

Optimal care pathway for people with keratinocyte cancer (basal cell carcinoma or squamous cell carcinoma)

SECOND EDITION



Optimal care pathway for people with keratinocyte cancer (basal cell carcinoma or squamous cell carcinoma)

SECOND EDITION

Endorsed by



Australian Government
Cancer Australia



Statement of acknowledgement

We acknowledge the Traditional Owners of Country throughout Australia and their continuing connection to the land, sea and community. We pay our respects to them and their cultures and to Elders past, present and emerging.

This work is available from the Cancer Council website <www.cancer.org.au/OCP>.

First published in December 2015. This edition published in June 2021.

ISBN: 978 1 76096 155 8

Cancer Council Victoria and Department of Health Victoria 2021, *Optimal care pathway for people with keratinocyte cancer (basal cell carcinoma or squamous cell carcinoma)*, 2nd edn, Cancer Council Victoria, Melbourne.

Enquiries about this publication can be sent to <optimalcare.pathways@cancervic.org.au>.

Contents

Welcome and introduction	i
Summary	1
Intent of the optimal care pathways	5
Optimal care pathway resources	6
Principles of the optimal care pathway	8
Principle 1: Patient-centred care	8
Principle 2: Safe and quality care	10
Principle 3: Multidisciplinary care	11
Principle 4: Supportive care	12
Principle 5: Care coordination	14
Principle 6: Communication	15
Principle 7: Research and clinical trials	17
Summary – optimal timeframes	18
Optimal care pathway	19
Step 1: Prevention and early detection	19
Step 2: Presentation, initial investigations and referral	22
Step 3: Diagnosis, staging and treatment planning	26
Step 4: Treatment	33
Step 5: Care after initial treatment and recovery	41
Step 6: Managing recurrent, residual or metastatic disease	46
Step 7: End-of-life care	51
Contributors and reviewers	54
Appendix A: Supportive care domains	56
Appendix B: Psychological needs	57
Appendix C: Special population groups	58
Appendix D: Complementary therapies	64
Appendix E: Members of the multidisciplinary team for keratinocyte cancer	65
Resource list	66
Glossary	70
References	72

Welcome and introduction

On behalf of the optimal care pathways team, welcome to the second edition of the optimal care pathway guides to better cancer care.

Some cancers are simple to treat; many are complex. But the principles of high-quality care are similar for all cancers and, if followed, are likely to achieve the best outcomes for patients and their families and carers.

Australia has an excellent healthcare system, but the pathway for cancer patients can be complex. Often multiple health professionals are involved and both public and private types of health care are used. Our cancer survival rates are as good as anywhere in the world, but many patients still report difficulties during their care and, importantly, outcomes among different groups vary across the country.

That's why we have developed the optimal care pathways. The optimal care pathways describe an integrated model of cancer care that puts the patient's needs first, along with the best of technical care. They provide a national standard for the high-quality cancer care that all Australians should expect. We all believe when it comes to cancer care, our patients and their families deserve the best care available.

The optimal care pathways should be read and understood by all those involved in cancer care. This includes all health professionals, from surgeons, oncologists, haematologists, radiologists, general practitioners and other doctors to allied health professionals, nurses and managers of cancer services. Trainees in all disciplines should absorb the messages contained in the optimal care pathways.

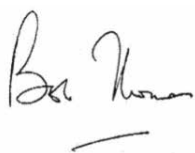
We also recommend the optimal care pathways to all people affected by cancer, both patients and carers. We encourage you to use the optimal care pathways to guide discussions with your healthcare team and to help you make informed decisions about what's right for you. There is a specific optimal care pathway for Aboriginal and Torres Strait Islander people, while the *Guides to best cancer care* for consumers are available in eight languages.

The optimal care pathways are endorsed by Cancer Australia, the former National Cancer Expert Reference Group (a committee that reported to the former Australian Health Ministers Advisory Committee and, through this committee, to the former Council of Australian Governments Health Council) and all states and territories. The optimal care pathways have Australia-wide acceptance and government support.

It's important to note that the optimal care pathways are cancer pathways, not clinical practice guidelines. The decision about 'what' treatment is given is a professional responsibility and will usually be based on current evidence, clinical practice guidelines and the patients' preferences.

The optimal care pathways were updated in 2020, at a time when the global COVID-19 pandemic was challenging the Australian healthcare sector in an unprecedented way. The pandemic led to rapid practice change, including greater uptake of telehealth. Where appropriate, learnings have informed the review of the pathways.

I would like to thank everyone involved for their generous contribution to the development and revision of the optimal care pathways. This includes many health professionals (noted in the optimal care pathways) and the strong support of federal and state governments.



Professor Robert J S Thomas OAM

Chair, Optimal Care Pathways Project Steering Committee

Summary

Support: Assess supportive care needs at every step of the pathway and refer to appropriate health professionals or organisations.

The optimal care pathways describe the standard of care that should be available to all cancer patients treated in Australia. The pathways support patients and carers, health systems, health professionals and services, and encourage consistent optimal treatment and supportive care at each stage of a patient's journey. Seven key principles underpin the guidance provided in the pathways: patient-centred care; safe and quality care; multidisciplinary care; supportive care; care coordination; communication; and research and clinical trials.

This quick reference guide provides a summary of the *Optimal care pathway for people with keratinocyte cancer (basal cell carcinoma or squamous cell carcinoma)*.

Please note that not all patients will follow every step of the pathway. Most patients with keratinocyte cancer will not proceed beyond step 2.

Step 1: Prevention and early detection

Prevention

- Solar radiation is the major environmental cause of all skin cancers. People should be encouraged to use a combination of sun protection measures whenever UV index levels are 3 or above (during sun protection times).
- Quit smoking.
- Don't use solariums.

Risk factors

Environmental and exogenous risk factors:

- chronic sun exposure
- multiple solar keratoses
- solarium use
- intensive UV exposure in childhood and adolescence
- past exposure to arsenic.

Personal risk factors:

- some rare genetic conditions predisposing to skin cancer
- skin types I and II
- a history of blistering sunburn
- increasing age
- a previous melanoma or BCC/SCC
- solar keratoses.

Lifestyle risk factors:

- outdoor occupations

- recreational sun exposure.

Medical risk factors:

- UVA and psoralen (PUVA) treatment for psoriasis
- immunosuppression
- previous radiotherapy
- some photosensitising medications.

Screening recommendations

The patient's first point of contact for detecting keratinocyte cancer early should be their GP.

Early detection

Management of all patients should include education about skin awareness and encouraging regular self-examination, education about skin cancer prevention for the person at risk and their family, and education about average, increased and high-risk patient factors.

For most patients, screening is opportunistic, unless patients are in a high-risk category, whereby 6–12-monthly reviews with an adequately trained and experienced clinician is warranted.

See the **optimal care pathway for keratinocyte cancer** for patients considered at high-risk.

Checklist

- A total skin check conducted
- Education on self-examination provided
- Education on being sun-smart provided
- Recent weight changes discussed and the patient's weight recorded
- Alcohol intake discussed and recorded and support for reducing alcohol consumption offered if appropriate
- Smoking status discussed and recorded and brief smoking cessation advice offered to smokers
- Physical activity recorded
- Referral to a dietitian considered
- Referral to a physiotherapist or exercise physiologist considered

Step 2: Presentation, initial investigations and referral

Signs and symptoms

The following should be investigated by a GP:

- any new or changing skin lesions or lesions that do not respond to treatment

- a rapidly growing skin lesion that remains unresolved after a month.

SCC: Induration (thickening) or tenderness in the erythematous base of a scaling lesion.

Checklist

- Signs and symptoms recorded
- New or changing skin lesions assessed

Step 2: Presentation, initial investigations and referral continued

BCC: A dome-shaped skin lesion, pink or red scaly patch, waxy or pearly hard skin-coloured lesion, a sore that will not heal or with blood vessels.

GP investigations

Some lesions will be confidently diagnosed on clinical examination and history; others will require a biopsy, particularly early lesions.

The best approach for most lesions is complete excision. If complete excision is not appropriate, small representative samples, such as by one or more punch biopsies, shave biopsy or curettage, can be useful.

Most BCCs that are clinically favourable can be satisfactorily excised under local anaesthetic with direct primary closure in an ambulatory care setting.

Referral

Most BCCs/SCCs do not require referral.

For a complicated BCC, consider referral for:

- incompletely excised lesions where surgical expertise is required for appropriate margins or lesions with a high risk of recurrence
- lesions involving the central face, ears, genitalia, digits, palm of the hand or lower leg
- poorly defined lesions
- lesions fixed to underlying structures
- lesions involving or lying adjacent to significant nerves

- large lesions
- neurotropic spread
- lymphovascular invasion.

For a complicated SCC, consider referral for:

- an SCC of the central face, scalp, lip, ear or genitals
- lesions larger than 20 mm in diameter or 6 mm deep
- chronically immunosuppressed patients with multiple aggressive SCCs
- histologically aggressive head and neck SCCs
- locally recurrent and/or persistent SCCs.

Referral options

At the referral stage, the patient's GP or other referring doctor should advise the patient about their options for referral, waiting periods, expertise, if there are likely to be out-of-pocket costs and the range of services available. This will enable patients to make an informed choice of specialist and health service.

Communication

The GP's responsibilities include:

- explaining to the patient and/or carer who they are being referred to and why
- supporting the patient and/or carer while waiting for specialist appointments
- informing the patient and/or carer that they can contact Cancer Council on 13 11 20.

Checklist continued

- Dermoscopy conducted where appropriate
- Suspect lesion biopsied or completely excised
- Supportive care needs assessment completed and recorded, and referrals to allied health services actioned as required
- Patient notified of support services such as Cancer Council 13 11 20 if required
- Referral options discussed with the patient and/or carer including cost implications

Timeframe

Investigations and/or curative treatment should be performed **within 4 weeks** of initial presentation to a GP or as soon as practicable.

If a diagnosis is required, referral to specialist should be **as soon as practicable** according to clinical concern (e.g. 4 weeks for a presumed SCC and 8 weeks for a presumed BCC).

Step 3: Diagnosis, staging and treatment planning

Diagnosis

All patients should have had a complete skin check recently.

Most diagnoses occur in the primary care setting before specialist referral.

