at the heart
- to reflect the best capabilities available in Aotearoa
- to provide a national standard for high-quality cancer prevention and care that we expect for all New Zealanders.

While cancer control services are expanding and improving across the motu | country, there are often unwarranted variations in the risk of getting cancer and in the care experienced by people with cancer. Also, many people continue to face barriers in accessing timely and effective cancer care because of where they live, their circumstances, or their ethnic background. Research shows that following best practice guidance like OCCPs, helps to reduce variations and disparities and improves cancer outcomes for people and their whānau. In turn, this will help our overall aim of reducing the burden of cancer on people and communities.

This resource reflects the expertise and experiences from many stakeholders across the country. Many thanks to everyone involved in this initiative, particularly Cancer Council Australia, who granted permission to adapt and adopt their Optimal Care Pathways framework to meet the needs of people in Aotearoa | New Zealand. We would also like to acknowledge the insights from The Voices of Whānau Māori Affected by Cancer (2023); He Ara Tangata – Te Aho o Te Kahu Consumer Group; the project team; clinicians; and national and special interest working groups.

Our thoughts are with the many people and whānau who are living with Breast cancer, and those who have lost loved ones. Much of this guidance reflects the voices of those who have received cancer care. We are indebted to these people for sharing their experiences to help improve cancer control outcomes and achieve equity.

Ngā mihi nui,

Rami Rahal
Tumuaki | Chief Executive
Te Aho O Te Kahu | Cancer Control Agency

Summary guide of breast cancer OCCP information

Quick reference guide of condensed tumour stream

The Optimal Cancer Care Pathways (OCCP) describe the standard of care that people and whānau across Aotearoa, New Zealand should expect the public health system to be striving for. They follow eight principles[1]: person and whānau-centred care; equity-led; safe, high-quality care; multidisciplinary care; supportive care; coordinated care; effective and timely communication; and knowledge-driven care.

The OCCP guides health providers in ensuring the person and their whānau receive optimal, supportive care at each stage of their cancer diagnosis and treatment.

Step 1: Wellness	Step 1: Checklist
Cancer prevention efforts should be part of all cancer control pathways. This step recommends actions the person/whānau can take to improve their wellbeing and reduce the overall risk of cancer. Evidence-based research shows that general cancer and wellbeing risks can be reduced by: • eating a nutritious diet • maintaining a healthy weight • taking regular, moderate to vigorous-intensity activity • avoiding or limiting alcohol intake • being sun smart • identifying pre-disposing infections such as, Hepatitis C • keeping up to date with immunisations or vaccines such as, Human Papilloma Virus (HPV) • avoiding smoking including marijuana and exposure to second-hand smoke ○ current smokers (or those who have recently quit) should be offered best practice tobacco dependence treatment and an opt-out referral to an intervention service such as Quitline • avoiding vaping • participating in screening services such as breast, cervical, bowel cancer screening • preventing occupational exposure to asbestos, silica, radon heavy metal, diesel exhaust and polycyclic aromatic hydrocarbons.	☐ Carry out a health and wellbeing assessment including discussions around screening services and ways to reduce cancer risk. ☐ Assess the individual's risk of developing cancer. ☐ Provide screening recommendations if eligible. ☐ Encourage eligible people to participate in national screening programmes. ☐ Discuss recent weight changes and monitor weight. ☐ Discuss and record alcohol intake. Offer support for reducing alcohol consumption if appropriate. ☐ Record person's smoking status and offer stop smoking advice/support if appropriate. ☐ Record physical activity. ☐ Consider referral to a dietitian, physiotherapist, or exercise programme. ☐ Give the person education on being sun smart.

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[1] Optimal Cancer Care Pathway Principles

Step 2: Screening and early detection

This step recommends options for screening and early detection for the person with suspected breast cancer.

Screening programmes increase the chance of identifying asymptomatic cancer early and improve the person's outcome.

General Practitioners (GPs)/clinicians check if the person has any relevant screening due and arrange support to attend if required.

Assess family history of cancer as part of a routine assessment check.

There are three national screening programmes for breast, bowel, and cervical cancer using human papillomavirus testing (HPV) primary screening.

Screening timeframes

If participating in the national breast screening programme, you should receive your mammogram result within 3 weeks.

Early detection

Breast cancer modifiable risk factors:

- physical inactivity
- unhealthy weight
- alcohol consumption.

Breast cancer non-modifiable risk factors:

- age
- gender (being female)
- significant family history of breast cancer and/or other cancers
- pathogenic variants in cancer predisposition genes including ATM, *BRCA1*, *BRCA2*, *CDH1*, *CHEK2*, *NF1*, *PALB2*, *PTEN*, *STK11* and *TP53*
- DCIS (ductal carcinoma in situ)
- LCIS (lobular carcinoma in situ) also referred to as non-invasive lobular neoplasia
- atypical epithelial proliferative breast cancer (atypical ductal hyperplasia and atypical lobular hyperplasia)
- previous breast cancer.

Reproductive and hormonal risk factors:

- high mammographic breast density (must be adjusted for age and body mass index)
- early menarche <12
- late menopause (>55 years)
- not bearing children
- never having breastfed
- late age at first birth (having a child before age 30 is protective)

Step 2: Checklist

☐ Assess and discuss the individual's risk of developing cancer.

☐ Support the person to follow surveillance guidance if they're at an increased risk of familial cancer.

☐ Provide screening recommendations if eligible.

☐ Refer to clinical genetic services where appropriate.

☐ Discuss recent weight changes and monitor weight.

☐ Encourage participation in National Screening Programmes to eligible people.

If signs and symptoms of cancer are present refer to 'Step 3: Presentation, initial investigation and referral' below.

Health providers encourage and support the person to follow surveillance guidance if an increased risk of familial cancer is identified.

Refer to clinical genetics where appropriate if the person and their whānau have known genetic markers for a breast cancer or a familial history.

Communication

Ensure the person and their whānau understands:

☐ the screening processes

☐ when they should receive their results

☐ how to follow up if they don't receive their results

☐ what's involved if they need to be transferred to a specialist service.

• use of combined hormone replacement therapy, particularly for extended periods over many years • exposure of the breast to ionising radiation such as x-rays, CT scans but not mammography. Women should be encouraged to practice breast awareness regularly. This includes: • being familiar with the usual look and feel of their breasts and know what is normal for them • know what breast changes to look and feel for (see 3.2 Signs and Symptoms) • be "sensibly alert" to changes in their breasts, and see their healthcare provider if they notice any changes • have a mammogram every 2 years if aged 45 to 69 years (this will be extended to 74 years a phased approached over next four years) • know their family history of cancer • health providers encourage and support the person to follow surveillance guidance if an increased risk of familial cancer is identified. Refer to clinical genetics where appropriate if the person and their whānau have known genetic markers for a breast cancer or a familial history.	

Step 3: Presentation, initial investigations, and referral	Step 3: Checklist
This step outlines how to initiate the appropriate investigations and referrals to specialist/s in a timely manner for the person with suspected breast cancer. The types of investigations undertaken will depend on many factors, including access to diagnostic tests, the availability of medical specialists and including preferences. A person and their whānau may present via primary care, an emergency presentation or incidental finding with a high suspicion of breast cancer. Signs and symptoms of breast cancer to investigate include: • discrete breast or axillary lump, ulceration, skin dimpling, or breast distortion • persistent nipple eczema, ulceration, recent (< 3 months) nipple retraction or distortion • bloody or serous unilateral nipple discharge	☐ Record signs and symptoms. ☐ Complete all cancer assessments. ☐ Inform the person and their whānau of preliminary results. ☐ Referral options of cancer care are discussed with the person and their whānau, including cost implications if private provider requested. ☐ Complete and record supportive care needs assessment, refer to allied health services as required. ☐ Inform the person and their whānau of cultural services and relevant support groups available. ☐ Initiate referrals and arrange further investigation.

- breast inflammation or infection not responding to treatment
- repeated consultation about the same breast symptoms.

Breast cancer assessment is based around the **triple assessment** (physical examination, imaging with mammogram and/or ultrasound, and biopsy) clinical examination, undertaken at a Breast Care Centre, and includes the relevant:

- medical history, including medications
- physical examination, including ECOG, frailty assessment, weight, clinical breast examination, examination of nodes (axilla and supraclavicular areas) and systemic exam looking for metastatic disease
- investigations (laboratory, radiology) including mammography and/or ultrasound*; core biopsy (should report receptor status including ER, PR and HER2 with FISH)
- family history including any family history of breast or ovarian cancer
- social history of the person and their whānau.

*Other imaging modalities may be considered depending on individual risk factors, such as breast density.

BreastScreen Aotearoa services take responsibility for the investigation of screen detected breast cancer including:

- multidisciplinary assessment for screened women, including clinical examination, ultrasound, percutaneous needle biopsy, open surgical excision biopsy, vacuum-assisted excision, and pathology services
- communication of the screening results to women and their primary health care provider
- support and counselling for women undergoing assessment procedures
- referral to treatment for those women identified with breast cancer.

Referral

If the person presents with one of the following red flags, the referral should be triaged as urgent and a high suspicion of cancer:

- diagnosed cancer on fine needle aspiration or core biopsy (or results suspicious of malignancy)
- imaging suspicious of malignancy
- discrete, hard breast lump with fixation (with or without skin tethering)
- discrete breast lump that presents in women with one or more of the following:
    - age 40 years or older, and persists after her next period or presents after menopause

Timeframe

☐ If there is a high suspicion of breast cancer, submit referral **immediately** to hospital specialist services.

☐ High suspicion of cancer referral is triaged **within 1-2 working days** and referrer is notified.

☐ Confirm that the person referred urgently with a high suspicion of cancer will attend their first specialist assessment (FSA) clinic **within 2 weeks**.

Communication

☐ Explain to person and their whānau that they are being referred to a hospital specialist service and why, including:

- how long this may take
- who to contact if their symptoms change
- how to follow up if they do not receive their specialist appointment within the specified time.

○ aged younger than 40 years and the lump is increasing in size or where there are other reasons for concern (*see risk factors below) ○ with previous breast cancer or ovarian cancer - women aged over 40 years with unilateral eczematous skin or nipple change that does not respond to topical treatment - men aged 50 years and older with a unilateral, firm sub-areolar mass, which is not typical gynaecomastia or is eccentric to the nipple. *** Risk factors** - A first degree relative diagnosed with breast cancer before aged 50 years. - Two or more first degree relatives on the same side of the family diagnosed with breast cancer at any age. - Two second degree relatives on the same side of the family, diagnosed with breast cancer, at least one before age 50. - First or second degree relative diagnosed with bilateral breast cancer. - First or second degree relative with male breast cancer. - Known to carry a breast cancer susceptibility gene mutation (e.g., *BRCA1* or *BRCA2*). - Radiation therapy delivered to the chest or mediastinum.	

Step 4: Diagnosis, staging and treatment planning	**Step 4: Checklist**
This step outlines the process for confirming the diagnosis and stage of cancer and the planning of subsequent treatment. **Diagnosis** for breast cancer may include triple assessment information (see Step 3). **Staging** for breast cancer. - Routine staging with, for example, computed tomography (CT) and bone scan are not recommended for most people with early breast cancer. - CT Staging is appropriate for the person with confirmed locally advanced or nodal disease and for any person with clinical symptoms or clinical suspicion of metastatic disease. PET-CT scan may also be an appropriate modality. - Preoperative staging should be considered for locally advanced disease, inflammatory breast cancer, those with symptoms or signs suggestive of metastatic disease and those	☐ Confirm diagnosis. ☐ All people with a high suspicion of cancer have a person to coordinate care. ☐ Referral to a cancer care coordinator or breast cancer nurse specialist. ☐ Record staging, performance status and comorbidities. ☐ Discuss the person's diagnosis at a multidisciplinary meeting (MDM) and inform the person and their whānau of the treatment decision. ☐ Consider enrolment in a relevant clinical trial. ☐ Consider fertility consequences with treatment and refer to fertility specialist as required. ☐ Assess supportive care needs and refer to allied health services as required.

planned for neoadjuvant chemotherapy.

Performance status

- ECOG, geriatric assessment (as appropriate).

Multidisciplinary meeting

- Referral to breast cancer MDM following nationally agreed referral criteria is undertaken to inform treatment recommendations or further assessment and investigation.

Familial cancer risk / Clinical genetic testing

- People with breast cancer should be referred for genetic work-up early in their treatment journey if they fulfil germline testing criteria.

Treatment planning

Optimal cancer care requires a multidisciplinary approach to ensure treatment plans are tailored to an individual's needs in collaboration with the whānau and health care team.

☐ Ensure primary or secondary prehabilitation to optimise overall well-being is initiated.

☐ Referral to breast specific support services as required including breast care nurse specialists, Cancer NGOs.

☐ Begin Enhanced Recovery After Surgery (ERAS) protocol if for surgery.

☐ Give the person and their whānau information on breast cancer NGOs, Cancer Society, Canteen, and/or relevant cultural services and support groups available.

☐ Referral to genetic services as per criteria.

Timeframe

If required, an MDM should occur **within 2 weeks** of the suspected or confirmed diagnosis.

Communication

The lead clinician and team are responsible for:

☐ discussing a timeframe for diagnosis and treatment options with person and their whānau

☐ explaining the role of the MDM team in treatment planning and ongoing care

☐ encouraging discussion about the diagnosis, prognosis, advance care planning and palliative care while clarifying wishes, needs, beliefs, and expectations of the person and their whānau and their ability to comprehend the communication.

☐ providing appropriate information and referral to support services as required

☐ communicating with the GP of the person and their whānau about the diagnosis, treatment plan and recommendations from the MDM.

Step 5: Treatment

This step describes publicly funded optimal treatments for breast cancer by trained and experienced clinicians and team members, in an appropriate environment.

Establish the intent of treatment:

- curative – to cure the cancer completely
- tumour control – to stop the cancer growing and spreading

Step 5: Checklist

☐ Health providers/professional, treating specialist has relevant qualifications, experience, and expertise.

☐ Discuss the intent of treatment and the risks and benefits discussed with the person and their whānau.

☐ Discuss and provide the agreed treatment plan with the person, their whānau and GP.

- palliative – to manage symptoms caused by the cancer.

Treatment options for people with early and locally advanced breast cancer treated with curative intent.

Surgery may be used to stage the cancer and as a treatment. Surgery (either breast-conserving surgery or mastectomy) is recommended for many people with breast cancer. Mastectomy can be performed with or without immediate breast reconstruction. People should be fully informed of their options and offered the option of immediate or delayed reconstructive surgery.

Systemic anti-cancer therapy

- Neoadjuvant therapy, usually chemotherapy, may be appropriate for an increasing number of breast cancers. This includes tumours where the response to neoadjuvant chemotherapy may direct future therapy (e.g., triple-negative, and HER2-positive cancers, locally advanced or inflammatory breast cancers as well as some larger operable breast cancers to down-stage tumours), either to make them operable or to allow breast-conserving therapy.
- For early breast cancers following surgery, a further discussion at the MDM will determine the appropriateness and type of systemic anti-cancer therapy.

Radiation therapy is an adjuvant, localised treatment used to reduce the risk of breast cancer recurrence after breast conserving surgery or mastectomy. Radiation therapy can be used in early and advanced breast cancer, as well as in the treatment of ductal carcinoma in situ (DCIS).

Treatment options for people with advanced breast cancer may include any of the treatment options outlined above plus the inclusion of Palliative care. Systemic anti-cancer therapy and radiation therapy are frequently used in the advanced breast cancer setting.

Palliative care – Early referral to palliative care can improve quality of life and in some cases survival. Referral is based on need, not prognosis

☐ Assess supportive care needs and refer to allied health services as required.

☐ Give the person and their whānau information on the cancer non-governmental organisations (NGOs,) cultural services and support groups available.

☐ Consider early referral to palliative care if appropriate.

☐ Discuss advanced care planning discussed with the person and their whānau.

Timeframes

☐ The person with a confirmed diagnosis of breast cancer receives their first treatment **within 31 days** of the decision to treat.

☐ The person referred urgently with a high suspicion of breast cancer receives their first cancer treatment **within 62 days** from the date of referral.

☐ Time to surgery, if required after neoadjuvant treatment, depends on the regimen.

☐ The person with non-metastatic breast cancer is presented in the breast cancer MDM within three weeks after surgery for consideration of adjuvant therapy.

☐ Radiation therapy should start within four weeks of the MDM.

☐ Adjuvant chemotherapy should begin within four weeks of surgery.

Communication

The lead clinician and team are responsible for discussing these areas with the person and their whānau:

☐ treatment options including the intent of treatment, risks, and benefits.

☐ advance care planning.

☐ options for healthy lifestyle support to improve treatment outcomes such as exercise and nutrition.

Step 6: Care after treatment

The person is able to access appropriate follow up and surveillance and are supported to achieve their optimal health after cancer treatment.

Provide a summary of the treatment and follow-up care plan to the person, their whānau and their GP outlining:

- diagnosis, including tests performed and results
- treatment received (types and date)
- current toxicities (severity, management and expected outcomes)
- interventions and treatment plans from other health providers/professionals
- potential long-term and latent effects of treatment and care of these
- contact information for key health care providers/ professionals who can offer support for lifestyle modification
- a process for rapid re-entry to medical services for suspected recurrence.

Ongoing assessment of the effects of treatment such as:

- upper limb problems following surgery including decreased range of movement, which may delay radiation therapy – referral to a physiotherapist may be required
- upper limb and breast lymphoedema following lymphadenectomy/radiation therapy - referral (preferably preoperatively) to a health professional with accredited lymphoedema management qualifications, offering the full scope of complex lymphoedema therapy, should be encouraged (prospective monitoring, particularly for high-risk people is recommended)
- disfigurement and scarring from appearance-altering treatment (and possible need for a prosthesis) - referral to a specialist psychologist, psychiatrist, or social worker
- coping with hair loss and changes in physical appearance.

Step 6: Checklist

☐ Provide a survivorship plan that includes a summary of the treatment and follow-up care plan to the person, whānau and their GP.

☐ Assess supportive care needs and refer to allied health services as required.

☐ Complete appropriate forms for people to access wig and breast prosthesis subsidies.

☐ Give the person and their whānau information on breast cancer NGOs, Cancer Society and/or relevant cultural services and support groups available.

Communication

The lead clinician and team are responsible for:

☐ explaining the treatment summary and follow-up and surveillance care plan to the person and their whānau

☐ informing the person and their whānau about secondary prevention and healthy living

☐ discussing the follow-up care plan with the GP of the person and their whānau

☐ providing guidance for rapid re-entry to specialist services.

Step 7: Palliative and end-of-life care

Palliative and end-of-life care provides the person facing life-limiting conditions with holistic support and coordinated services based on their specific needs.

Palliative care may be provided through:

- hospital palliative care
- home and community-based care
- community nursing, including access to appropriate equipment.

Early referral, identification, correct assessment and treatment of pain and other symptoms prevent and relieves suffering.

End-of-life care should consider:

- appropriate place of care
- person’s preferred place of death
- support needed for the person and their whānau.

Awareness of and access to, assisted dying services should be available if the person and their whānau raise this with the health care team.

Communication

A key way to support the person and their whānau is by coordinating ongoing, clear communications between all health providers/professionals involved in providing cancer care.

Step 7: Checklist

☐ Early referral to palliative care services as required.

☐ Refer to supportive care services as required.

☐ Make sure the person and their whānau are aware of the prognosis and what to expect when someone is dying.

☐ Discuss activation of advance care plan, directive, or enduring power of attorney.

How optimal cancer care pathways improve outcomes

Optimal Cancer Care Pathways (OCCPs) are critical tools for guiding the national delivery of consistent, safe, high-quality, evidence-based cancer care for people and whānau across Aotearoa New Zealand. Research shows OCCPs improve the outcomes and experiences of people and their whānau affected by cancer to guide the design and delivery of cancer care services that are systematic, equitable, connected, and timely (Cancer Council Australia, nd).

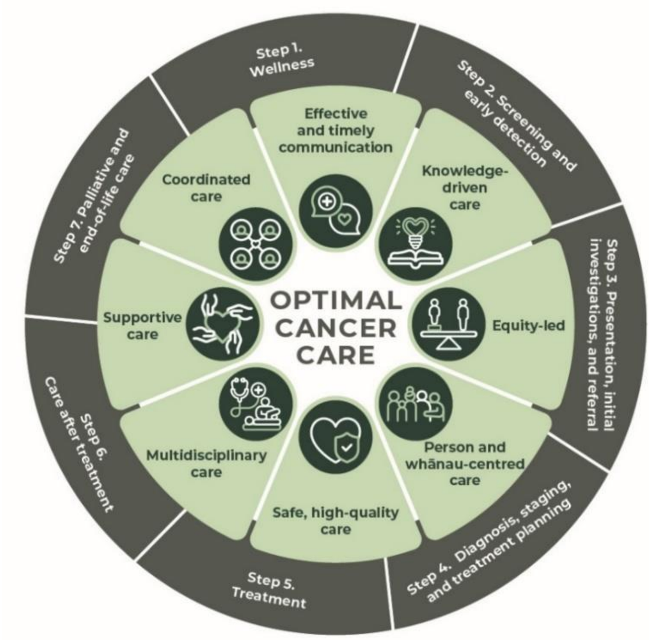
OCCPs are a framework for achieving health equity[2] in cancer control using a person and whānau centred approach to provide people with equitable, high-quality care, regardless of where they live or receive cancer treatment. OCCPs help to:

- identify gaps in existing cancer services
- address barriers and unwarranted variations in accessing high-quality care
- identify opportunities for system improvements
- continually improve the way services are planned and coordinated.

As shown in Figure 1, the OCCPs map seven key steps in providing cancer care based on evidence-based practice, underpinned by eight principles to deliver the optimal level of care. While the seven steps appear linear, in practice, the care a person receives may not be. The steps provided will be tailored to their specific situation and needs, for example the type of cancer they have, when and how the cancer is diagnosed and managed, the person's decisions, and how they respond to treatment.

OCCPs are designed to be used alongside clinical guidelines. The OCCPs do not constitute medical advice or replace clinical judgement or guidance.

Figure 1: Optimal Cancer Care model



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[2] Optimal Cancer Care Pathway Supplementary Information

Principles of the optimal cancer care pathway

The principles[3] underpinning OCCPs are essential to achieving the best cancer care, experience, and outcomes of the person and their whānau. OCCPs put the person and their whānau at the centre of care planning throughout their treatment/care and prompt the health care system to coordinate high-quality care. The person and their whānau are informed and involved in decisions throughout their cancer experience, according to their preferences, needs and values.

Figure 2: Principles optimal cancer care

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[3] Optimal Cancer Care Pathway Principles

Optimal timeframes

Evidence based guidelines, where they exist, are used to inform clinical timeframes. Shorter timeframes for appropriate investigations, consultations and treatment can provide an improved experience for people and their whānau and better cancer outcomes. The three steps shown below are a guide for health providers/professionals and the person/whānau on the optimal timeframes being assessed and receiving treatment. These timeframes are based on expert advice.

Figure 3: Timeframes for care

Step in pathway	Care point	Timeframes
Step 3: Presentation, initial investigations, and referral	Signs and symptoms	A person presenting with symptoms is promptly assessed by a health professional.
	Initial investigations started by GP	If symptoms suggest breast cancer, the person is referred to a breast care centre **within 2 weeks** for urgent investigation.
	Referral to a hospital specialist	A positive result on any component of the triple test warrants specialist surgical referral. Ideally the surgeon should see the person with proven or suspected cancer **within 2 weeks** of diagnosis. If necessary, prior discussion should facilitate referral.
The person referred with a high suspicion of breast cancer and triaged by a clinician as urgent will receive their first cancer treatment **within 62 days**.		
Step 4: Diagnosis, staging, and treatment planning	Diagnosis and staging	Investigations should be completed **within 2 weeks** of initial specialist consultation. Referral to breast cancer nurse **within 1 week** of definitive diagnosis.
	Multidisciplinary team meeting and treatment planning	Ideally, the multidisciplinary team should discuss all newly diagnosed people with breast cancer prior to surgery or neoadjuvant chemotherapy. MDM takes place **within 2 weeks** of confirmed diagnosis and staging.
	Surgery	Surgery should occur ideally **within 4 weeks** of the decision to treat (for invasive breast cancer).