Specialist management may include complete excision or re-excision with recommended margins, imaging including medical photography (in some circumstances), radiation therapy or reconstructive surgery.

Staging

Usually a biopsy is sufficient to diagnose keratinocyte cancer.

In cases of SCC, clinically suspected lymph node metastases should be confirmed by fine needle aspiration cytology if possible. Open surgical biopsy should be avoided.

Genetic testing

While most keratinocyte cancers develop through sun exposure, several genes and hereditary syndromes increase the risk of keratinocyte cancer development. See the **optimal care pathway for keratinocyte cancer** for more information.

Treatment planning

Selected patients with advanced stage primary keratinocyte cancer, lymph node metastases and keratinocyte cancer in unusual sites are best managed by a multidisciplinary team in a specialist facility.

Research and clinical trials

Consider enrolment where available and appropriate. Search for a trial <www.australiancancertrials.gov.au>.

Checklist

- Diagnosis confirmed
- Final histology obtained
- Performance status and comorbidities measured and recorded
- Patient discussed at an MDM and decisions provided to the patient and/or carer
- Clinical trial enrolment considered
- Patient referred to support services (such as Cancer Council) as required

Step 3: Diagnosis, staging and treatment planning continued

Communication

The lead clinician's¹ responsibilities include:

- discussing a timeframe for diagnosis and treatment options with the patient and/or carer
- explaining the role of the multidisciplinary team in treatment planning and ongoing care
- encouraging discussion about the diagnosis, prognosis, advance care planning and palliative care while clarifying the patient's wishes, needs, beliefs and expectations, and their ability to comprehend the communication
- providing appropriate information and referral to support services as required
- communicating with the patient's GP about the diagnosis, treatment plan and recommendations from multidisciplinary meetings (MDMs).

Checklist continued

- Supportive care needs assessment completed and recorded and referrals to allied health services actioned as required
- Treatment costs discussed with the patient and/or carer

Timeframe

Biopsy should be considered **before referral**, where appropriate.

Step 4: Treatment

Establish intent of treatment

- Curative (most keratinocyte cancer will be cured with simple excision or radiation therapy)
- Palliative

Surgery involves excision with an adequate margin of skin and subcutaneous tissue – usually fat. Margin-control surgery may be considered for some patients. Curettage and diathermy may be an option for some keratinocyte cancers. Referral to a specialist plastic surgeon may be required.

Definitive radiation therapy should be recommended for patients who have declined or have contraindications for conventional surgery, and for cases of persistent, recurrent or advanced keratinocyte cancer where adjuvant radiation can complement surgery to improve control rates.

Adjuvant radiation therapy should be recommended for patients with incompletely excised keratinocyte cancer where re-excision would result in significant morbidity, patients with locally advanced or node-positive disease or patients with neurotropic or recurrent lesions.

Other therapies for SCC in situ and early-stage keratinocyte cancer when surgery is not suitable include curettage and electrocautery, cryotherapy, 5-fluorouracil or imiquimod cream, photodynamic therapy and oral acitretin.

Palliative care

Early referral to palliative care can improve quality of life and in some cases survival. Referral should be based on need, not prognosis. For more, visit the Palliative Care Australia website <www.palliativecare.org.au>.

Communication

The lead clinician and team's responsibilities include:

- discussing treatment options with the patient and/or carer including the intent of treatment as well as risks and benefits
- discussing advance care planning with the patient and/or carer where appropriate
- communicating the treatment plan to the patient's GP
- helping patients to find appropriate support for exercise programs where appropriate to improve treatment outcomes.

Checklist

- Intent of treatment established
- Risks and benefits of treatments discussed with the patient and/or carer
- Treatment plan discussed with the patient and/or carer and provided to the patient's GP
- Treating specialist has adequate qualifications, experience and expertise
- Supportive care needs assessment completed and recorded, and referrals to allied health services actioned as required
- Early referral to palliative care considered
- Advance care planning discussed with the patient and/or carer

Timeframe

Surgery: Patients will usually be having active treatment **within a 3 month** period.

Radiation therapy: Adjuvant radiation therapy should start as soon as possible once surgical wounds have healed, usually **within 4–6 weeks** of surgery.

Other therapies: Treatment should start as soon as diagnosis and staging has occurred and the treatment modality becomes available, ideally **within 4 weeks** of the MDM.

¹ Lead clinician – the clinician who is responsible for managing patient care. The lead clinician may change over time depending on the stage of the care pathway and where care is being provided.

Step 5: Care after initial treatment and recovery

All patients with a previous skin cancer are advised to undergo at least an ongoing annual skin examination.

Provide a treatment and follow-up summary to the patient, carer and GP outlining:

- the diagnosis, including tests performed and results
- tumour characteristics
- treatment received (types and date)
- current toxicities (severity, management and expected outcomes)
- interventions and treatment plans from other health professionals
- potential long-term and late effects of treatment and care of these
- supportive care services provided
- a follow-up schedule, including tests required and timing

- contact information for key healthcare providers who can offer support for lifestyle modification
- a process for rapid re-entry to medical services for suspected recurrence.

Communication

The lead clinician's responsibilities include:

- explaining the treatment summary and follow-up care plan to the patient and/or carer
- informing the patient and/or carer about secondary prevention and healthy living
- discussing the follow-up care plan with the patient's GP
- providing information about the symptoms and signs of recurrence.

Checklist

- Treatment and follow-up summary provided to the patient and/or carer and the patient's GP
- Importance of self-examination and sun protection strategies discussed with the patient and/or carer
- Supportive care needs assessment completed and recorded and referrals to allied health services actioned as required
- Patient-reported outcome measures recorded

Step 6: Managing recurrent, residual or metastatic disease

Detection

Patients should be advised to be alert for any new or changing skin lesion, lumps/masses or new/persistent symptoms.

Treatment

Evaluate each patient for whether referral to the original multidisciplinary team is appropriate. Treatment will depend on the location and extent of disease, previous management and the patient's preferences.

Advance care planning

Advance care planning is important for all patients but especially those with advanced disease. It allows them to plan for their future health and personal care by thinking about their values

and preferences. This can guide future treatment if the patient is unable to speak for themselves.

Survivorship and palliative care

Survivorship and palliative care should be addressed and offered early. Early referral to palliative care can improve quality of life and in some cases survival. Referral should be based on need, not prognosis.

Communication

The lead clinician and team's responsibilities include:

- explaining the treatment intent, likely outcomes and side effects to the patient and/or carer and the patient's GP.

Checklist

- Treatment intent, likely outcomes and side effects explained to the patient and/or carer and the patient's GP
- Supportive care needs assessment completed and recorded and referrals to allied health services actioned as required
- Advance care planning discussed with the patient and/or carer
- Patient referred to palliative care if appropriate
- Routine follow-up visits scheduled

Step 7: End-of-life care

Palliative care

Consider a referral to palliative care. Ensure an advance care directive is in place.

Communication

The lead clinician's responsibilities include:

- being open about the prognosis and discussing palliative care options with the patient
- establishing transition plans to ensure the patient's needs and goals are considered in the appropriate environment.

Checklist

- Supportive care needs assessment completed and recorded, and referrals to allied health services actioned as required
- Patient referred to palliative care
- Advance care directive in place

Visit our guides to best cancer care webpage <www.cancercareguides.org.au> for consumer guides. Visit our OCP webpage <www.cancer.org.au/OCP> for the optimal care pathway and instructions on how to import these guides into your GP software.

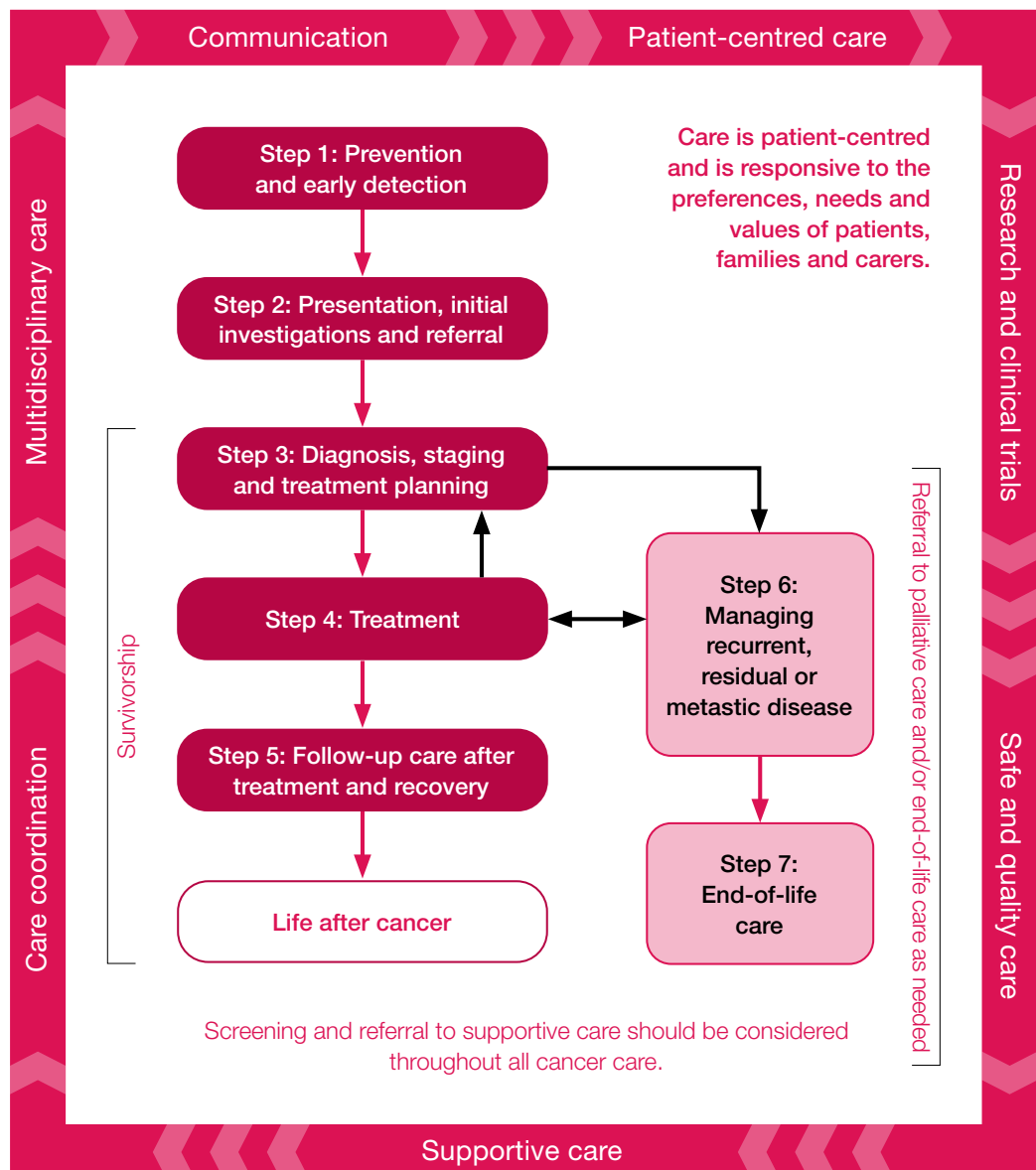
Intent of the optimal care pathways

Optimal care pathways map seven key steps in cancer care. Each of these steps outlines nationally agreed best practice for the best level of care. While the seven steps appear in a linear model, in practice, patient care does not always occur in this way but depends on the particular situation (e.g. the type of cancer, when and how the cancer is diagnosed, prognosis, management, the patient's decisions and their physiological response to treatment).