Step 5: Treatment	Systemic Anti-Cancer Therapy	Neoadjuvant chemotherapy should begin **within 4 weeks** of the decision to treat. Adjuvant chemotherapy should begin **within 6 weeks** of surgery. Adjuvant chemotherapy for tiple-negative and HER2 - positive breast cancer should begin **within 4 weeks** of surgery. Endocrine therapy should begin as soon as appropriate after completing chemotherapy, radiation therapy and/or surgery (and in some cases will be started in the neoadjuvant setting).
	Radiation Therapy	For people who don't have adjuvant chemotherapy, radiation therapy should begin **within 8 weeks** of surgery. For people who have adjuvant chemotherapy, radiation therapy should **begin 3-4 weeks** after chemotherapy.

Optimal cancer care pathway

Seven steps of the optimal cancer care pathway

Step 1: Wellness
Step 2: Screening and early detection
Step 3: Presentation, initial investigations, and referral
Step 4: Diagnosis, staging, and treatment planning
Step 5: Treatment
Step 6: Care after treatment
Step 7: Palliative care and end-of-life care

Breast cancer is the most common cancer to affect women in Aotearoa with around 3,500 new cases a year. Rates of breast cancer have increased slightly over the past 20 years for both Māori and non-Māori women. There are multiple causes for this trend, including increased exposure to modifiable risk factors associated with cancer. However, the increase may also reflect the expansion of the inclusion age for the national breast screening programme in 2004 (originally offered to women aged 50–64 years and then expanded to 45–69 years), which has led to an increase in the detection of breast cancer among those newly included age groups (Te Aho o Te Kahu 2024).

Men with breast cancer

While breast cancer is uncommon in males, it is important for men who find changes in their breasts to see their doctor without delay. Given the low number of diagnoses and the identification of breast cancer in the general community as a ‘female disease’, many men who are diagnosed with breast cancer can feel isolated and unsupported. This has the potential to cause significant psychological distress and may lead to anxiety and depression. Those working in the area should be alert to the increased risk for psychological complications, the impact on body image and the potential for isolation. Peer support may be useful to normalise the feeling and side effects of treatment. All resources should be cognisant of not excluding men because this has the potential to further ostracise an already isolated group.

Step 1: Wellness

Cancer prevention efforts should be part of all cancer control pathways. This step recommends actions the person/whānau can take to improve their wellbeing and reduce the overall risk of cancer.

Health care providers and services such as primary care, public health units, hospitals, and non-governmental organisations (NGOs) work collaboratively to prevent cancer (and other conditions) with the person and their whānau and communities. Te Aho o Te Kahu (2022) produced a report outlining evidence-based, best-practice interventions to prevent cancer. Reducing cancer risk factors addresses work to achieve the goals of fewer cancers, better survival, and equity for all.

1.1 Te Tiriti o Waitangi

Health providers/professionals enable and enact Te Tiriti o Waitangi through:

- culturally safe health care providers and practices embedded in all health services and steps of the cancer care pathway
- institutional and personal bias or racism within the health and disability system being acknowledged, identified, and addressed (Harris et al 2012)
- implementation of health and wellness approaches that support ritenga Māori (Māori customary rights) framed by te ao Māori (a Māori world view), enacted through tikanga Māori (Māori customs) and encapsulated with mātauranga Māori (Māori knowledges)
- meaningful partnerships with Māori communities and organisations that benefit Māori
- support and resource health promotion activities co-designed with Māori.
- prioritise achieving equity for screening participation rates in national cancer screening programmes (cervical, breast, bowel).

1.2 Modifiable cancer and wellbeing risks

Evidence-based research shows that general cancer and wellbeing risks can be reduced by:

- eating a nutritious diet
- maintaining a healthy weight
- taking regular, moderate to vigorous-intensity activity
- avoiding or limiting alcohol intake
- being sun smart
- identifying pre-disposing infections, such as hepatitis C
- immunisations – for example, HPV
- avoiding smoking including marijuana and exposure to second-hand smoke
    - current smokers (or those who have recently quit) should be offered best practice tobacco dependence treatment and an opt-out referral to an intervention service such as Quitline
- avoiding vaping
- screening services, such as breast, cervical and bowel cancer screening
- preventing occupational exposure to asbestos, silica, radon heavy metal, diesel exhaust and polycyclic aromatic hydrocarbons (Te Aho o Te Kahu 2022).

Most cancer risk factors are not unique to cancer and are shared by other chronic diseases such as diabetes, heart disease and strokes.

1.3 Communication with the person/whānau receiving care

Health providers

- Raise and discuss any modifiable risk factors.
- Provide information and education regarding access to wellness programmes, including kaupapa Māori services.
- Discuss advance care planning, advance directive and/or Enduring Power of Attorney (EPA) as required (refer Principle 1)[1].

Communication between health services

- Inform the person and their whānau of any referrals between health care services and wellness programmes.

"Whānau look at prevention holistically."
Person/whānau insights

1.4 Measuring and monitoring

Below is a list of national measures that inform this step and can be used to monitor and measure cancer care.

- **Smoking and vaping rates** (note: these measures apply to every step on the pathway).
  - The number of current smokers (aged 15 years and above) who smoke daily and have smoked more than 100 cigarettes their whole life as measured by the New Zealand Health Survey, by gender and ethnicity.
  - The number of vapers (aged 15 years and above) who have tried vaping and vape at least once a day as measured by the New Zealand Health Survey, by gender and ethnicity.
- **The New Zealand Health survey** (NZHS) provides information about the health and wellbeing of New Zealanders.
  - Health status and behaviours.
  - Risk factors.
  - Access to health care.

Step 2: Screening and early detection

This step outlines recommendations for screening and early detection for the person with suspected breast cancer.

2.1 Te Tiriti o Waitangi

Health providers/professionals enable and enact Te Tiriti o Waitangi through:
- making sure screening and early detection of cancer services are provided in culturally appropriate ways that recognise and support the expression of hauora Māori models of care
- providing access to co-designed kaupapa Māori cancer screening and early detection programmes, where possible (Te Aho o Te Kahu 2022)
- implementing programmes that enhance access to cancer services

Māori and Pacific peoples often present at an earlier age than the general population, so awareness and consideration of this needs to factor into assessment and review of signs and symptoms.

2.2 Screening

Cancer screening programmes detect if pre-cancer cells are present and identify cancers before any symptoms appear. Currently, there are three national cancer screening programmes: breast, cervical and bowel.

Primary care and the national screening programmes work with the person and their whānau to enable, educate and encourage them to participate in breast screening. This includes:
- women aged between 45 and 69 years are encouraged and supported to participate in the national breast screening programme.
    - Age extension for breast cancer screening will be phased in over the next four years and enable women aged 70 to 74 to be screened biennially.
- utilising whānau prompting tools for cancer screening services within Primary care
- undertake opportunistic cancer screening conversations to encourage enrolment and participation
- discuss screening results and follow up as required.

Breast screening information for health professionals, including policies, quality standards, monitoring reports and publications, can be found on the National Screening website **nsu.govt.nz/health-professionals/breastscreen-aotearoa**
Information for whānau: **info.health.nz/keeping-healthy/cancer-screening/breast-screening** or **healthify.nz**

2.3 Early detection

Early detection focuses on detecting symptomatic people as early as possible. Early detection has several benefits, including better treatment outcomes and improved survivorship.

Breast awareness should be practiced by women regularly. This includes:

- being familiar with the usual look and feel of their breasts and know what is normal for them
- know what breast changes to look and feel for (see 3.2 Signs and Symptoms)
- be "sensibly alert" to changes in their breasts, and see their healthcare provider if they notice any changes
- engage with the BreastScreen Aotearoa (BSA) programme and have a mammogram every 2 years (see breast screening)
- know their family history of cancer.

Information for whānau can be found at **breastcancerfoundation.org.nz/breast-awareness**

2.4 Breast cancer risk factors[4]

2.4.1 Modifiable risk factors

- poor nutrition
- unhealthy weight range
- physical inactivity
- alcohol consumption
- smoking

2.4.2 Non-modifiable risk factors

- age
- gender (being female)
- significant family history of breast cancer and/or other cancers
- pathogenic variants in cancer predisposition genes including *ATM, BRCA1, BRCA2, CDH1, CHEK2, NF1, PALB2, PTEN, STK11* and *TP53*
- DCIS (ductal carcinoma in situ)
- LCIS (lobular carcinoma in situ) also referred to as non-invasive lobular neoplasia
- atypical epithelial proliferative breast cancer (atypical ductal hyperplasia and atypical lobular hyperplasia)
- previous breast cancer

2.4.3 Reproductive and hormonal risk factors

- high mammographic breast density (must be adjusted for age and body mass index)
- early menarche <12
- late menopause (>55 years)
- not bearing children
- never having breastfed
- late age at first birth (having a child before age 30 is protective)
- use of combined hormone replacement therapy, particularly for extended periods over many years
- exposure of the breast to ionising radiation such as x-rays, CT scans which use a higher dose of radiation but does not include mammography which uses a much lower dose.

2.4.4 Familial cancer risk

Some people may have an increased risk of developing breast cancer. An individual's family cancer history is reviewed and the person and their whānau are advised of the risks of developing a familial cancer. Health providers encourage and support the person and their whānau to follow surveillance guidance if an increased risk of familial cancer is identified.

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[4] IARC, 2025

Refer to clinical genetics where appropriate if the person and their whānau have known genetic markers for a breast cancer or a familial history.

New Zealand practice is informed by the eviQ referral guidelines (eviQ 2023) which provide detailed information about breast cancer genetic risk management, testing and referral. **eviq.org.au/cancer-genetics/referral-guidelines/1620-breast-cancer-referring-to-genetics**

For further information see:

- **Genetic Health Service New Zealand**
- Information for whānau **healthify.nz.**

Surveillance for women at moderate or high risk

New Zealand practice is informed by the following eviQ guidelines which provide detailed information about imaging surveillance including the appropriate modality (mammography or MRI), commencement age and imaging frequency:

- *BRCA1* or *BRCA2* – risk management (female) **eviq.org.au**
- breast cancer (high risk with no family history of ovarian cancer) – risk management (female) **eviq.org.au**
- breast cancer (high risk with ovarian cancer family history) – risk management (female) **eviq.org.au**
- breast cancer (moderately increased risk) – risk management (female) **eviq.org.au**

Risk-reducing medication for women at moderate or high risk

For women assessed as having an increased risk of breast cancer, antihormonal risk-reducing medication such as tamoxifen, raloxifene or an aromatase inhibitor is an option to lower the risk of developing breast cancer. Decisions about whether to use risk-reducing medication should be based on an accurate risk assessment and clear understanding of the absolute benefits and risks for each individual woman. The benefits and risks for an individual can be assessed by using a validated tool (see list below).

Risk-reducing surgery for women at high risk

Risk-reducing surgery such as prophylactic bilateral mastectomy may be considered for women at high risk of developing breast cancer (NCI 2013), including those with a mutation in a major breast cancer predisposition gene such as *BRCA1* or *BRCA2* (Cancer Council Australia 2015).

Bilateral risk-reducing mastectomy reduces the absolute risk of breast cancer by at least 90% (NCI 2013) in people with gene mutations. Even with total mastectomy, not all breast tissue can be removed. The remaining breast tissue may be at risk of developing cancer in the future (NCI 2013).

Knowledge of a woman's risk factors can be used to objectively assess her individual breast cancer risk using a validated tool (see list below).

Risk Assessment tools

The lifetime risk of female breast cancer in New Zealand is 1 in 9. Individual risk varies based on factors including personal history, ethnicity, family history, and lifestyle (BreastNet NZ, nd).

By accurately assessing a woman's personal breast cancer risk level, health professionals can offer the most appropriate evidence-based prevention and early detection strategies. All women should therefore consider having their individual breast cancer risk assessed. This can be done by women themselves or in primary care.

Cancer risk assessment should be repeated when major risk factors change (e.g., new family cancer history, breast biopsy showing atypical hyperplasia or LCIS).

There are validated computerised breast cancer risk assessment tools that estimate breast cancer risk based on individual risk factors:

- Peter MacCallum Cancer Centre **iPrevent tool**
- **Tyrer-Cuzick Risk Assessment Calculator IBIS tool**
- **CanRisk Web Tool**
- **BreastNet NZ risk calculator**
- **NZ Family Cancer Service BRRISK tool**

2.6 Communication with the person/whānau receiving care

Health providers/professionals

- Promote health checks.
- Raise and discuss any cancer risk factors.
- Provide information, and education regarding screening and early detection.
- Promote and monitor participation in screening programmes, if eligible.
- Discuss any investigation or screening results and follow up care as required.
- Discuss available supports, such as funding for travel and accommodation, one-stop clinics, community and/or marae-based screening services (where available), and same-day access to a chest x-ray.

Communication between health services

- Share results and further tests or referrals required with the appropriate service/specialty.

> ***"We went to screening as a group…we could awhi each other". "Education and screening at marae would be good."***
> Person/whānau insights

2.7 Measuring and monitoring

Monitoring and measuring are key components of contemporary best practice. Below is a list of national measures that inform this step and can be used to monitor and measure cancer care.

The Breast Cancer Foundation maintains Te Rēhita Mate Ūtaetae the national breast cancer register. This register has been collecting data on people with breast cancer for over 20 years and has robust reporting ability. It is intended that this resource will transition into the CanShare (Te Aho o Te Kahu) platform where more advanced analytics capabilities can be applied to strengthen national understanding of breast cancer care and outcomes.

- **BreastScreen Aotearoa National Policy and Quality Standards (Ministry of Health 2022)**

Criterion 1.1: The provider maximises the participation of women in the target age groups for screening and rescreening.

1.1.1 ≥70% of women aged 45–69 years participate in screening in the most recent 24-month period.

1.1.2 ≥75% of women aged 45–67 years who attend for their first screen within the programme are rescreened within 20 to 27 months.

1.1.3 Of women aged 45–67 years participating in their subsequent rescreens within the programme, ≥85% are rescreened within 20 to 27 months of their previous screening episode.

Criterion 3.1: The provider ensures women progress through the screening pathway in a timely manner.

3.1.1 Target: ≥90% of eligible women, once enrolled, are offered an available appointment for a screening mammogram within 60 working days (fixed sites only).

3.1.2 Target: >90% of women have a documented notification generated of the results of screening within 10 working days of the screening mammogram where the result is return to screening.

- **Faster Cancer Treatment**

  If screening suggestive of a high suspicion of cancer, the following FCT business rules will apply:

  - **31-day Health Target -** All people will receive their first cancer treatment (or other management) within 31 days from decision to treat. As a minimum, 90% of patients will receive their cancer treatment (or other management) within 31 days from the decision to treat.
  - **62-day indicator** – All people with a high suspicion of cancer (without a confirmed pathological diagnosis of cancer at referral) will receive their cancer treatment within 62 days from date of referral. As a minimum, 90% of patients will receive their cancer treatment (or other management) within 62 days from date of referral to first treatment.

Step 3: Presentation, initial investigations, and referral

This step outlines the process for initiation of the right investigations and referral to the appropriate specialist in a timely manner for the person with suspected breast cancer.

The types of investigations undertaken will depend on many factors including the preferences of the person and their whānau.

Community HealthPathways provide a source of relevant detailed information for a prostate cancer assessment from a person's primary care presentation and referral to secondary care to specialist services (Community Health Pathways. 2024). You can read more in **Community HealthPathways** .

The Community-referred radiology (CRR) Referral Criteria are criteria to provide nationally consistent access to imaging. The criteria set out a mandatory minimum level of radiology access to help primary care manage imaging in the community. Refer to: **National Community Referral Criteria for Imaging » Radiology**.

3.1 Tiriti o Waitangi

Health providers/professionals enable and enact Te Tiriti o Waitangi through:

- prioritising Māori with a 'high suspicion of cancer' referral pathway until symptoms are proven otherwise
- engaging with kaupapa Māori services that are equipped to provide holistic Whānau Ora services in the community
- supporting Māori with access to diagnostics, investigations, and referrals through to the appropriate secondary services.

3.2 Signs and symptoms

Signs and symptoms suspicious of cancer that prompt initial investigations may be via primary care, elective care, or an acute admission. Primary care services work with the person and their whānau to assess, investigate, review, and refer to appropriate services within recommended timeframes (see Optimal Timeframe section). These timeframes are indicated by national FCT high suspicion of cancer pathways and the indicator data dictionary.

Timeframe for general practitioner consultation

A person with signs and symptoms that may suggest breast cancer should be seen by a general practitioner **within 2 weeks**.

The person is assessed for signs and symptoms of breast cancer, including any unexplained, persistent signs and symptoms lasting more than three weeks (or earlier in people with known risk factors). The presence of multiple signs and symptoms, particularly in combination with other underlying risk factors, may indicate an increased risk of cancer.

Māori and Pacific peoples often present at an earlier age than the general population, so awareness and consideration of this needs to factor into assessment and review of signs and symptoms.

The following suspicious signs and symptoms of breast cancer include:

- discrete breast or axillary lump, ulceration, skin dimpling, or breast distortion
- persistent nipple eczema, ulceration, recent (<3 months) nipple retraction or distortion
- bloody or serous unilateral nipple discharge
- breast inflammation or infection not responding to treatment
- repeated consultation about the same breast symptoms.

People with symptoms as described above should be referred to specialist breast services, not BreastScreen Aotearoa services because they will require diagnostic imaging either publicly or privately.

3.3 Assessment

The triple assessment for a lump in the breast is standard practice and the robustness of assessment towards the diagnosis of breast cancer is crucial. The combination of physical examination, imaging (mammogram and/or ultrasound), and biopsy is more accurate than any modality alone. People with symptoms suggestive of breast cancer should be referred to a Breast Care Centre for assessment. At this point a breast care nurse will be involved with their care.

Breast cancer assessment includes (information for some cancer flags are available in Community HealthPathways):

- relevant medical history, including relevant medications
- relevant physical examination: ECOG, frailty assessment, weight, clinical breast examination clinical breast examination, examination of nodes (axilla and supraclavicular areas) and systemic exam looking for metastatic disease
- relevant investigations (laboratory, radiology): imaging – mammography and/or ultrasound*; non-excision biopsy**, preferably core biopsy (Cancer Australia 2017a; Farshid et al. 2019)
- relevant family history: including any family history of breast or ovarian cancer
- relevant person/whānau social history.

*Other imaging modalities may be considered depending on individual risk factors, such as breast density.

****Non-excision Biopsy** – Excisional biopsy should be avoided except when following 'triple assessment' and there is diagnostic uncertainty requiring a formal excisional biopsy. Biopsy should report receptor status including ER, PR and HER2 with FISH when indicated. Pathologists should expedite such testing as part of routine clinical care. Fine-needle aspiration biopsy does not permit distinction between invasive cancer and in situ malignancy. Evaluation of grade and subtype are not reliable, and cytology is inappropriate for assessing a cancer's receptor profile (ER, PR, HER2) critical for optimal treatment planning, including suitability of neoadjuvant therapy. Fine-needle aspiration cytology may be considered if the clinical and imaging features suggest a benign process, particularly a cystic lesion. If cytology results are non-diagnostic, atypical, suspicious, or malignant, core biopsy is needed. FNA can be used to sample enlarged suspicious lymph nodes to confirm cancer.

Based on the best available evidence, the triple test provides the most effective means of excluding breast cancer in the person with breast symptoms. A positive result on any component of the triple test warrants referral for specialist surgical assessment and/or further investigation, irrespective of any other normal test results. This implies that not all three components of the triple test need to be performed to reach the conclusion that appropriate referral is needed. The triple test is positive if any component is indeterminate, suspicious, or malignant (Cancer Australia 2017).

For screen-detected breast cancer, a 2020 review by Cancer Australia established that core biopsy (including vacuum-assisted core biopsy) is the procedure of choice for assessing most screen detected breast abnormalities (Cancer Australia 2020). Fine-needle aspiration in the screening setting is appropriate for simple cysts, some complex cystic breast cancer, axillary lymph nodes and rare situations where a core biopsy is hazardous or technically difficult.

BreastScreen Aotearoa services take responsibility for investigation of screen detected breast cancer including:

- multidisciplinary assessment for screened women, including clinical examination, ultrasound, percutaneous needle biopsy, open surgical excision biopsy, vacuum-assisted excision, and pathology services
- communication of the screening results to women and their primary health care provider
- support and counselling for women undergoing assessment procedures
- referral to treatment for those women identified with breast cancer.

To enable timely treatment planning, including consideration of neoadjuvant therapies, it is preferable that histologic findings, including receptor profile results, are available in time for the persons first consultation with the breast surgeon. Information may be provided to enable the person to make an informed decision on neoadjuvant therapy. See Breast Cancer Trials Neoadjuvant patient decision aid tool **myneoguide.com/#**

3.4 Initiate investigations, including referrals

The presence of multiple signs and symptoms, particularly in combination with other underlying risk factors, may indicate an increased risk of cancer. Referral will be required for any red flags for high suspicion of breast cancer (HSCAN) definitions, as identified in Community HealthPathways (CHP).

Ensure a referral date is obtained by the referring provider.

Timeframe for completing investigations for the person with suspected breast cancer

Optimally, investigations should be completed **within 2 weeks.**

Referral options are clearly communicated with the person and their whānau, including details of expected timeframes, who to contact if they don’t hear from the referred service within the timeframe given, and any costs for accessing services.

When referring a person for investigation or procedures, referrers must ensure that:

- the person is aware and encouraged to have a support person with them
- the procedure or investigation is explained to them in a way that they can understand, including in different formats and with a translator, as required
- Māori are referred to kaupapa Māori services if they choose and as available

- an investigation assessment is undertaken to identify if an individual can tolerate the preparation, procedure, or investigation
- assessment and support are given to address any possible barriers of accessing services – for example:
    - transport
    - financial
    - family situation that may impact on the decision to consent to a procedure
    - coordinating appointments and/or offering the person and their whānau, whānau focused bookings.

To support accurate triage, referral information must include the following information:

- signalled as high suspicion of cancer or urgent (see criteria in 4.2)
- medication and allergies
- past medical history and current comorbidities
- results of relevant investigations
- notification if an interpreter service is required
- concerns that may require support or affect ability to attend appointments, undergo investigations or treatment.

Timeframe for referring to a specialist

Any person with symptoms suspicious of breast cancer is referred to a specialist following guidelines in Community HealthPathways. The specialist should see the person with proven or suspected cancer and their whānau **within 2 weeks** of diagnosis or a high suspicion of cancer. If necessary, prior discussion should facilitate referral (Community HealthPathways 2024).

If symptoms are concerning and the referral is not accepted, primary care 'safety netting' for re-assessment is recommended.

3.5 Supportive care and communication

Assess the supportive care needs of the person and their whānau. Where appropriate, give them:

- access to investigations and care following referral, such as financial, transport and personal support
- help to deal with psychological and emotional distress, for example, anxiety, depression, interpersonal concerns, and adjustment difficulties to a potential diagnosis of cancer
- information regarding supportive services that they can engage with at a time suitable to them
- referrals to kaupapa Māori and Whānau Ora services at their request.

3.5.1 Communication with the person/whānau receiving care

Health providers/professionals

- Provide information regarding their role in the health care team.
- Explain who the person and their whānau is being referred to, the reason for the referral and the expected timeframes for appointments.

- Explain the need for the person and their whānau to return to the GP if signs and symptoms change while waiting for investigations and/or assessment.
- Request that the person notify the delegated clinic or their own GP practice if the specialist has not been in contact within the expected timeframe.
- Discuss the range of services available (including private), referral options, and any costs associated with accessing these services.
- Inform the person and their whānau that they can contact or request a referral to NGOs that provide supportive care, including local Māori health service providers/professionals.
- Give written and verbal information regarding planned investigations and referral services.
- Clarify that the person and their whānau understands the information that has been communicated.