The principles underpinning optimal care pathways always put patients at the centre of care throughout their experience and prompt the healthcare system to deliver coordinated care.

The optimal care pathways do not constitute medical advice or replace clinical judgement, and they refer to clinical guidelines and other resources where appropriate.

Figure 1: The optimal care pathway



Optimal care pathway resources

There are three resources for each pathway: an optimal care pathway, a quick reference guide for health professionals and a guide to best cancer care for patients, carers and families.

Optimal care pathways

This optimal care pathway is designed for **health professionals and health services**. However, **patients and carers** may find useful information in this version to help understand the processes their treating health professionals are following.

This resource aims to:

- assist health professionals to provide optimal care and support to patients with cancer, their families and carers
- provide optimal timeframes for delivering evidence-based care
- emphasise the importance of communication and collaboration between health providers and people affected by cancer
- assist and inform new health professionals or trainees who are entering the cancer care workforce
- provide value to health systems to identify gaps in current cancer services, bring about quality improvement initiatives and improve how services are planned and coordinated. Adherence to the pathways should be measured wherever possible.

Visit the Cancer Council website <www.cancer.org.au/OCP> to view the optimal care pathways.



Quick reference guides

The quick reference guides are for **health professionals and health services**. They provide a summary of each optimal care pathway for health professionals and patients.

The quick reference guides include:

- optimal timeframes within which tests or procedures should be completed
- checklists with indicators related to recommendations in the optimal care pathway.

Visit the Cancer Council website <www.cancer.org.au/OCP> to view the quick reference guide for this optimal care pathway.



Guides to best cancer care

The guides to best cancer care are **consumer** resources that help patients understand the optimal cancer care that should be provided at each step. Carers, family and friends may also find the guides helpful.

The guides to best cancer care:

- include optimal timeframes within which tests or procedures should be completed
- include prompt questions to support patients to understand what might happen at each step of their cancer journey and to consider what questions to ask
- provide information to help patients and carers communicate with health professionals
- are available in eight languages.

Visit the Cancer Council's website <www.cancercareguides.org.au> to view the guides to best cancer care.



Optimal care pathway for Aboriginal and Torres Strait Islander people with cancer

The *Optimal care pathway for Aboriginal and Torres Strait Islander people with cancer* provides a tool to help reduce disparities and improve outcomes and experiences for Aboriginal and Torres Strait Islander people with cancer. This resource can be used in conjunction with the optimal care pathway for each cancer type.

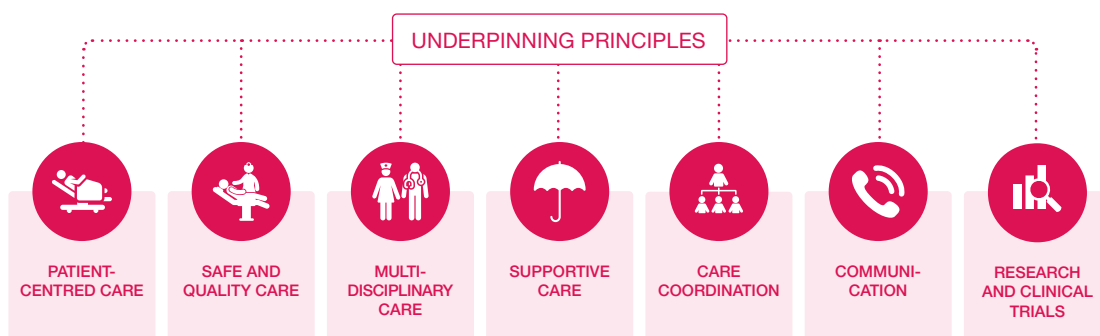
Visit the Cancer Australia website <<https://www.canceraustralia.gov.au/affected-cancer/atsi/resources-health>> to view the optimal care pathway for Aboriginal and Torres Strait Islander people.



Principles of the optimal care pathway

The seven principles of care define appropriate and supportive cancer care that is the right of all patients and the right of those caring for and connected with them.

Figure 2: The seven principles underpinning the optimal care pathway



Principle 1: Patient-centred care



Patient-centred care informs and involves patients in their care and respects and responds to the preferences, needs and values of patients, families and carers.

A patient-centred focus increases the experience and satisfaction of patients, their families and carers, and staff, as well as safety and cost-effectiveness (ACSQHC 2019a).

Patient-centred care means:

- patients are informed and involved in decisions about their cancer and the treatment, post-treatment and recovery program ahead
- patients, and with the patient's consent, their families and carers are provided with access to appropriate and accessible health information
- respect for the cultural and religious beliefs of patients and their families is demonstrated when discussing the diagnosis of cancer
- active communication is used to engage patients, their families and carers in the care process – an essential step for patients to be informed
- care processes are mutually beneficial for patients and providers
- special needs are addressed – for example, the needs of people with disabilities or mental health issues.

Informed choice and consent

An informed patient has greater confidence and competence to manage their cancer journey.

Health professionals are responsible for enabling patients to make informed choices according to their preferences, needs and values. Patients should be provided with:

- individualised and timely information and guidance about their treatment
- details of their care, including the advantages and disadvantages of each treatment, the associated potential side effects, the likely outcomes on their performance status (how well a patient is able to carry out activities of daily life) and subsequently their quality of life and any financial implications, at each stage of the pathway (ACSQHC 2020).

Health professionals have a legal responsibility to obtain consent for all procedures from either the patient or their substitute decision-maker if they are not deemed competent.

Referral choices and informed financial consent

Patients have the right to receive the information they need to be able to make an informed decision on where to be referred for treatment. Treating specialists and practitioners should clearly explain the costs or how to find out the costs of services, tests and treatment options upfront to avoid consumers experiencing unexpected costs.

At the time of referral, the patient's general practitioner or other referring doctor should discuss the different options for referral, waiting periods, expertise, if there are likely to be out-of-pocket costs and the range of services available. This will enable patients to make an informed choice of specialist and health service. Referral decisions influence the care patients receive along the pathway and the direct and indirect costs they and their carers may incur. Different referrals have different costs:

- referral to a public hospital, which may involve some costs
- initial referral to a private specialist with associated costs, with the option of ongoing treatment in a public hospital at any time
- referral to a patient's choice of practitioner for immediate and ongoing private hospital management with associated costs.

Patients should be made aware that even though public hospital health care is 'free' to all Australian citizens and most permanent residents of Australia, there are still associated direct costs such as:

- over-the-counter medication and prescriptions
- wound dressings
- travel costs
- parking fees
- tests that are not covered by Medicare.

A cancer diagnosis and treatment may affect a patient's or carer's income. This is an indirect cost associated with cancer. Social work support is essential to help patients and their families deal with this issue. Patients should be advised not to undergo private care with significant out-of-pocket expenses if financially constrained. Specialists in private practice need to explain costs at the start of each new treatment to acknowledge the cumulative out-of-pocket expenses that patients can incur.

For more information on informed financial consent see Cancer Council's 'Standard for informed financial consent' <<https://www.cancer.org.au/health-professionals/resources/informed-financial-consent>>.

Financial counselling services can provide advice on dealing with financial difficulties. These services can be accessed publicly (via social workers at hospitals, financial counsellors at neighbourhood houses or rural financial aid), privately or through cancer support services such as local charity groups or social work services.

For practical and financial assistance, patients may consider Cancer Council's financial services <<https://www.cancer.org.au/about-cancer/patient-support/practical-and-financial-assistance.html>>.

Shared care

Shared care between a cancer specialist and primary care health professional is delivered in two or more settings by two or more professionals. The primary care provider is usually a general practitioner but can include nurses and allied health practitioners. Shared care can be delivered throughout the care pathway including during treatment, follow-up care, survivorship care and end-of-life care.

Shared care offers several advantages to patients, including the potential for treatment closer to home and more efficient care with less duplication and greater coordination. Evidence comparing shared care and specialised care indicates equivalence in outcomes including recurrence rate, cancer survival and quality of life (Cancer Research in Primary Care 2016).

Telehealth can enable efficient shared care and should be explored for all patients. Patients in some rural or remote locations may access specialists via Medicare Benefit Scheme funded telehealth consultations. General practitioners working in rural or remote locations should be aware of specialist multidisciplinary teams with facilities to reduce the travel burden and costs for patients.

Principle 2: Safe and quality care



Hospitals and health professionals are responsible for providing safe and quality care.

Health professionals need to have appropriate training and experience to undertake treatment for keratinocyte cancer. Patients should be referred to an individual practitioner or service with appropriate expertise.

Safe and high-quality care is care provided by appropriately trained and credentialed health professionals who undertake regular quality reviews of their performance, contribute to regular audits of their care and are actively involved in continuing professional development. Hospitals and clinics must have the equipment, staff numbers, policies and procedures in place to support safe and high-quality care for cancer patients. Patients should be offered the safest options for care, which may include using telehealth (Cancer Australia 2020).