"Whānau face multiple barriers to primary care". "That safety net had been taken away."
Person/whānau insights

Communication between health services

- Include relevant information in referrals, as identified in Steps 3.3 and 3.4.
- Notify the referrer of the acceptance of referral and expected timeframes to be seen or decline of referral and reasons for decline.
- Notify changes in referral status (either changes to symptoms or wait time changes).
- Ensure roles and responsibilities are understood, including GP/lead clinician responsible for checking and notifying results to the person and their whānau.
- Acknowledge date of referrals.

3.6 Measuring and monitoring

Below is a list of national measures that inform this step and can be used to monitor and measure cancer care.

- **BreastScreen Aotearoa National Policy and Quality Standards (Ministry of Health 2022)**

Criterion 3.2: The provider ensures women progress through the assessment pathway in a timely manner.

3.2.1 Target: ≥90% of women are offered an assessment appointment date that is within 15 working days of their final mammogram. For the purposes of data entry in the Radiology Information System (RIS), an offer is a minimum of three telephone calls followed by a letter, where contact is not initially made.

3.2.2 Target: all women who do not require biopsy at assessment receive final results within five working days of their visit.

3.2.3 Target: ≥90% of percutaneous needle biopsies (level 2 assessment) are performed within five working days of the first assessment visit.

3.2.4 Target: ≥90% of women requiring level 3 assessment (that is open surgical excision biopsy or vacuum-assisted excision) will have their operation performed within 20 working days of being notified of the need for this operation. **3.2.5** Target: ≥80% of percutaneous needle biopsy (level 2 assessment) results are reported to the Lead Provider within three working days of the reporting pathology laboratory receiving the specimen.

3.2.6 Target: ≥90% of written histology reports for percutaneous needle biopsy (level 2 assessment) and open surgical excision biopsy or vacuum-assisted excision (level 3 assessment) are received by the Lead Provider within five working days of the pathology laboratory receiving the specimen.
3.2.7 Target: ≥90% of women receive the results within seven working days of their final percutaneous needle biopsy.
3.2.8 Target: where the diagnosis is cancer, ≥90% of women have their initial treatment performed within 31 calendar days of the final decision to treat (treatment is defined as an MDT decision).

- **Faster Cancer Treatment**

Early detection through primary care that identifies high suspicion of cancer/urgent, the referral to a specialist is for the person to be seen within two weeks. The following FCT business rules will apply:

  - **31-day Health Target -** All people will receive their first cancer treatment (or other management) within 31 days from decision to treat. As a minimum, 90% of patients will receive their cancer treatment (or other management) within 31 days from the decision to treat.
  - **62-day indicator** – All people with a high suspicion of cancer (without a confirmed pathological diagnosis of cancer at referral) will receive their cancer treatment within 62 days from date of referral. As a minimum, 90% of patients will receive their cancer treatment (or other management) within 62 days from date of referral to first treatment.

Step 4: Diagnosis, staging and treatment planning

This step outlines the process for confirming the diagnosis and stage of cancer and the planning of subsequent treatment in discussion with the person and their whānau.

Health services work with the person and their whānau to diagnose and stage the cancer, provide treatment options and recommendations, and help meet any identified needs. This generally occurs in secondary or tertiary health care services. Assessment and investigation results, including discussions between the appropriate multidisciplinary team members and the person and their whānau, will help to determine the treatment options recommendations and plan.

4.1 Te Tiriti o Waitangi

Health providers/professionals enable and enact Te Tiriti o Waitangi through:

- prioritising access for Māori to diagnostics, staging, and treatment planning
- supporting the person and their whānau to access holistic care, including mātauranga Māori traditional practices and emotional and spiritual support to complement medical treatment
- talking with the person and their whānau and clinicians about current or intended use of rongoā or other complementary therapies to understand the potential benefits, risks and/or other implications
- consultation with the person and their whānau regarding what they would like to happen to any bodily tissue or organs removed as part of their diagnostic workup and treatment.

4.2 Specialist Triaging

Referrals must be triaged in a timely manner **within 1–2 working days** by an appropriately trained person (nurse specialist or doctor) and consistent with FCT Business Rules and/or other prioritisation classification criteria.

If the person/whānau present with one of the following red flags, the referral should be triaged as High Suspicion of Cancer (HSCAN).

- Diagnosed cancer on fine needle aspiration or core biopsy (or results suspicious of malignancy).
- Imaging suspicious of malignancy.
- Discrete, hard breast lump with fixation (with or without skin tethering).
- Discrete breast lump that presents in women with one or more of the following:
    - age 40 years or older, and persists after her next period or presents after menopause
    - aged younger than 40 years and the lump is increasing in size or where there are other reasons for concern (*see risk factors below), such as strong family history
    - with previous breast cancer or ovarian cancer

- suspected inflammatory breast cancer or symptoms of breast inflammation that have not responded to a course of antibiotic
- spontaneous unilateral bloody nipple discharge.
- Women aged over 40 years with recent onset unilateral nipple retraction or distortion.
- Women aged over 40 years with unilateral eczematous skin or nipple change that does not respond to topical treatment.
- Men aged 50 years and older with a unilateral, firm sub-areolar mass, which is not typical gynaecomastia or is eccentric to the nipple.

*** Risk factors**

  - A first degree relative diagnosed with breast cancer before aged 50 years.
  - Two or more first degree relatives on the same side of the family diagnosed with breast cancer at any age.
  - Two second degree relatives on the same side of the family, diagnosed with breast cancer, at least one before age 50.
  - First or second degree relative diagnosed with bilateral breast cancer.
  - First or second degree relative with male breast cancer.
  - Known to carry a breast cancer susceptibility gene mutation (e.g., *BRCA1* or *BRCA2*).
  - Radiation therapy delivered to the chest or mediastinum.

4.3 Specialist investigations (diagnostic work up for breast cancer)

Where possible the diagnosis of cancer is established or confirmed before treatment is planned. The person with suspected breast cancer is worked up in a dedicated breast care centre using triple assessment to enable preoperative definitive diagnosis. Investigations to diagnose breast cancer may include:

- appropriate breast imaging tests including bilateral mammography and ultrasound (if conventional imaging is insufficient to help guide treatment, consider MRI)*
- ultrasound of the axilla (including fine-needle aspiration of nodes if the axillary ultrasound is abnormal)
- breast core biopsy, if not already undertaken (which allows determination of breast cancer receptor profiles [ER, PR, HER2]).

*Other imaging modalities may be considered depending on individual risk factors, such as breast density.

Timeframe for referral to breast cancer nurse

Referral to breast cancer nurse **within 1 week** of definitive diagnosis.

Timeframe for completing investigations

Diagnostic investigations should be completed **within 2 weeks** of the initial specialist assessment.

4.3 Staging

Accurately staging cancer helps guide treatment decisions and is a significant contributor to providing a cancer prognosis (Te Aho o Te Kahu 2021a). When cancer is diagnosed, additional investigations are often conducted to establish how much the cancer has grown and if, and how far, it has spread. The following additional tests may be required:

- routine staging with, for example, computed tomography (CT) and bone scan are not recommended for most people with early breast cancer
- CT Staging is appropriate for the person with confirmed locally advanced or nodal disease and for any person with clinical symptoms or clinical suspicion of metastatic disease. PET-CT scan may also be an appropriate modality (Health New Zealand | Te Whatu Ora National Indications for Publicly funded PET-CT 1 March 2024)
- preoperative staging should be considered for locally advanced disease, inflammatory breast cancer, those with symptoms or signs suggestive of metastatic disease and those planned for neoadjuvant chemotherapy.

To note, pathological staging may occur after surgery for some cancers.

4.4 Performance status

Performance status is assessed to inform prehabilitation and treatment recommendations and documented using the Eastern Cooperative Oncology Group (ECOG) Performance Status Scale (ECOG-ACRIN Cancer Research Group, nd). The degree of benefit of treatment for an individual may vary according to diagnostic, staging and prognostic factors and performance status.

In older people with cancer, a geriatric assessment measures their level of fitness and treatment tolerability. People over the age of 70 years should undergo some form of geriatric assessment (COSA 2022). Screening tools can be used to identify those who will benefit most from these comprehensive assessments.

People over the age of 70 years should undergo a geriatric assessment (COSA 2013; palliAGED 2018). Screening tools can be used to identify those people in need of a comprehensive geriatric assessment (Decoster et al. 2015). This assessment can be used to help determine life expectancy and treatment tolerance and guide appropriate referral for multidisciplinary intervention that may improve outcomes.

Geriatric assessments can help tailor the treatment plan, address any issues found with the multidisciplinary team, and provide interventions to optimise the person’s general health status (Seghers et al 2023).

4.5 Clinical genetics

Referral to clinical genetic services for breast cancer is considered if features of the cancer suggest a genetic predisposition, such as:

- early age onset
- histology (if available)
- multiple primary cancers.

The person should be assessed for the possibility of a breast cancer predisposition gene and considered for genetic counselling/testing if appropriate. For more information refer to eviQ's.

Referral guidelines for breast cancer risk assessment and consideration of **genetic testing**.

Germline genetic testing (family risk)

People with breast cancer should be referred for genetic work-up early in their treatment journey if they fulfil germline testing criteria.

For further information see **Genetic Health Service New Zealand**.

4.6 Multidisciplinary meeting

Optimal cancer care requires a multidisciplinary approach to tailor treatment plans to the person's needs in collaboration with their whānau and the health care team. Women with a breast cancer diagnosed during pregnancy are managed by a specialist multidisciplinary care team which includes an obstetrician and a gynaecologist (if appropriate).

Referral to breast cancer MDM following nationally agreed referral criteria is undertaken to inform treatment recommendations or further assessment and investigation.

- The multidisciplinary team discusses complex cancer cases and recommends a treatment plan.
- Results of all relevant tests and access to images must be available for the MDM.
- Information about the person and their whānau, their overall condition, co-morbidities, personal preferences, and social and cultural circumstances must be available for the MDM.
- The level of discussion may vary, depending on the person and clinical and supportive care factors.
- The proposed treatment plan will be recorded in the person's medical record and MDM database, and communicated to the referrer and primary care provider **within 2 days** of the MDM.
- The lead clinician and/or team discusses the recommendations from the MDM with the person and their whānau **within 2 weeks** of the MDM, so they are able to take part in decision-making about ongoing treatment and care.

MDMs are managed by the following standards:

- ***Standards for High-Quality Multidisciplinary Meetings (MDMs) in Aotearoa New Zealand*** (Te Aho o Te Kahu 2024)
- ***HISO 0038.4:2021 Cancer Multidisciplinary Meeting Data Standard*** (Te Aho o Te Kahu 2021b)

Timeframe for the MDM

MDM takes place **within 2 weeks** of confirmed diagnosis and staging.

4.6.1 Treatment options and recommendation

Following the MDM, treatment intent is discussed with the person and their whānau. Treatment intent ranges from curative, tumour control and palliation to control symptoms.

Treatment, referral options and recommendations are discussed with the person and their whānau to enable informed decision making in accordance with their rights and ability to exercise independence, choice, and control. The advantages and disadvantages of recommended treatments and associated potential side effects are discussed in plain language with interpreter support as required. Other support may be required for this discussion such as kaumātua/kuia, chaplain and nursing staff as required.

Further discussion between health services (primary care and specialists) and the person and their whānau will ensure comorbidities are well managed. This optimises the person's health to be able to cope with the proposed cancer treatment and its effects.

4.6.2 Fertility preservation

A referral to fertility preservation alongside a contraception assessment and advice should be discussed with the person and their whānau dependent on age, type of cancer and the treatment planned. An early, collaborative, and multidisciplinary approach with the person is undertaken, which maximises the opportunity for best practice contemporary care and consideration for future fertility.

4.6.3 Prehabilitation

Prehabilitation (preparing for treatment) is the process of optimising a person's overall wellbeing prior to undergoing cancer treatment. Ideally, prehabilitation should begin as early as possible after a cancer diagnosis to allow adequate time for interventions to take effect. A nominated service provider is tasked with coordinating prehabilitation. Prehabilitation is initiated and assessed by primary or hospital services and may require referral to additional services for example:

- nutrition - weight changes, which can be a significant issue for people, and may require referral to a dietitian before, during and after treatment
- smoking cessation
- medications to ensure optimisation and correct adherence
- rongoā
- psychosocial support
- physiotherapy or exercise programme – aerobic, respiratory training, resistance training for people preparing for surgery.