Hospital quality committees should ensure all health care is informed by evidence, and health professionals and health service managers (including executives) have a responsibility to evaluate and monitor their practice. Optimal care pathways provide a framework to help evaluate and monitor practice over time. Services should be routinely collecting relevant minimum datasets to support benchmarking, quality care and service improvement. Hospital committees and health professional peak bodies should be auditing this process (ACSQHC 2017, 2020).

The Australian Council on Health Standards <<https://www.achs.org.au/>> has created a set of indicators that helps hospitals conform to appropriate standards.

Patient-reported experience and outcome measures

Patient-reported experience measures (PREMs) and patient-reported outcome measures (PROMs) should be incorporated into routine cancer care.

PREMs are used to obtain patients' views and observations on aspects of healthcare services they have received (AIHW 2018). Patient experience data is collected for specific services and then relayed to service providers to instigate improvements in patient services (ACSQHC 2019b).

The Australian Hospital Patient Experience Question Set (AHPEQS) is a tool used to assess patient experiences of treatment and care in a private or public hospital. AHPEQS helps to improve the safety and quality of health care by allowing organisations to understand the patient's perspective (ACSQHC 2019b; AIHW 2018).

PROMs measure aspects of a person's health status such as symptoms, quality of life and needs and are collected directly from patients either online, via a smartphone or through paper-based means.

Collecting PROMs, and then instigating an appropriate clinical response, has been shown to prolong survival, reduce health system use and improve patients' quality of life. While there are many sets of PROMs questions that are relevant to any cancer patient, specific questions can be tailored to particular cancer types, populations or different phases of cancer care.

Principle 3: Multidisciplinary care



Multidisciplinary care is an integrated team approach that involves all relevant health professionals discussing all relevant treatment options and making joint recommendations about treatment and supportive care plans, taking into account the personal preferences of patients.

Multidisciplinary care improves patient outcomes and is especially important for the more complex cases of keratinocyte cancer or where there is a query about management. Cancer Australia's 'Principles of multidisciplinary care' provides a flexible definition, allowing services to vary implementation according to cancer type and the service location. The principles stipulate:

- a team approach that involves core disciplines that are integral to providing good care, including general practice, with input from other specialties as required
- communication among team members about treatment planning and plans for follow-up
- access to the full therapeutic range for all patients, regardless of geographical remoteness or size of institution
- care delivery in accordance with nationally agreed standards
- patient involvement in decisions about their care (Cancer Australia 2019a).

In addition to these principles, treatment teams should consider clinical trial participation for all eligible patients.

Multidisciplinary meetings, often called MDMs, should be based on the principles outlined above.

For more information on the principles of multidisciplinary care and the benefits of adopting a multidisciplinary approach, see Cancer Australia's 'Principles of multidisciplinary care' <www.canceraustralia.gov.au/clinical-best-practice/multidisciplinary-care/all-about-multidisciplinary-care/principles-multidisciplinary-care>.

Principle 4: Supportive care



Supportive care is a vital part of any cancer treatment program. Supportive care deals with issues that emerge for patients, families and carers from the effects of the cancer diagnosis and its treatment. It is made up of all the services, information and resources patients may need to meet their physical, psychological, social, information and spiritual needs from the time of diagnosis.

Supportive care may be 'patient-defined' and based on unmet needs. It is a core component of evidence-based clinical care and its benefits are well established. All cancer patients and their carers should be formally supported and have access to understandable, relevant information about the medical, practical and emotional aspects of the cancer and its treatment (Fitch 2008). The wishes and needs of the patient, their family and their carers should determine the level of support provided. Supportive care is a standard or routine aspect of cancer care and the treatment team should make patients aware of this.

Supportive care should begin from the time of diagnosis and continue throughout the cancer pathway.

For health professionals, supportive care involves:

- screening and assessing patients and families for their supportive care needs
- providing patients with access to a range of multidisciplinary support services, groups and therapies designed to assist them to live with cancer and its treatment and optimise recovery
- optimising referral pathways to community support organisations (cancer-related non-government, not-for-profit and charities) that provide services to cancer survivors – these address many of the care-navigation, psychosocial and information needs of cancer survivors and those affected by cancer (Australian Cancer Survivorship Centre 2019)
- being aware of and delivering culturally appropriate care.

All members of the multidisciplinary team have a role in providing supportive care along the care pathway, with special attention at transition points.

Supportive care involves routinely and systematically assessing patients to determine their needs. Health professionals can use a variety of validated screening tools for this task (see box on page 13). Clinical review and individual assessment are still required to ensure all patient concerns are identified.



More information

Visit the WeCan website <www.wecan.org.au> for information and resources on supportive care.

Validated screening tools

- National Comprehensive Cancer Network Distress Thermometer and Problem Checklist
- Supportive Care Needs Assessment Tool for Indigenous People (SCNAT-IP).

Key review points

The treatment team should assess patients for supportive care needs at these key stages:

- initial presentation or diagnosis (first three months)
- the beginning of treatment or a new phase of treatment
- change in prognosis
- if a patient is found to have a germline genetic mutation predisposing to cancer
- end of treatment
- throughout survivorship
- diagnosis of recurrence
- change in or development of new symptoms
- palliative care
- end-of-life care
- other time points based on clinical judgement.

The team also needs to decide whether the patient requires ongoing referral to supportive care services. Access to services can be through general practice-led chronic disease management plans, team care arrangements and mental health plans. Community support services also have a role to play.

See Appendices A, B and C for more information on supportive care and the specific needs of people that may arise.

Principle 5: Care coordination



Care coordination is the responsibility of every professional, both clinical and non-clinical, who works with patients, and with the patient's consent, their families and carers.

Seamless care coordination is essential for patients to successfully navigate the complex health system. Care coordination is a comprehensive approach to achieving continuity of care for patients. It aims to ensure care is delivered in a systematic, connected and timely way that promotes efficiency and reduces the risk of duplication and over-servicing to meet the medical and personal needs of patients.

Care coordination includes:

- proactive and timely communication with patients, their families and carers
- treatment plans, survivorship care plans and/or advance care directives
- coordinated appointments to ensure timely diagnosis, treatment and survivorship care
- appropriate tests and results being available to the treating team so treatment decisions can be made
- medical records being available to all members of the treating team and at scheduled appointments
- translation or interpreter services arranged if the patient/carer is from a non-English-speaking background or has difficulty communicating due to a physical disability
- practical support such as transport, accommodation, advance care planning and financial support
- referral and access to supportive care
- access to clinical trials
- access to telehealth for people in rural and remote areas and for managing vulnerable patients.

Care coordination brings together different health professionals, teams and health services. It also encompasses MDMs, multidisciplinary assessment clinics, supportive care screening and assessment, referral practices, data collection, common protocols, information for patients and individual clinical treatment.

Care coordination should cross the acute and primary care interface and should aim to achieve consistency of care through clear communication, linkages and collaborative integrated care planning.

Care coordination can be facilitated through electronic health record management such as My Health Record. My Health Record is a secure online database that helps with data collection and care coordination (My Health Record 2019).

Formal care coordination through appointed care coordinators plays an important role in managing and supporting patients through the health system. The availability of dedicated care coordinators varies across states and territories according to the complexity of care required and local service capacity and resourcing.

Principle 6: Communication



Everyone employed in the healthcare system is responsible for ensuring the communication needs of patients, their families and carers are met.

Good and open communication is a key principle of care for cancer patients. This includes communication between oncology and primary care health professionals and with patients. General practitioners should be involved in care from the point of diagnosis, and patients should be encouraged to maintain a relationship with their general practitioner through all stages of cancer care. Communication should be regular and timely.

Attendance of a family member or carer at clinical appointments is beneficial for many patients, as the family member or carer can provide informational and emotional support. General practitioners and clinicians should encourage and support the involvement of family members and carers by providing an inclusive and supportive consultation environment (Laidsaar-Powell et al. 2018a). Laidsaar-Powell et al. provide evidence-based guidance on how to support family member or carer involvement in consultations (Laidsaar-Powell et al. 2018a, 2018b).

Every person with cancer will have different communication needs, including cultural and language differences. When anyone involved in treatment communicates with patients, they should be truthful and transparent but aware of cultural and psychological sensitivities. In communicating with patients, healthcare providers should undertake to:

- empower patients to be active in treatment discussions
- use professionally trained interpreters if required – for example, when communicating with people from culturally diverse backgrounds whose primary spoken language is not English and for people with a hearing impairment (visit the Translating and Interpreting Services website <www.tisnational.gov.au> for more information on interpreter and language services)
- use culturally sensitive and appropriate forums of communication for people from culturally diverse backgrounds and Aboriginal and Torres Strait Islander people, as appropriate
- provide appropriate information for people from culturally diverse backgrounds
- provide information on community-based supportive care services and resources to patients and their families and carer
- identify the patient's substitute treatment decision-maker to ensure they are involved in relevant discussions
- ensure patients, their families or their carers have the opportunity to ask questions
- seek consent before conveying information between health professionals or healthcare teams or with family and carers
- be respectful if a patient seeks a second opinion from another health professional
- ensure patients do not have to convey information between areas of care (it is the provider's and healthcare system's responsibility to transfer information between areas of care)
- communicate in plain language (avoiding complex medical terms and jargon)
- ensure information is communicated at a level relevant to the patient's health literacy and that of their families and carers (ACSQHC 2020)
- use tools, diagrams and aids as appropriate (Gilligan et al. 2017)
- ensure the patient is aware of how to access electronic patient information, where appropriate

- allow enough time for communication, especially when conveying complex or sensitive information such as an initial diagnosis
- check the patient's and/or their family or carer's understanding by asking the patient and/or their family or carer to say in their own words what has been conveyed.

Healthcare providers should also consider offering patients a question prompt list before a consultation and recordings or written summaries of their consultations afterwards. Question prompt lists are effective in improving communication and the psychological and cognitive outcomes of cancer patients. Recordings or summaries of key consultations improve patients' recall of information and satisfaction (Hack et al. 2012). Written care plans, treatment summaries, survivorship care plans and advance care directives are effective records and communication tools.

Communication skills training programs that use role-play to develop skills and observe patient interactions to provide feedback, should be available to health professionals at every level of practice (Gilligan et al. 2017).