4.6.4 Clinical trials

Where eligible, the person with cancer is offered and supported to participate in research or clinical trials. Many emerging treatments are only available as clinical trials and may require referral to specific trial centres.

4.7 Supportive care and communication

4.7.1 Care coordination

Care coordination supports the navigation through diagnosis, staging, and treatment planning. The person and their whānau receive tailored education and are enabled to ask questions, seek further clarity around treatment options and recommendations, and gain support around the potential next steps in the pathway. The care coordinator will assist in the coordination and navigation of care, support the person and their whānau, and complete any additional referrals that may be required.

People and their whānau who have someone coordinating their care are often more satisfied with the opportunities provided to them and the decision-making process about their care (Cancer Institute NSW 2010). All breast care centres have dedicated breast cancer or cancer nurse coordinators to facilitate the persons treatment pathway and provide guidance and support from diagnosis through follow up.

The person and their whānau will have a clear understanding of what to expect at each step of the cancer pathway, with a clear point of contact should they require support or further information (refer Principle 6).

4.7.2 Supportive Care

Assess the supportive care needs of the person and their whānau, including:

- care coordinator is in place
- prehabilitation
- contraception and fertility support
- early referral to palliative care
- information and education needs are met (refer to Step 3.5).

4.7.3 Communicating with the person/whānau receiving care

Health providers/professionals

- Ensure that person and their whānau have the option to have additional support people with them when having discussions.
- Explain and discuss with person’s diagnosis, staging and treatment options and recommendations in plain language.
- Discuss the advantages and disadvantages of treatment options and associated potential side effects.
- Provide information, education suppport and resources in a format that is useful to the person and their whānau (and that they can share with others as they wish).
- Identify any barriers or challenges that may prevent the person and their whānau from accessing services or attending treatment.
- Discuss with the person and their whānau ways to improve health outcomes and wellbeing prior to and during treatment.
- Advise the person and their whānau of their lead clinician and care coordinator.
- Clarify that the person and their whānau have understood the information that has been communicated.
- The person and their whānau may require time to process the information that has been relayed, prior to consenting to treatment.

> ***“A lot of people need to travel hours to get to an appointment and don’t have vehicles or family support.”***
> Person/whānau insights

- Coordinate scheduling of appointments with the person and their whānau to ensure access barriers are minimised and attendance is supported.
- Discuss with the person and their whānau the need to update or complete their advance care planning and/or advance directive.

Communicating between health services

- Coordinate appointments among health services, in discussion with the person and their whānau to make best use of their time and resources and to support access.
- Communicate the diagnosis, MDM recommendations and treatment plan between health services.
- Discuss and agree shared care arrangements, in symptom and co-morbidity management, supportive care and referral to local services.
- Confirm the lead clinician and provide handover details as necessary.

4.8 Measuring and monitoring

Below is a list of national measures that inform this step and can be used to monitor and measure cancer care.

- **Te Aho o Te Kahu Quality Performance Indicator**
    - Route to diagnosis: Proportion of people who are diagnosed with cancer within 30 days of an emergency or acute (unplanned) hospital admission (Te Aho o Te Kahu, 2024).
- **Te Aho o Te Kahu Breast Cancer Quality Performance Indicators**
    - BrCQI 1. Stage at diagnosis, by
        - ethnicity and age within and outside the screening age range (45-69)
        - mode of diagnosis (BSA-detected vs symptomatic vs interval (cancer diagnosed within two years of a negative BSA mammogram)).
    - BrCQI 23. Timely diagnosis: Proportion of patients for whom time from referral to diagnosis of breast cancer is within 28 days.

The route to diagnosis determines the FCT pathway that a person will be on.

- **Faster Cancer Treatment**
    - **31-day Health Target -** For the 31-day pathway, the MDM and person and their whānau agreement to treatment is completed as soon as possible following MDM to enable them to meet the 31day Health Target.
    - **62-day indicator** – If a person does not attend MDM within 28 days, they are unlikely to meet the 62-day pathway.
- **MDM Standards**

  For audit compliance with standards and standards audit tool the following may be used:

    - ***Standards for High-Quality Multidisciplinary Meetings (MDMs) in Aotearoa New Zealand*** (Te Aho o Te Kahu 2024)
    - ***HISO 0038.4:2021 Cancer Multidisciplinary Meeting Data Standard*** (Te Aho o Te Kahu 2021b)

Step 5: Treatment

This step describes publicly funded optimal treatments for people diagnosed with breast cancer by trained and experienced clinicians and team members, in an appropriate environment.

The treatment of breast cancer is informed by the following guidelines:

- European School of Oncology (ESO) and European Society for Medical Oncology (ESMO) *Clinical Practice Guidelines: Breast Cancer*. **esmo.org/Guidelines/Breast-Cancer**
- *2nd New Zealand Consensus Guidelines for Advanced Breast Cancer* (ABC-NZ2) **breastcancerfoundation.org.nz**
- Systemic Anticancer Therapy breast cancer protocols (ACT-NOW project, Te Aho o Te Kahu) **srl.org.nz/regimens/breast**
- *Radiotherapy Dose Fractionation – fourth edition*, The Royal College of Radiologists UK **rcr.ac.uk**
- eviQ breast treatment protocols:
    - **eviq.org.au/medical-oncology/breast/adjuvant-neoadjuvant**
    - **eviq.org.au/medical-oncology/breast/metastatic**
    - **eviq.org.au/radiation-oncology/breast**

5.1 Te Tiriti o Waitangi

Health providers/professionals enable and enact Te Tiriti o Waitangi through ensuring that:

- services achieve equity of access and outcomes irrespective of where treatment occurs
- equity in access to treatment is facilitated through active and coordinated support of financial and social barriers to treatment
- tikanga Māori and rongoā is integrated and applied in discussion with treating clinicians
- a referral to the Kia Ora E Te Iwi (KOETI) progamme (Cancer Society) occurs as required
- the person and their whānau have all the information and resources to support their mana motuhake (empowerment).

5.2 Treatment intent

The treatment intent should be established in a multidisciplinary meeting/setting (see Step 4.6), documented in the person's medical record, and shared with the person and their whānau as appropriate. Discuss the advantages and disadvantages of recommended treatments and associated side effects in plain language to support the person and their whānau to make an informed decision. If there is more than one suitable treatment option, services could facilitate the decision making of the person and their whānau by having all specialties involved in the single appointment.

Timeframes for starting treatment are informed by evidence-based guidelines where available. The treatment team recognises that shorter timeframes for appropriate consultations and treatment often provide a better experience for people.

Confirm decisions, and consent for treatment. If treatment is agreed, develop a treatment care plan that includes:

- what the treatment and intent is, alongside likely impacts
- ways to improve health outcomes and wellbeing during treatment, this includes where they can receive support and information
- expected timeframes.

5.2.1 Additional considerations

Undertake a needs assessment and address any possible barriers or challenges (such as financial, social, care coordination and cultural obligations) that may prevent the person and their whānau from accessing treatment. Formally involving the palliative care team/service early can benefit the person receiving care, so it is important to know and respect each person's preference.

The person's current or intended use of any traditional or complementary therapies, including rongoā, will need to be discussed. Information resources should be provided so the person and their whānau can review and take these away for further reflection and sharing, including contact information for services and key care coordinators.

Initiate advance care planning discussions with the person and their whānau before treatment begins (this could include appointing a substitute decision-maker and completing an advance care directive).

Ensure prehabilitation is underway (as appropriate) to optimise treatment outcomes, and manage any comorbidities, prior to treatment. Depending on the treatment decided, additional prehabilitation activities may need to be initiated.

If initial treatment is declined, discuss next steps fully with the person and their whānau. This includes the option to re-engage with initial treatment if they change their minds, with the understanding it may no longer be viable and/or suitable.

Ensure an escalation plan with key contact people is developed if the person becomes unwell before treatment begins.

5.3 Treatment options

The type of treatment recommended for breast cancer depends on the type, stage and location of the cancer and the person's age, health, and preferences. Treatment may include a combination of the items listed below, concurrently, or sequentially, to maximise outcome.

The person may also be supported to participate in research or clinical trials where available and appropriate. Many emerging treatments are only available as clinical trials and may require referral to certain trial centres.

5.3.1 Early and locally advanced breast cancer treated with curative intent

Surgery

Surgery for early breast cancer involves either breast-conserving surgery or mastectomy. Breast conserving surgery followed by radiation therapy is as effective as mastectomy for most people with early breast cancer.

All women with early-stage invasive breast cancer who are candidates for breast conserving surgery are offered the choice of breast-conserving surgery or mastectomy.

The person with invasive breast cancer and a clinically and radiologically negative axilla should generally be offered sentinel node biopsy. Axillary treatment with surgery and/or radiation therapy should be considered for people with nodal disease.

Mastectomy can be performed with or without immediate breast reconstruction. People should be fully informed of their options and offered the option of immediate or delayed reconstructive surgery if appropriate, irrespective of whether they are available locally.

Oncoplastic breast surgery should be considered where appropriate to ensure the person has the best possible outcome. Surgery may involve the breast surgeon and plastic surgeon working together because some reconstructions are very complex. It is important that the person is given enough time to consider their reconstructive options. This may require more than one appointment with the treating surgeon. It is the responsibility of the multidisciplinary team to ensure the person is referred in a timely manner to allow for adequate planning of the surgery.

Timeframes for starting treatment

Surgery should occur ideally **within 4 weeks** of the decision to treat (for invasive breast cancer).

Radiation therapy

People suitable for radiation therapy please refer to The Radiation Oncology Model of Care (Te Aho o Te Kahu 2024).

In most cases, radiation therapy is recommended for the person with early breast cancer after breast conserving surgery.

Hypo-fractionated radiation therapy (a three to four-week course) should be considered for most people with early breast cancer undergoing breast-conserving therapy. For people with low-risk early-stage breast cancer a short course of five treatments over a week, should be considered.

Radiation therapy following mastectomy should be considered for selected people. Partial breast irradiation can be considered for selected people with early breast cancer.

Timeframes for starting treatment

For people who don't have adjuvant chemotherapy, radiation therapy should begin **within 8 weeks** of surgery**.**
For people who have adjuvant chemotherapy, radiation therapy should begin **3-4 weeks** after chemotherapy.

Systemic anti-cancer therapy

The person may benefit from systemic anti-cancer therapy, including as a primary treatment for women with inflammatory breast cancer.

People suitable for systemic anti-cancer therapy (SACT) please refer to The Model of Care for Adult Systemic Anti-Cancer Therapy Services in Aotearoa (Te Aho o Te Kahu 2024).

If appropriate, goserelin for preventing chemo-induced menopause should begin at least one week prior to chemotherapy. Neoadjuvant therapy, usually chemotherapy, may be appropriate for an increasing number of breast cancers, which may include tumours where the response to neoadjuvant chemotherapy may direct future therapy (e.g., triple-negative, and HER2-positive cancers, locally advanced or inflammatory breast cancers as well as some larger operable breast cancers to down-stage tumours), either to make them operable or to allow breast-conserving therapy. The receptor profile of the breast cancer (ER, PR, HER2) assessed by pathologists on the core biopsy is essential in making decisions about the appropriateness and nature of neoadjuvant therapies.

For early breast cancers following surgery, a further discussion at the MDM will determine the appropriateness and type of systemic anti-cancer therapy. All people with invasive cancer should be considered for systemic anti-cancer therapy.

All people with HER2-positive breast cancers (> 5 mm) should be considered for HER2-directed therapy. All people with hormone receptor-positive breast cancer should be considered for antihormonal therapy.

A core biopsy is the recommended sample for evaluating receptor profile in breast cancer. The information about receptor profile should be made available to the treating teams including the pathologist evaluating the cancer resection specimen. This information helps to identify cases of discordance where further assessment is required and to reduce unnecessary repeat testing.

For the person who has not had a complete pathological response to neoadjuvant therapy, repeat assessment of receptor profile on the resected breast cancer tissue is required to plan ongoing treatment.

Adjuvant bisphosphonates improve survival and should be considered for selected people being treated for breast cancer with curative intent.