Communication skills training programs and resources can be found on the following websites:

- Australian Commission on Safety and Quality in Healthcare, Communicating for safety resource portal <<https://c4sportal.safetyandquality.gov.au>>
- state and territory Cancer Councils <www.cancer.org.au/about-us/state-and-territory-councils/> for the relevant council
- eviQ <<https://education.eviq.org.au>>
- VITAL talk <www.vitaltalk.org>.

Telehealth has become an increasingly acceptable alternative to face-to-face consultations.

When using telehealth, the team must consider what is best for the patient, including the patient's preferences of the patient. A face-to-face consultation should be the first option, if it is safe, when delivering critical diagnosis information, a change in therapy or prescribing intensive treatment. If this is not an option, a video consultation should be considered, and the patient should be encouraged to have a support person with them to assist (Cancer Australia 2020).

Principle 7: Research and clinical trials



Research and clinical trials play an important role in establishing the efficacy and safety of diagnostic, prognostic and therapeutic interventions, as well as establishing the role of psychological, supportive care and palliative care interventions (Sjoquist & Zalcberg 2013).

Clinical trials are the foundation for improved cancer outcomes, allowing new treatments to be tested and offering patients access to potentially more effective therapies than otherwise available to them.

Clinical trials are available for multiple types of cancer and may be a valuable option for people with rare, difficult-to-treat conditions for which there may be limited evidence about how the condition is best treated or managed (Australian Clinical Trials 2015).

Treating specialists and multidisciplinary teams should be aware of or search for clinical trials that may be suitable for their patients. Specialists should be willing to refer appropriate patients to other treating centres to participate in research or clinical trials at any stage of the care pathway and be willing to discuss the pros and cons of participating in such trials. Any member of the multidisciplinary team can encourage cross-referral between clinical trials centres. Possible ineligibility to participate in a clinical trial should be discussed with the patient. Acknowledge disappointment and offer support in this instance.

Health services should strive to implement policies and procedures that facilitate equitable access to clinical trials for all patients, including culturally diverse patients, regional patients and those from Aboriginal or Torres Strait Islander communities.

The use of telehealth technology, such as the Australasian Tele-trial Model, hopes to improve access to trials for patients being treated in rural and regional areas (COSA 2016).

Australian Cancer Trials is a national clinical trials database. It provides information on the latest clinical trials in cancer care, including trials that are recruiting new participants. Search for a trial <www.australiancancertrials.gov.au> via its website.

Education and training

Research and clinical trials provide an opportunity to educate health professionals who are in training. Cancer centres may be affiliated with teaching hospitals, universities or research groups to promote higher education or to develop the academic workforce, leading to more sustainable practice. Specialists should be encouraged to take up and retain active membership to professional societies and organisations that can assist with professional development opportunities.

Summary – optimal timeframes

Evidence-based guidelines, where they exist, should inform timeframes. Treatment teams need to recognise that shorter timeframes for appropriate consultations and treatment can promote a better experience for patients. Three steps in the pathway specify timeframes for care (Figure 3). They are designed to help patients understand the timeframes in which they can expect to be assessed and treated, and to help health services plan care delivery in accordance with expert-informed time parameters to meet the expectation of patients. These timeframes are based on expert advice from the Keratinocyte Cancer Working Group.

Figure 3: Timeframes for care

Step in pathway	Care point	Timeframe
Presentation, initial investigations and referral	Signs and symptoms	Presenting symptoms should be promptly and clinically triaged with a GP
	Initial investigations initiated by GP	Investigations and/or curative treatment should be performed within 4 weeks of initial presentation to a GP or as soon as practicable
	Referral to specialist	If diagnosis is required, referral to a specialist should be as soon as is practicable according to clinical concern (e.g. 4 weeks for a presumed SCC and 8 weeks for a presumed BCC)
Diagnosis, staging and treatment planning	Diagnosis and staging	Higher risk patients should be prioritised, where clinically indicated Biopsy should be considered prior to referral , where appropriate Most patients with keratinocyte cancer only require clinical staging
	Multidisciplinary meeting and treatment planning	Selected patients with advanced stage primary keratinocyte cancer, lymph node metastases and keratinocyte cancer in unusual sites are best managed by a multidisciplinary team in a specialist facility The MDM should be conducted before implementing treatment
Treatment	Surgery	Patients will be prioritised, depending on their particular tumour type and extent but will usually be having active treatment within a 3-month period
	Radiation therapy	Adjuvant radiation therapy should start as soon as possible once surgical wounds have healed, usually within 4–6 weeks of surgery
	Other therapies	Treatment should start as soon as diagnosis and staging has occurred and the treatment modality becomes available, ideally within 4 weeks of the MDM

Optimal care pathway

Seven steps of the optimal care pathway

- Step 1: Prevention and early detection
- Step 2: Presentation, initial investigations and referral
- Step 3: Diagnosis, staging and treatment planning
- Step 4: Treatment
- Step 5: Care after initial treatment and recovery
- Step 6: Managing recurrent, residual or metastatic disease
- Step 7: End-of-life care

This optimal care pathway covers keratinocyte cancer (cutaneous basal cell carcinoma [BCC] and squamous cell carcinoma [SCC]).

The incidence of treated BCC and SCC is more than five times the incidence of all other cancers combined in Australia. Cancer registries do not routinely report skin cancers apart from invasive melanoma, so exact incidence rates are not known.

The costs of screening and treating these usually non-fatal cancers cause a disproportionately high burden on the Australian health system and have a negative effect on the patient's quality of life through cosmetic ill-effects such as facial disfigurement. The estimated total treatment cost for non-melanoma skin cancers that was forecasted for 2015 (diagnosis, treatment and pathology) was \$703 million (Fransen et al. 2012).

Most patients with keratinocyte cancer will not proceed beyond step 2 because the vast majority of patients can be successfully treated in the primary care setting and will not require further management. For patients who require management beyond step 2, a multidisciplinary approach is indicated.

Step 1: Prevention and early detection

This step outlines recommendations for the prevention and early detection of keratinocyte cancer.

Evidence shows that not smoking, avoiding or limiting alcohol intake, eating a healthy diet, maintaining a healthy body weight, being physically active, being sun smart and avoiding exposure to oncoviruses or carcinogens may help reduce cancer risk (Cancer Council Australia 2018).

1.1 Prevention

Recommendations for preventing keratinocyte cancer:

Solar radiation is the major environmental cause of all skin cancers. The current policy for daily sunscreen use is: people living in Australia should apply sunscreen to the face/head/neck and all parts of the body not covered by clothing on all days when the ultraviolet (UV) index is forecast to reach 3 or higher, irrespective of their anticipated activities (Whiteman et al. 2019). Attention must be given to occupational and incidental sun exposure, in addition to recreational sun exposure.

Effective strategies for skin cancer prevention (to be used during sun protection times when the UV index is 3 or above) include:

- wearing long-sleeved clothing
- wearing a broad-brimmed hat
- applying a broad-spectrum sunscreen with a SPF of 30 or higher
- wearing sunglasses
- seeking shade
- avoiding getting sunburnt, especially to the point of blistering and skin peeling because multiple episodes have been shown to increase the risk of developing keratinocyte cancer
- protecting children from sunburn and long-term overexposure to the sun – this reduces their risk of developing skin cancer later in life
- not using solariums
- stopping smoking – epidemiological studies consistently report higher rates of SCC among current smokers but not former smokers; no consistent trends with duration or dosage of smoking were found (Dusingize et al. 2017).

People should be encouraged to use a combination of sun protection measures during sun protection times to avoid relying on one form of sun protection, and as an adjunct to minimising UV exposure. People should also be encouraged to download the free SunSmart app <<https://www.sunsmart.com.au/tools/interactive-tools/free-sunsmart-app>>.

'Nicotinamide may be a useful chemo-preventive adjunct to sun protection and sunscreen use in high risk, immune-competent individuals with a history of multiple keratinocyte cancers. It should not be recommended for lower-risk individuals without a history of skin cancer' (Cancer Council Australia Keratinocyte Cancers Guideline Working Party 2019).

1.2 Risk factors

The risk factors for developing keratinocyte cancer include the following.

Environmental and exogenous risk factors:

- chronic sun exposure
- multiple solar keratoses
- solarium use
- intensive UV exposure in childhood and adolescence – this is a stronger causative factor for developing BCC, whereas SCC is associated with chronic sun exposure over decades (Leiter & Garbe 2008); sun exposure in adulthood, however, is an important risk factor for both SCC and BCC (Iannacone et al. 2012).
- past exposure to arsenic.

Personal risk factors:

- some rare genetic conditions predisposing to skin cancer
- skin types I and II (these have a higher risk of sunburn)
- a history of blistering sunburn
- increasing age
- a previous diagnosis of melanoma or BCC/SCC (up to 60 per cent grow another within three years)
- solar keratoses.

Lifestyle risk factors:

- outdoor occupations
- recreational sun exposure.

Medical risk factors

- UVA and psoralen (PUVA) treatment for psoriasis
- immunosuppression (e.g. post transplantation, chronic lymphomas and leukaemias)
- previous radiotherapy
- some photosensitising medications (e.g. methotrexate and voriconazole).

1.3 Early detection

1.3.1 Screening recommendations

There is no evidence that population-based screening for keratinocyte cancer is effective in reducing morbidity or mortality, and it is not recommended.

The patient's first point of contact for detecting keratinocyte cancer early should be their general practitioner.

Management of all patients should include:

- education about skin awareness and encouragement of regular self-examination
- education about skin cancer prevention for the person at risk and their family
- education about average, increased and high-risk patient factors.

For most patients, screening is opportunistic, unless patients are in a high-risk category, whereby six to 12-monthly reviews with an adequately trained and experienced clinician is warranted. High-risk patients include those with:

- a history of keratinocyte cancer – up to 60 per cent of patients will develop another primary keratinocyte cancer within three years
- a previous melanoma
- immunosuppression (e.g. post-transplant)
- certain genetic syndromes (e.g. Gorlin's syndrome)
- past exposure to arsenic.

Total body skin examination of patients should be practised by a practitioner with adequate training and experience (Cancer Council Australia Keratinocyte Cancers Guideline Working Party 2019).

An agreed scope of practice in keratinocyte cancers (SCCs/BCCs) is required of practitioners undertaking screening or treatment of these cancers.

Skin cancer clinics are accessible without a Medicare Benefits Schedule (MBS) referral in Australia, and are generally staffed by general practitioners with a special interest in skin cancers. Documented evidence of the practitioner's further experience and training in skin cancers should be available.