Timeframes for starting treatment

Neoadjuvant chemotherapy should begin **within 4 weeks** of the decision to treat.

Adjuvant chemotherapy should begin **within 6 weeks** of surgery.

Adjuvant chemotherapy for triple-negative and HER2 - positive breast cancer should begin **within 4 weeks** of surgery.

Endocrine therapy should begin as soon as appropriate after completing chemotherapy, radiation therapy and/or surgery (and in some cases will be started in the neoadjuvant setting).

5.3.2 Treatment for advanced breast cancer

Care is complex and requires a multidisciplinary approach guided by ESMO and ABC-NZ2 guidelines and access to publicly funded drugs.

Treatment may include any of the previous modalities for curative treatment plus the inclusion of palliative care. Systemic anti-cancer therapy and radiation therapy are frequently used in the advanced breast cancer setting.

Palliative care

Palliative care is an integral part of cancer treatment and care. It offers specific assessments, supportive care programmes, and services focused on living with and dying from cancer. Early referral and access to palliative care is a critical aspect of best practice. The person and their whānau who cannot be offered curative treatment, or declines curative treatment, as well as those with a significant symptom burden, should be offered prompt access to palliative care services.

5.3.3 Managing the impact of cancer therapy

Treatment includes managing the impact of cancer therapy, including the management of physical symptoms, distress, and other clinical issues a person and their whānau may experience.

Early referral to other health services, including palliative care, is recommended to help manage:

- early management for acute pain postoperatively to avoid chronic pain
- side effects of chemotherapy such as neuropathy, cardiac dysfunction, nausea, and vomiting; managing these side effects is important for improving quality of life
- managing complex medication regimens, multiple medications, assessment of side effects and assistance with difficulties swallowing medications – referral to a pharmacist may be required
- upper limb problems following surgery including decreased range of movement, which may delay radiation therapy – referral to a physiotherapist may be required
- upper limb and breast lymphoedema following lymphadenectomy/radiation therapy – this is a potential treatment side effect in the person with breast cancer that has a significant effect on survivor quality of life; referral (preferably preoperatively) to a health professional with accredited lymphoedema management qualifications, offering the full scope of complex lymphoedema therapy, should be encouraged (prospective monitoring, particularly for high-risk people is recommended)
- disfigurement and scarring from appearance-altering treatment (and possible need for a prosthesis), which may require referral to a specialist psychologist, psychiatrist, or social worker. For subsidy information refer to **breast prosthesis**
- coping with hair loss and changes in physical appearance. For subsidy information refer to **wigs**
- nutritional support
- fatigue.

5.3.4 Clinical Trials

The person is supported to participate in research or clinical trials where available and appropriate. Many emerging treatments are only available as clinical trials and may require referral to certain trial centers (refer principle 8).

5.4 Treatment summary

A treatment summary will be provided by the treating service for the person and their whānau and clinicians involved in their follow up care, including primary care. The summary includes:

- relevant diagnostic tests performed and results
- cancer diagnosis, characteristics, stage, and prognosis
- treatment received
- current toxicities (severity, management and expected outcomes)
- interventions and treatment plans from other health providers/professionals
- potential long-term and late effects of treatment
- supportive care services provided
- recommended follow up and surveillance.

As the person with breast cancer often receive treatment from more than one service, all services need to ensure they have provided the relevant information to the treatment summary.

5.5 Supportive care and communication

Supportive care needs for the person and their whānau are assessed for all cancer treatment modalities, including surgery, chemotherapy, radiation, and palliative care.

Assess challenges and changes in health status that may arise for the person and their whānau due to their treatment, including:

- access to expert health providers/professionals with specific knowledge about the psychosocial needs of people undergoing breast cancer care
- potential isolation from normal support networks, particularly for rural people who are staying away from home for treatment
- general health care issues (such as smoking cessation and sleep disturbance), which can be referred to a general practitioner
- altered cognitive function due to chemotherapy or radiation therapy, which requires strategies such as maintaining written notes or a diary and repetition of information
- loss of fertility, sexual dysfunction or other symptoms associated with treatment or surgically or chemically induced menopause, which requires sensitive discussion and possible referral to a clinician skilled in this area
- decline in mobility or functional status
- management of physical symptoms such as pain, arthralgia, and fatigue
- weight changes – may require referral to a dietitian before, during and after treatment
- assistance with beginning or resuming regular exercise – referral to an exercise physiologist or physiotherapist.

The person and their whānau may also need to manage:

- financial issues related to loss of income (through reduced capacity to work or loss of work) and additional expenses as a result of illness or treatment
- advance care planning, which may involve appointing a substitute decision-maker and completing an advance care directive
- legal issues (completing a will, care of dependent children) or making an insurance, superannuation or social security claim based on a terminal illness or permanent disability.

5.5.1 Care coordination

Care coordination will support the person and their whānau through treatment. The care coordinator supports the implementation and activation of supportive care needs through the provision of information, education and referral regarding the concerns and issues that have been raised by the person and their whānau (refer Principle 5).

5.5.2 Communication with the person/whānau receiving care

Health providers/professionals

- Confirm lead clinician and other treatment teams/members involved in care.
- Advise the person and their whānau of the expected timeframes for treatment and ensure they have a key contact person.
- Clarify that the person and their whānau understand the information that has been communicated.

- Refer the person to supportive care and other health care services to optimise wellbeing.

Communication between health services

- Confirm the lead clinician and handover as necessary.
- Confirm the diagnosis, treatment intent, recommendations, and plan, including potential side effects.
- Communicate supportive treatment plan and referrals between health services.
- Advise of any enrolment in clinical trial as appropriate.
- Advise of changes in treatment or medications.

> ***"A whānau need to have a choice of services including rongoā, mirimiri etc. and know how to access tohunga, particularly for whānau who may be disconnected from te ao Māori"***
>
> Person/whānau insights

5.6 Measuring and monitoring

Monitoring and measuring are key components of contemporary best practice. Below is a list of national measures that inform this step and can be used to monitor and measure cancer care.

- **Te Aho o Te Kahu Breast Cancer Quality Performance Indicators**
  - BrCQI 5. Breast conserving surgery: Proportion of females with breast cancer (invasive and/or ductal carcinoma in situ (DCIS)) who undergo breast-conserving surgery (BCS).
  - BrCQI 6. Immediate reconstruction at the time of mastectomy: Proportion of patients receiving reconstruction at the same time as mastectomy.
  - BrCQI 7 Delayed reconstruction: Proportion of patients referred for consideration of delayed reconstruction who have reconstruction within 12 months of referral.
  - BrCQI 8. Single surgery: Proportion of patients undergoing breast-conserving surgery who received an additional (breast) operation or operations to ensure adequate excision of the primary tumour.
  - BrCQI 10. Metastatic breast cancer seen by medical oncologist: Proportion of patients with metastatic breast cancer (MBC) seen by a medical oncologist.
  - BrCQI 14 Adjuvant endocrine therapy adherence: Proportion of women with endocrine-sensitive early breast cancer who complete five years of endocrine therapy (after first script dispensed). Measure: proportion still being dispensed endocrine therapy at:
    - 6 months
    - 12 months
    - annually thereafter to 5 years.
  - BrCQI 15. Adjuvant radiation therapy following breast-conserving surgery: Proportion of patients receiving adjuvant radiation therapy to the breast after breast-conserving surgery for invasive breast cancer.
  - BrCQI 16. Adjuvant radiation therapy following mastectomy: Proportion of post-mastectomy patients receiving adjuvant radiation therapy.
  - BrCQI 24. Timeliness to treatment: Proportion of patients receiving their first definitive treatment (of surgery or chemotherapy or endocrine therapy) within 45 days of date of diagnosis.
  - BrCQI 25. Time to surgery: Proportion of patients treated with surgery within:
    - six weeks of decision to treat with breast surgery

        - eight weeks of decision to treat with breast surgery and undergoing immediate reconstruction.
    - BrCQI 26. Adjuvant chemotherapy: Percentage of patients treated with adjuvant chemotherapy, starting within six weeks of surgery.
    - BrCQI 27. Access to radiation therapy: Proportion of patients who start adjuvant radiation therapy within
        - eight weeks of surgery
        - six weeks of completing adjuvant chemotherapy.

FCT applies to a person's first treatment of a new cancer.

- **Faster Cancer Treatment**
    - **31-day Health Target** – All people will receive their first cancer treatment (or other management) within 31-days from decision to treat. As a minimum, 90% of patients will receive their cancer treatment (or other management) within 31-days from the decision to treat.
    - **62-day indicator –** All first treatments will be started within 62-days from referral or 31-days from decision to treat (includes surgery, chemotherapy, and radiation therapy). As a minimum, 90% of patients will receive their cancer treatment (or other management) within 62-days from date of referral to first treatment. (Ministry of Health | Manatū Hauora. 2023.)

- **Medical oncology treatment timeframes**
    - Category A – urgent within 48 hours
    - Category B – semi-urgent within 2 weeks
    - Category C – routine within 4 weeks
    - Category D – combined modality treatment (determined by scheduling of the two treatment modalities).

- **Radiation oncology treatment timeframes**[5]
    - Category A – treat within 24 hours.
    - Category B – treat within 10 working days.
    - Category C (palliative intent) – treat within 10 working days
    - Category C (curative intent) – treat within 20 days.
    - Category D – combined modality treatment (determined by scheduling of the two treatment modalities).
    - Category E (benign disease) – treat within 80 working days.

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[5] Radiation Oncology Waitlist Data Business Rules – Te Whatu Ora

Step 6: Care after treatment

The person accesses appropriate follow up and surveillance and is supported to achieve their optimal health after cancer treatment.

The transition from active treatment to care after treatment is critical to supporting long-term health. Survivorship care planning is the umbrella term for care described in this step, and whilst aspects of this care begin at diagnosis (prehabilitation, supportive care, etc) the term itself is not often used until this part of the pathway.

In some cases, people will need ongoing specialist care, and in other cases a shared follow up care arrangement with their general practitioner may be appropriate. This will be informed by the type and stage of a person's cancer, the treatment they have received and the needs of the person and their whānau (refer Principle 5).

The following references inform care after treatment for the person with breast cancer:

- The Cancer Survivorship in New Zealand - **Consensus Statement**
- *2nd New Zealand Consensus Guidelines for Advanced Breast Cancer* (**ABC-NZ2**)

6.1 Te Tiriti o Waitangi

Health providers/professionals enable and enact Te Tiriti o Waitangi through:

- offering options for holistic recovery and wellness care within hauora Māori models of care
- providing access to clinical, psychological, social, financial, and cultural support to transition back into recovery and life after cancer treatment.
- offering options for holistic recovery and wellness care within hauora Māori models of care
- provide access to clinical, psychological, social financial and cultural support to transition back into recovery and life after cancer treatment.

6.2 Survivorship care planning

After completing initial treatment, a designated member of the multidisciplinary team (most commonly nursing or medical staff involved in the person's care) should undertake survivorship care planning with the person and their whānau.

The survivorship care plan should cover, but is not limited to:

- the provision of a treatment summary
- information on what medical follow up and surveillance is planned
- how care after treatment will be provided, including by whom and where, and contact information
- inclusion of care plans from other health providers to manage the consequences of cancer and cancer treatment
- information about wellbeing, and primary and secondary prevention health recommendations that align with chronic disease management principles (Step 1)
- rehabilitation recommendations and any referrals
- available support services, including cancer NGO survivorship programmes/services (these may be tumour specific)
- signs and symptoms to be aware of that may indicate the cancer has recurred
- the process for rapid re-entry to specialist medical services.

As people are often followed up for five or more years after treatment, this plan needs to be regularly reviewed and updated to reflect changes in the person's clinical and psychosocial status. All health providers involved in the follow up care are responsible for updating the care plan.

6.3 Treatment summary

A treatment summary will be provided by the treating service(s) to the person and their whānau and to those clinicians involved in follow up care (refer Section 5.4).

6.4 Rehabilitation and recovery

Rehabilitation may be required at any point in the care pathway. Issues that may need to be dealt with at this stage include managing cancer-related fatigue, coping with cognitive and/or physical changes, returning to study or work, and ongoing adjustment to cancer and its sequelae. See information in section 5.33 and 5.5 about managing the impact of cancer therapy.