Refer to The Red Book <<https://www.racgp.org.au/clinical-resources/clinical-guidelines/key-racgp-guidelines/view-all-racgp-guidelines/guidelines-for-preventive-activities-in-general-pr/early-detection-of-cancers>> for further primary care specific information.

Step 2: Presentation, initial investigations and referral

This step outlines the process for the general practitioner to initiate the right investigations and refer to the appropriate specialist in a timely manner. The types of investigations the general practitioner undertakes will depend on many factors, including access to diagnostic tests, the availability of medical specialists and patient preferences.

2.1 Signs and symptoms

The following signs and symptoms should be investigated by a general practitioner:

- any new or changing skin lesions or lesions that do not respond to treatment
- a rapidly growing skin lesion that remains unresolved after one month.

SCCs arise on the background of sun-damaged skin characterised by actinic keratoses.

The following symptom should be investigated for SCC:

- induration (thickening) or tenderness in the erythematous base of a scaling lesion.

The following signs and symptoms should be investigated for BCC:

- a dome-shaped skin lesion
- a pink or red scaly patch
- waxy or pearly hard skin-coloured lesion
- a sore that will not heal or with blood vessels.

The presence of multiple signs and symptoms, particularly in combination with other underlying risk factors, indicates an increased risk of keratinocyte cancer.

2.1.1 Timeframe for general practitioner consultation

Presenting symptoms should be promptly and clinically triaged with a general practitioner.

2.2 Assessments by the general practitioner

General practitioners provide the majority of care for patients with keratinocyte cancer, either in a general practice setting or at a skin clinic.

General practitioner examinations and investigations should include:

- history and clinical examination, including a whole-body skin check utilising dermoscopy (beyond just the primary lesion of concern)
- a diagnostic or curative biopsy of any lesions with suggestive/concerning clinical features, which can be conducted by a general practitioner with experience and confidence in surgical procedures for:
 - well-defined primary lesions of the trunk and extremities – large lesions can be difficult to excise, and the patient may need a referral depending on the circumstances
 - well-defined primary lesions of the face, forehead or scalp – large lesions, or where removing a lesion may compromise aesthetic outcome may need referral
- consideration of underlying patient factors, and applying an observational approach if the patient's quality of life is unlikely to be improved by definitive removal of an asymptomatic lesion.

For most lesions the best approach is complete excision. Uncomplicated small lesions are best removed by an elliptical excision with a 3–4 mm margin (Cancer Council Australia Keratinocyte Cancers Guideline Working Party 2019; Clarke 2012). If complete excision is not considered appropriate, small representative samples, such as by one or more punch biopsies, shave biopsy or curettage, can be useful.

Most BCCs that are clinically favourable (e.g. small, nodular or superficial types not located in the central face) can be satisfactorily excised under local anaesthetic with direct primary closure in an ambulatory care setting.

Biopsy-proven superficial BCCs that are not suitable for excision (e.g. cosmetically sensitive sites or lower legs with risk factors for poor healing) may be considered for non-surgical therapies such as topical imiquimod cream, photodynamic therapy or radiation therapy. Likewise, an SCC in situ or superficial BCC may be treated with topical 5-fluorouracil cream under similar situations. Patients receiving these treatments must be made aware of the need for follow-up of the treated site(s) to check for lesion recurrence.

Actinic keratoses that persist following cryotherapy, enlarge or become tender should be reassessed and biopsied if clinically indicated.

2.2.1 Timeframe for completing investigations

Investigations and/or curative treatment should be performed **within four weeks** of initial presentation to a general practitioner or as soon as practicable.

Lesions that are in more sensitive sites (e.g. head and neck), or have more aggressive features (see section 2.3 for a comprehensive list of high-risk/complicated cancers) will dictate promptness of review.

2.3 Initial referral

Most BCCs or SCCs do not require referral.

For a complicated BCC, consider referral to a dermatologist or surgeon if the following apply:

- incompletely excised lesions where surgical expertise is required for appropriate margins or lesions with a high risk of recurrence (particularly if the BCC is shown to be infiltrative or morpheic)
- lesions involving the central face, ears, genitalia, digits, palm of hand or lower leg
- poorly defined lesions
- lesions fixed to underlying structures
- lesions involving or lying adjacent to significant nerves – for example, a facial or accessory nerve
- large lesions (especially on the head and extremities) (Cancer Council Australia Keratinocyte Cancers Guideline Working Party 2019)
- neurotropic spread
- lymphovascular invasion.

For a complicated SCC, consider referral for the following:

- SCC of the central face, scalp, lip, ear or genitals
- lesions greater than 20 mm in diameter or deeper than 6 mm
- chronically immunosuppressed patients with multiple aggressive SCCs
- head and neck SCCs that are histologically aggressive on biopsy (e.g. moderately and poorly differentiated, neurotropic or vascular invasion)
- locally recurrent and persistent SCC and/or inadequately treated SCC (Cancer Council Australia Keratinocyte Cancers Guideline Working Party 2019).

Patients should be enabled to make informed decisions about their choice of practitioner or specialist and health service. General practitioners should make referrals in consultation with the patient after considering the clinical care needed, cost implications (see referral options and informed financial consent on page 9), waiting periods, location and facilities, including discussing the patient's preference for health care through the public or the private system.

Referral for suspected or diagnosed keratinocyte cancer should include the following essential information to accurately triage and categorise the level of clinical urgency:

- important psychosocial history and relevant medical history
- family history, current symptoms, medications and allergies
- results of current clinical investigations (imaging, photographic landmarks/digital photography and pathology reports)
- results of all prior relevant investigations
- notification if an interpreter service is required.

Many services will reject incomplete referrals, so it is important that referrals comply with all relevant health service criteria.

If access is via online referral, a lack of a hard copy should not delay referral.

The specialist should provide timely communication to the general practitioner about the consultation and should notify the general practitioner if the patient does not attend appointments.

Aboriginal and Torres Strait Islander patients will need a culturally appropriate referral. To view the optimal care pathway for Aboriginal and Torres Strait Islander people and the corresponding quick reference guide, visit the Cancer Australia website <<https://www.canceraustralia.gov.au/affected-cancer/atsi/resources-health>>. Download the consumer resources – *Checking for cancer* and *Cancer* from the Cancer Australia website <<https://www.canceraustralia.gov.au/affected-cancer/atsi/resources-people>>.

2.3.1 Timeframe for referring to a specialist

If a diagnosis is required referral to specialist should be **as soon as is practicable** according to clinical concern (e.g. four weeks for a presumed SCC and eight weeks for a presumed BCC).

If the patient is not seen within an appropriate timeframe, the referring practitioner needs to follow this up with the specialist.

2.4 Support and communication

2.4.1 Supportive care

The patient's general practitioner should consider an individualised supportive care assessment where appropriate to identify the needs of an individual, their carer and family. Refer to appropriate support services as required. See validated screening tools mentioned in Principle 4 'Supportive care'.

A number of specific needs may arise for patients at this time:

- assistance for dealing with the emotional distress and/or anger of dealing with a potential cancer diagnosis, anxiety/depression, interpersonal problems and adjustment difficulties
- encouragement and support to increase levels of exercise (Cormie et al. 2018; Hayes et al. 2019).

For more information refer to the National Institute for Health and Care Excellence 2015 guidelines, *Suspected cancer: recognition and referral* <www.nice.org.uk/guidance/ng12/chapter/Recommendations-on-patient-support-safety-netting-and-the-diagnostic-process>.

For additional information on supportive care and needs that may arise for different population groups, see Appendices A, B and C.

2.4.2 Communication with patients, carers and families

The general practitioner is responsible for:

- providing patients with information that clearly describes to whom they are being referred, the reason for referral and the expected timeframes for appointments
- requesting that patients notify them if the specialist has not been in contact within the expected timeframe
- considering referral options for patients living rurally or remotely
- supporting the patient while waiting for the specialist appointment (Cancer Council nurses are available to act as a point of information and reassurance during the anxious period of awaiting further diagnostic information; patients can contact 13 11 20 nationally to speak to a cancer nurse).



More information

Refer to Principle 6 'Communication' for communication skills training programs and resources.

Step 3: Diagnosis, staging and treatment planning

Step 3 outlines the process for confirming the diagnosis and stage of cancer and for planning subsequent treatment. The guiding principle is that interaction between appropriate multidisciplinary team members should determine the treatment plan.

3.1 Specialist diagnostic work-up

All patients should have or have had a complete skin check recently.

Unlike other cancers, most tests to confirm keratinocyte cancer diagnosis occur in the primary care setting before specialist referral.

Specialist management may include:

- complete excision (in cases where a partial biopsy was performed pre-referral)
- re-excision with recommended margins
- imaging including medical photography (in some circumstances)
- radiation therapy
- reconstructive surgery.

3.1.1 Timeframe for completing investigations

Higher risk patients should be prioritised where clinically indicated. Biopsy should be considered **before referral**, where appropriate. Most patients with keratinocyte cancer only require clinical staging (see section 3.2).

3.1.2 Genetic testing (family risk)

In some cases certain pathological subtypes of cancer or tumour tests (immunohistochemistry or tumour genetic tests) may suggest an underlying inherited cancer predisposition.

Medical genetic testing is not routinely required for keratinocyte cancer. Only a minority of patients will require genetic testing.

Anyone diagnosed with multiple skin cancers should have a detailed personal and family cancer history taken. Consult relevant guidelines <www.eviq.org.au/cancer-genetics/adult> to determine if referral to a familial cancer service is appropriate.

While most keratinocyte cancers develop through sun exposure, several genes and hereditary syndromes increase the risk of keratinocyte cancer development (NCI 2020).

Genetic factors associated with an increased risk of developing BCC include:

- Gorlin's syndrome, which affects the PTCH1 and PTCH2 genes.

Hereditary syndromes associated with an increased risk of developing SCC include:

- xeroderma pigmentosum
- oculocutaneous albinism
- epidermolysis bullosa
- Fanconi anaemia
- Bloom syndrome
- Chédiak-Higashi syndrome
- epidermodysplasia verruciformis
- Griscelli syndrome
- Hermansky-Pudlak syndrome
- Ferguson-Smith syndrome
- Rothmund-Thomson syndrome
- Werner syndrome.

A familial cancer service assessment can determine if genetic testing is appropriate. Genetic testing is likely to be offered when there is at least a 10 per cent chance of finding a causative 'gene error' (pathogenic gene variant; previously called a mutation). Usually testing begins with a variant search in a person who has had cancer (a diagnostic genetic test). If a pathogenic gene variant is identified, variant-specific testing is available to relatives to see if they have or have not inherited the familial gene variant (predictive genetic testing).

Medicare funds some genetic tests via a Medicare Benefits Schedule (MBS) item number but most are not. Depending on the personal and family history, the relevant state health system may fund public sector genetic testing.

Pre-test counselling and informed consent is required before any genetic testing. In some states the treating team can offer 'mainstream' diagnostic genetic testing, after which referral is made to a familial cancer service if a pathogenic gene variant is identified. The familial cancer service can provide risk management advice, facilitate family risk notification and arrange predictive genetic testing for the family.

Visit the Centre for Genetics Education website <www.genetics.edu.au/individuals-and-families/cancer-in-the-family> for basic information about cancer in a family.

3.1.3 Pharmacogenetics

Pharmacogenetics describes how individual genetic differences can lead to differences in the way certain medicines interact with the body. These interactions can affect the effectiveness of medications and any side effects. Applying pharmacogenetics to treatment planning may help patients to be prescribed the most appropriate treatment at the optimal dose from the beginning of treatment (NHMRC 2013).

3.2 Staging

Keratinocyte cancer can usually be diagnosed with a biopsy and most will not require further investigations. All patients should be clinically staged.

Staging should be clearly documented in the patient's medical record.

In cases of SCC, the lymph nodes should be examined to see if the cancer has spread. Clinically suspected lymph node metastases should be confirmed by fine needle aspiration cytology if possible (under radiological or ultrasound guidance if required). Open surgical biopsy should be avoided (Cancer Council Australia Keratinocyte Cancers Guideline Working Party 2019).

Although cutaneous SCC is the usually suspected primary cancer for regional lymph node metastases, this is not always the case, especially for lymph nodes in the head and neck region, which is the most common site of regional metastases. Patients may have had several SCCs of the head and neck but may also be at increased risk for upper aerodigestive tract mucosal primary SCCs as the source of the SCC nodal metastasis. A thorough examination of the upper aerodigestive tract by an experienced clinician is necessary if there is any doubt as to the site of the primary tumour.

Sentinel lymph node biopsy (SLNB) may be offered to selected high-risk patients as prognostic information and to assess the presence of lymph node metastasis (Fahradyan et al. 2017; Matthey-Giè et al. 2013). If metastatic SCC is detected, a complete regional lymphadenectomy may be performed in a second procedure after SLNB.

All staging should be undertaken using the American Joint Committee on Cancer TNM guidelines <<https://cancerstaging.org/references-tools/Pages/What-is-Cancer-Staging.aspx>>.



More information

Visit the Cancer Institute New South Wales website for information about understanding the stages of cancer <www.cancer.nsw.gov.au/understanding-cancer/stages-of-cancer>.

3.3 Performance status

Patient performance status is a central factor in cancer care and should be clearly documented in the patient's medical record.

Performance status should be measured and recorded using an established scale such as the Karnofsky scale or the Eastern Cooperative Oncology Group (ECOG) scale.

3.4 Treatment planning

3.4.1 Key considerations beyond treatment recommendations

A number of factors should be considered at this stage:

- the patient's overall condition, life expectancy, personal preferences and decision-making capacity
- discussing the multidisciplinary team approach to care with the patient
- appropriate and timely referral to an MDM
- pregnancy and fertility
- support with travel and accommodation
- teleconferencing or videoconferencing as required.

3.4.2 Timing for multidisciplinary team planning

Selected patients with advanced stage primary keratinocyte cancer, lymph node metastases and keratinocyte cancer in unusual sites are best managed by a multidisciplinary team in a specialist facility. The multidisciplinary team should meet to discuss newly diagnosed patients **before definitive treatment** so that a treatment plan can be recommended and there can be early preparation for the post-treatment phase. The level of discussion may vary, depending on the patient's clinical and supportive care factors. Some patients with non-complex cancers may not be discussed by a multidisciplinary team; instead the team may have treatment plan protocols that will be applied if the patient's case (cancer) meets the criteria. If patients are not discussed at an MDM, they should at least be named on the agenda for noting. The proposed treatment must be recorded in the patient's medical record and should be recorded in an MDM database where one exists.

Teams may agree on standard treatment protocols for non-complex care, facilitating patient review (by exception) and associated data capture.

Results of all relevant tests and access to images should be available for the MDM. Information about the patient's concerns, preferences and social and cultural circumstances should also be available.

3.4.3 Responsibilities of the multidisciplinary team

The multidisciplinary team requires administrative support in developing the agenda for the meeting, for collating patient information and to ensure appropriate expertise around the table to create an effective treatment plan for the patient. The MDM has a chair and multiple lead clinicians. Each patient case will be presented by a lead clinician (usually someone who has seen the patient before the MDM). In public hospital settings, the registrar or clinical fellow may take this role. A member of the team records the outcomes of the discussion and treatment plan in the patient history and ensures these details are communicated to the patient's general practitioner. The team should consider the patient's values, beliefs and cultural needs as appropriate to ensure the treatment plan is in line with these.

3.4.4 Members of the multidisciplinary team for keratinocyte cancer

The multidisciplinary team should be composed of the core disciplines that are integral to providing good care. Team membership should reflect both clinical and supportive care aspects of care. Pathology and radiology expertise are essential.

See Appendix E for a list of team members who may be included in the multidisciplinary team for keratinocyte cancer.

Core members of the multidisciplinary team are expected to attend most MDMs either in person or remotely via virtual mechanisms. Additional expertise or specialist services may be required for some patients. An Aboriginal and Torres Strait Islander cultural expert should be considered for all patients who identify as Aboriginal or Torres Strait Islander.

3.4.5 Responsibilities of individual team members

The general practitioner who made the referral is responsible for the patient until care is passed to another practitioner who is directly involved in planning the patient's care.

The general practitioner may play a number of roles in all stages of the cancer pathway including diagnosis, referral, treatment, shared follow-up care, post-treatment surveillance, coordination and continuity of care, as well as managing existing health issues and providing information and support to the patient, their family and carer.

A nominated contact person from the multidisciplinary team may be assigned responsibility for coordinating care in this phase. Care coordinators are responsible for ensuring there is continuity throughout the care process and coordination of all necessary care for a particular phase (COSA 2015). The care coordinator may change over the course of the pathway.

The lead clinician is responsible for overseeing the activity of the team and for implementing treatment within the multidisciplinary setting.

3.5 Research and clinical trials

Patients should be encouraged to participate in research or clinical trials where available and appropriate.

For more information visit the Cancer Australia website <www.australiancancertrials.gov.au>.

3.6 Support and communication

3.6.1 Prehabilitation

Cancer prehabilitation uses a multidisciplinary approach combining exercise, nutrition and psychological strategies to prepare patients for the challenges of cancer treatment such as surgery, systemic therapy and radiation therapy. Team members may include anaesthetists, oncologists, surgeons, haematologists, clinical psychologists, exercise physiologists, physiotherapists and dietitians, among others.

Patient performance status is a central factor in cancer care and should be frequently assessed. All patients should be screened for malnutrition using a validated tool, such as the Malnutrition Screening Tool (MST). The lead clinician may refer obese or malnourished patients to a dietitian preoperatively or before other treatments begin.

Patients who currently smoke should be encouraged to stop smoking before receiving treatment. This should include an offer of referral to Quitline in addition to smoking cessation pharmacotherapy if clinically appropriate.

Evidence indicates that patients who respond well to prehabilitation may have fewer complications after treatment. For example, those who were exercising before diagnosis and patients who use prehabilitation before starting treatment may improve their physical or psychological outcomes, or both, and this helps patients to function at a higher level throughout their cancer treatment (Cormie et al. 2017; Silver 2015).

For patients with keratinocyte cancer, the multidisciplinary team should consider these specific prehabilitation assessments and interventions for treatment-related complications or major side effects:

- conducting a physical and psychological assessment to establish a baseline function level
- identifying impairments and providing targeted interventions to improve the patient's function level (Silver & Baima 2013)

- reviewing the patient's medication to ensure optimisation and to improve adherence to medicine used for comorbid conditions.

Following completion of primary cancer treatment, rehabilitation programs have considerable potential to enhance physical function.

3.6.2 Fertility preservation and contraception

Cancer and cancer treatment may cause fertility problems. This will depend on the age of the patient, the type of cancer and the treatment received. Infertility can range from difficulty having a child to the inability to have a child. Infertility after treatment may be temporary, lasting months to years, or permanent (AYA Cancer Fertility Preservation Guidance Working Group 2014).

Patients need to be advised about and potentially referred for discussion about fertility preservation before starting treatment and need advice about contraception before, during and after treatment. Patients and their family should be aware of the ongoing costs involved in optimising fertility. Fertility management may apply in both men and women. Fertility preservation options are different for men and women and the need for ongoing contraception applies to both men and women.

The potential for impaired fertility should be discussed and reinforced at different time points as appropriate throughout the diagnosis, treatment, surveillance and survivorship phases of care. These ongoing discussions will enable the patient and, if applicable, the family to make informed decisions. All discussions should be documented in the patient's medical record.



More information

See the Cancer Council website <www.cancerciv.org.au/living-with-cancer/common-side-effects/fertility/fertility-overview.html> for more information.

3.6.3 Supportive care

See validated screening tools mentioned in Principle 4 'Supportive care'.

A number of specific challenges and needs may arise for patients at this time:

- assistance for dealing with psychological and emotional distress while adjusting to the diagnosis; treatment phobias; existential concerns; stress; difficulties making treatment decisions; anxiety or depression or both; psychosexual issues such as potential loss of fertility and premature menopause; history of sexual abuse; and interpersonal problems
- management of physical symptoms such as pain and fatigue (Australian Adult Cancer Pain Management Guideline Working Party 2019)
- malnutrition or undernutrition, identified using a validated nutrition screening tool such as the MST (note that many patients with a high BMI [obese patients] may also be malnourished [WHO 2018])
- support for families or carers who are distressed with the patient's cancer diagnosis
- support for families/relatives who may be distressed after learning of a genetically linked cancer diagnosis
- specific spiritual needs that may benefit from the involvement of pastoral/spiritual care.