6.5 Follow up and surveillance

Follow up and surveillance can have multiple functions, including:

- evaluation of treatment response
- early identification of recurrence
- early detection of new primary tumours
- monitoring and management of complications
- optimisation of rehabilitation
- provision of support to the person and their whānau.

Care after treatment is driven by predicted risks and an individuals' clinical and supportive care needs.

Care includes regular physical examinations and medical tests and is based on the medical guidelines for the specific type and stage of cancer, the treatment that's been received, and the needs and wishes of the person and their whānau.

For people with breast cancer, care is informed by the following guidelines:

- a follow-up schedule will be planned based on the persons tumour characteristics and will include information on:
    - who will be providing follow up care for example, their specialists, their primary care provider (including palliative care) or if there will be a shared care approach (refer Principle 1). Generally, a 5-year follow up including mammogram and breast specialist review will occur, but this can be extended if required.
    - what tests (such as blood or radiological tests) need to be carried out, who is responsible for ordering them, how frequently they need to be done, and who will discuss the results with the person and their whānau
    - the frequency people should be seen and for what timeframe. Follow-up appointments are more frequent initially, becoming less frequent as time goes on
    - who the person and/or their whānau should contact if they have any concerns.

- symptoms suggestive of metastatic disease will require further investigation such as: chest x-rays, bone scans, CT scans, PET-CT scans or blood tests
- follow ups may include updating personal history, enquiry about persistent symptoms, and/or new symptoms, and a physical breast examination. If lymphoedema a concern limb circumference measures should be conducted. Family cancer history should be updated
- in the case of a pathogenic variant, the clinician should prompt predictive testing in close blood relatives and recommend referral to a familial cancer service
- annual mammography (unless the person underwent a bilateral mastectomy) should be undertaken. In some cases it may be appropriate to also undertake breast ultrasound or MRI
- after 5 years, people may re-entre the regular breast screening programme
- toxicity related to treatment should be monitored and managed, including bone health and cardiovascular health, there is a significant role for physiotherapy in preventing osteoporosis
- premenopausal women who develop amenorrhoea are at risk of rapid bone loss and there is evidence that oral bisphosphonates are effective in reducing bone loss
- continue to prompt good general health
- adherence to ongoing recommended treatment such as endocrine therapy should be reviewed with ongoing support and side effects managed proactively to optimise adherence.

6.6 Signs and symptoms of recurrent disease

The likelihood of recurrence depends on many factors usually related to the type of cancer, the stage of cancer at presentation and the effectiveness of treatment. Educating the person and their whānau about potential symptoms of recurrence is critical for timely management.

Breast cancer signs and symptoms that necessitate further investigation include:

- local recurrence - a breast mass, skin nodules, enlarged lymph nodes or inflammatory cancer symptoms. Some local recurrences are detected at follow up imaging only or on routine follow up for asymptomatic people
- metastatic disease - consider the possibility of metastatic breast cancer if the person has a symptom that persists over several weeks, tending to get worse rather than better and is otherwise unexplained. This includes symptoms indicative of bone and brain metastases e.g., persistent pain, loss of power and sensation in limbs, persistent headaches, confusion, visual disturbances.

6.6.1 Rapid re-entry to specialty services

Service providers have a process for rapid re-entry to specialty services for suspected recurrence and advise people and their whānau of how to do this if required.

Managing recurrent or metastatic disease is complex and should therefore involve all the appropriate specialties in a multidisciplinary team including palliative care where appropriate.

All cases should undergo investigation (staging scans) to establish the extent of disease and be re-biopsied if possible; biopsies should have receptor status re-evaluated.

A complete assessment of the sites of disease including CT of the abdomen and pelvis and of the chest plus bone scans, or PET-CT and blood tumour markers should also be undertaken. Brain CT or MRI may be required. Assessment of organ function and comorbidities are necessary.

6.7 Clinical trials

Where eligible, the person with cancer is offered and supported to participate in research or clinical trials. These might include studies to understand survivor's issues, to better manage treatment side effects, or to improve models of care and quality of life.

6.8 Supportive care, care coordination and communication

As the person transitions from active treatment, their needs often change, and health providers need to support the person to cope with life beyond their active treatment (refer Principles 5, 6 and 7).

Health providers work with people and their whānau to assess and address their needs, including:

Supportive care

Health providers undertake a needs assessment to inform the survivorship care plan and make appropriate referrals.

Coordinated care

Follow up care is provided closer to home and appointments coordinated to make access easier for the person and their whānau, where possible.

Continuity of care is provided where possible and appropriate – for example, the person and their whānau should have the ability to continue to be supported by members of the care coordination team who they have developed a relationship with during their journey.

> ***"The need for care doesn't stop when treatment finishes."***
> ***"Whānau feel forgotten when treatment ends."***
> Person/whānau insights

Effective and timely communication

The person and their whānau are provided with a copy of their survivorship care plan, including information on any referrals that have been made.

Health providers involved in the follow up care of an individual have access to the up-to-date care plan, especially if primary care is involved, and can update the plan as required.

6.9 Measuring and monitoring

- **Te Aho o Te Kahu Breast Cancer Quality Performance Indicators**
    - BrCQI 19. Overall and relative survival:
        - Overall survival at 5 and 10 years from diagnosis.
        - Relative survival at 5 and 10 years from diagnosis.

Step 7: Palliative and end-of-life care

Palliative and end-of-life care provides the person facing life-limiting conditions with holistic support and coordinated services based on their specific needs.

Palliative and end-of-life care is an essential health service to optimise the person's quality of life until they die. This involves supporting the person's physical, psychosocial, spiritual, and cultural needs, and supporting their whānau with bereavement support. It is appropriate at any stage in a serious illness.

> **"You matter because you are you. You matter to the last moment of your life, and we will do all we can to help you not only die peacefully, but also to live until you die."**
> Dame Cecily Saunders

7.1 Te Tiriti o Waitangi

Health providers/professionals enable and enact Te Tiriti o Waitangi through ensuring that:

- the person and their whānau have the choice to access Kaupapa Māori support services for living with cancer (stable, progressive or end-stage)
- rurality does not restrict access to critical clinical, social, cultural and resource support for the person and their whānau
- palliative and end-of-life care is integrated across health services.

7.2 Palliative care

Palliative care prevents and relieves suffering through the early identification, correct assessment and treatment of pain and other symptoms, whether physical, psychosocial, or spiritual, and improves the quality of life (World Health Organisation 2020).

Palliative care should be provided by all health professionals. Palliative care uses a team approach with non-specialist services (primary care, community care and generalist hospital services) supported by specialist palliative care services (hospitals, hospices). Palliative care services must be integrated with primary, community and secondary care, responsive and locally appropriate.

In many cases the whānau are the primary caregivers, and it is the responsibility of health providers/professionals to support the whānau. Health and social service providers/professionals will work together to ensure that the care for the person and their whānau is seamless, and that resources are used efficiently and effectively.

Primary, secondary, and palliative care services work alongside the person and their whānau to decide an appropriate place of care and the support required to implement the advance care plan.

Palliative care is provided in different settings, depending on availability and the needs and preferences of the person and their whānau. Settings include:

- in the community/a person's own home
- aged residential care

- hospice care
- hospital care.

Palliative care is most effective when considered early in the course of an illness. Early palliative care not only improves quality of life for the person and their whānau but also reduces unnecessary hospitalisations and use of health care services.

Referral to specialist palliative care services will be appropriate for those with a level of need that exceeds the resources of the generalist palliative care provider. Referral criteria for adult palliative care services in New Zealand are available on the Ministry of Health |Manatū Hauora website.

Clinical trials may improve palliative care and support the management of a person's symptoms of advanced cancer (Cancer Council Australia, nd; Cancer Council Victoria, nd). The treatment team should support the person and their whānau to participate in research and clinical trials where available and appropriate.

7.3 End-of-life care

The person with advanced cancer may reach a time when active treatment is no longer appropriate, symptoms are increasing, and functional status is declining. Dying is a normal part of every person's life course and every person has the right to die well.

Te Ara Whakapiri: Principles and guidance for the last days of life (Ministry of Health | Manatū Hauora 2017b) defines the essential components (baseline assessment, ongoing assessment, after-death care) and considerations required to provide quality end-of-life care for adults. This covers all care settings, including the home, residential care, hospitals, and hospices.

The multidisciplinary team needs to share the principles of a palliative approach to care when making end-of-life decisions with the person and their whānau. Honest communication is essential to ensure they have time to prepare and appropriate support is in place.

If the person does not already have an advance care plan or advance directive in place, a designated member of the team should encourage them to develop one in collaboration with their whānau.

It is essential for the treatment team to consider the appropriate place of care, the person's preferred place of death, and the support needed for the person and their whānau.

The treatment team should also ensure that whānau receive the information, support, and guidance about their role according to their needs and wishes.

7.4 Assisted dying

The person requesting assisted dying information is supported to access this service. Health providers/professionals are required to be aware of their rights and responsibilities should the person raise this with the health care team. For more information visit **Assisted Dying Service**.

7.5 Supportive care and communication

An essential component of palliative and end-of-life care is assessing and ensuring the needs of the person and their whānau are met.

Supportive care needs may arise, including:

- assistance for dealing with emotional and psychological distress from grief and fear of death and dying
- specific support for the person and their whānau where a parent is dying and will leave behind bereaved children or adolescents
- facilitating conversations with the person and their whānau regarding an advance care plan, an advance directive and appointing an EPA
- access to appropriate equipment
- supporting whānau with carer training
- information and education around 'What to expect when someone is dying'
- identifying a key contact person.

7.5.1 Care coordination

Palliative care services must be integrated, responsive and well-coordinated. The person receiving palliative/supportive and end-of-life care may require several different types of care from different services and/or providers. The primary care team/palliative care team assists in coordinating care with the wider health care team. It is important that the different providers and services are aware of and responsive to the various facets of care that the person and their whānau require.

"Palliative care is a tapu space and requires a careful, holistic approach."
Person/whānau insights

7.5.2 Communicating with the person/whānau receiving care

Health providers/professionals

- Encourage the person and their whānau to designate a lead person(s) to communicate with care providers.
- Encourage discussions about the expected disease course, considering personal and cultural beliefs and expectations.
- Discuss shared goals of care.
- Discuss palliative care options, including community-based services as well as dying at home.
- Empower the person and their whānau to determine the care that they may want to provide, with or without support services.
- Refer the person to palliative care in the community according to their wishes.
- Discuss supportive care options available.

"The difference in his wellbeing after rongoā was huge. He was still dying, but he didn't look sick anymore."
Person/whānau insights

Communicating between health services

Clear communication between all providers/professionals involved in coordinating care is essential. This includes:

- confirming the lead clinician and handover as necessary
- providing updates on the person's prognosis
- initiating supportive and palliative care referrals
- advising on end-of-life care planning.

7.5.2 Palliative care and end of life key national guidelines

- *Advance care planning.* (Te Tahu Hauora | Health Quality & Safety Commission New Zealand. 2022.) **hqsc.govt.nz**
- *A Guide For Carers.* (**Hospice New Zealand** 2019).
- *Mauri Mate: A Māori palliative care framework* (**Hospice New Zealand**.2019)
- *Te Ara Whakapiri: Principles and guidance for the last days of life* (**Ministry of Health** | Manatū Hauora 2017b)
- *The Palliative Care Handbook* (**Hospice New Zealand** 2019b)
- *Information on assisted dying for the public* (**Health New Zealand** | Te Whatu Ora, nd)

7.6 Measuring and monitoring

- **Ngā Paerewa Pairuri Tāngata | Standards for Palliative Care (Hospice New Zealand 2019a)**
    - Standard 1: Assessment of needs.
    - Standard 2: Developing the care plan.
    - Standard 3: Providing the care.
    - Standard 4: Supporting and caring for the family, whānau and carers.
    - Standard 5: Transitions within and between services.
    - Standard 6: Grief support and bereavement care.
    - Standard 7: Culture of the organisation.
    - Standard 8: Quality improvement and research.
    - Standard 9: Staff qualification and training.

- **National palliative care outcomes and reporting framework** (under development).