Additionally, palliative care may be required at this stage.

For more information on supportive care and needs that may arise for different population groups, see Appendices A, B and C.

3.6.4 Communication with patients, carers and families

In discussion with the patient, the lead clinician should undertake the following:

- establish if the patient has a regular or preferred general practitioner and if the patient does not have one, then encourage them to find one
- provide written information appropriate to the health literacy of the patient about the diagnosis and treatment to the patient and carer and refer the patient to the *Guide to best cancer care* (consumer optimal care pathway) for keratinocyte cancer, as well as to relevant websites and support groups as appropriate
- provide a treatment care plan including contact details for the treating team and information on when to call the hospital
- discuss a timeframe for diagnosis and treatment with the patient and carer
- discuss the benefits of multidisciplinary care and gain the patient's consent before presenting their case at an MDM
- provide brief advice and refer to Quitline (13 7848) for behavioural intervention if the patient currently smokes (or has recently quit), and prescribe smoking cessation pharmacotherapy, if clinically appropriate
- recommend an 'integrated approach' throughout treatment regarding nutrition, exercise and minimal or no alcohol consumption among other considerations
- communicate the benefits of continued engagement with primary care during treatment for managing comorbid disease, health promotion, care coordination and holistic care
- where appropriate, review fertility needs with the patient and refer for specialist fertility management (including fertility preservation, contraception, management during pregnancy and of future pregnancies)
- be open to and encourage discussion about the diagnosis, prognosis (if the patient wishes to know) and survivorship and palliative care while clarifying the patient's preferences and needs, personal and cultural beliefs and expectations, and their ability to comprehend the communication
- encourage the patient to participate in advance care planning including considering appointing one or more substitute decision-makers and completing an advance care directive to clearly document their treatment preferences. Each state and territory has different terminology and legislation surrounding advance care directives and substitute decision-makers.

3.6.5 Communication with the general practitioner

The lead clinician has these communication responsibilities:

- involving the general practitioner from the point of diagnosis
- ensuring regular and timely communication with the general practitioner about the diagnosis, treatment plan and recommendations from MDMs and inviting them to participate in MDMs (consider using virtual mechanisms)
- supporting the role of general practice both during and after treatment
- discussing shared or team care arrangements with general practitioners or regional cancer specialists, or both, together with the patient.



More information

Refer to Principle 6 'Communication' for communication skills training programs and resources.

Step 4: Treatment

Step 4 describes the optimal treatments for keratinocyte cancer, the training and experience required of the treating clinicians and the health service characteristics required for optimal cancer care.

All health services must have clinical governance systems that meet the following integral requirements:

- identifying safety and quality measures
- monitoring and reporting on performance and outcomes
- identifying areas for improvement in safety and quality (ACSQHC 2020).

Step 4 outlines the treatment options for keratinocyte cancer. For detailed clinical information on treatment options refer to this resource:

- Cancer Council Australia 2019, *Clinical practice guidelines for keratinocyte cancer* <https://wiki.cancer.org.au/australia/Guidelines:Keratinocyte_carcinoma?_ga=2.248933255.1880358399.1580266795-977279926.1563328782>.

4.1 Treatment intent

The intent of treatment can be defined as one of the following:

- curative (most keratinocyte cancer patients will be cured with simple excision or radiotherapy)
- palliative.

The treatment intent should be documented in the patient's medical record, particularly when there is a deviation from standard care.

The potential benefits need to be balanced against the morbidity and risks of treatment.

The lead clinician should discuss the advantages and disadvantages of each treatment and associated potential side effects with the patient and their carer or family before treatment consent is obtained and begins so the patient can make an informed decision. Supportive care services should also be considered during this decision-making process. Patients should be asked about their use of (current or intended) complementary therapies (see Appendix D).

Timeframes for starting treatment should be informed by evidence-based guidelines where they exist. The treatment team should recognise that shorter timeframes for appropriate consultations and treatment can promote a better experience for patients.

Initiate advance care planning discussions with patients before treatment begins (this could include appointing a substitute decision-maker and completing an advance care directive). Formally involving a palliative care team/service may benefit any patient, so it is important to know and respect each person's preference (AHMAC 2011).

4.2 Management options

4.2.1 Surgery

The definitive treatment of primary keratinocyte cancer involves complete excision of the skin and subcutaneous tissue – usually fat. Margin-control surgery may be offered to some patients for removing keratinocyte cancers with a high risk of recurrence or metastasis, or to maximise skin preservation (e.g. around the lips, nose or eyes). Curettage and diathermy may be an option for some keratinocyte cancers. Referral to a specialist plastic surgeon may be required.

Most clinically favourable BCCs can be excised with a margin of 2–3 mm, with a very high chance of achieving complete excision and long-term control. While a margin of 0.5 mm may be adequate for a well-defined (nodular) BCC, an aggressive form of BCC would require a wider margin of 3–5 mm.

The recommended surgical margin of excision for SCC varies from 2 mm to 10 mm. For SCCs with poor prognostic features, even wider margins may be necessary (Cancer Council Australia Keratinocyte Cancers Guideline Working Party 2019). If there is any concern about margins, consider a discussion with a pathologist and referring for adjuvant radiotherapy if re-excision is not possible.

Timeframe for starting treatment

Patients will be prioritised depending on their particular tumour type and extent but will usually be having active treatment **within a three-month period**.

Training and experience required of the surgeon

Surgeons must have training and experience of this standard:

- Fellow of the Royal Australian College of Surgeons or Fellow of the Australasian College of Dermatologists (or equivalent) with adequate training and experience that enables institutional credentialing and agreed scope of practice in keratinocyte cancer
- adequate training and experience that enables institutional credentialing and agreed scope of practice within this area (ACSQHC 2015).

Documented evidence of the surgeon's training and experience, including their specific (subspecialty) experience with keratinocyte cancer and procedures to be undertaken, should be available.

Health service characteristics

To provide safe and quality care for patients having surgery, health services should have adequate equipment and staff availability appropriate to the complexity of surgery being performed. Critical care support may be required.

4.2.2 Radiation therapy

Definitive radiation therapy should be recommended for primary keratinocyte cancer in patients who have declined or have contraindications for conventional surgery, and for cases of persistent, recurrent or advanced keratinocyte cancer where adjuvant radiation can complement surgery to improve control rates (Cancer Council Australia Keratinocyte Cancers Guideline Working Party 2019). Radiation therapy is also an important local modality in the palliative setting. Radiation therapy may also be the primary treatment for appropriate histologically proven tumours, usually where other treatment modalities are less appropriate.

For lesions that will be treated by radiotherapy alone, a confirmatory biopsy is advisable.

Clinical scenarios where patients with keratinocyte cancer may benefit from radiation therapy include the following.

Definitive radiation therapy:

- patients unsuitable for surgery
- where surgery creates significant functional and/or aesthetic morbidity that is unacceptable to the patient (e.g. near the lip, eyes or nose).

Adjuvant radiation therapy:

- patients with incompletely excised keratinocyte cancer where re-excision would result in significant morbidity; adjuvant radiation therapy provides comparable control rates to re-excision and may be a good alternative in these scenarios (Cancer Council Australia Keratinocyte Cancers Guideline Working Party 2019)
- patients with locally advanced or node-positive disease
- patients with neurotropic or recurrent lesions.

Symptom palliation:

- bleeding, fungating, rapidly growing or painful skin lesions.

If the excision specimen shows evidence of perineural invasion (PNI) in more than one nerve, in nerves larger than 0.1 mm or evidence of PNI extending away from the main tumour mass, the patient should be referred for an opinion about postoperative radiotherapy because these patients are at higher risk of local recurrence.

Timeframe for starting treatment

Adjuvant radiation therapy should start as soon as possible once the surgical wounds have healed, usually **within four to six weeks** of surgery.

Training and experience required of the appropriate specialists

The appropriate specialist should be a radiation oncologist (FRANZCR) with adequate training and experience, institutional credentialing and agreed scope of practice in keratinocyte cancer.

The training and experience of the radiation oncologist should be documented.

Health service unit characteristics

To provide safe and quality care for patients having radiation therapy, health services should have these features:

- linear accelerator (LINAC) capable of image-guided radiation therapy (IGRT)
- dedicated CT planning
- access to MRI and PET imaging
- automatic record-verify of all radiation treatments delivered
- a treatment planning system
- trained medical physicists, radiation therapists and nurses with radiation therapy experience
- coordination for combined therapy with systemic therapy, especially where facilities are not co-located
- participation in Australian Clinical Dosimetry Service audits
- an incident management system linked with a quality management system.

4.2.3 Other therapies

The following treatments may be used for SCC in situ (Bowen's disease or intraepithelial squamous cell carcinoma) and early-stage keratinocyte cancer when surgery is not suitable. The following treatments should be compared with surgery when discussing the likelihood of cure with the patient:

- curettage (with collection of a sample for histopathology) and electrocautery for well-defined, superficial or small nodular primary BCCs, SCC in situ and for selected low-risk SCCs where excision is not feasible
- cryotherapy for SCC in situ and early-stage superficial BCCs
- 5-fluorouracil cream for multiple solar keratoses and SCC in situ
- imiquimod cream for biopsy-proven superficial BCCs, multiple solar keratoses and SCC in situ
- photodynamic therapy for multiple solar keratoses, SCC in situ and selected cases of superficial BCC
- oral acitretin as an antiproliferative agent as chemoprophylaxis for post-solid organ patients with multiple previous SCCs.

Timeframes for starting treatment

Treatment should start as soon as diagnosis and staging has occurred, and the treatment modality becomes available, ideally **within four weeks** of the MDM.

4.2.4 Targeted therapies and immunotherapy

For patients with locally advanced or a metastatic BCC, hedgehog pathway inhibitors (vismodegib and sonidegib) are currently available targeted treatment options.

Training and experience required of the appropriate specialists

Medical oncologists must have training and experience of this standard:

- Fellow of the Royal Australian College of Physicians (or equivalent)
- adequate training and experience that enables institutional credentialing and agreed scope of practice within this area (ACSQHC 2015).

Cancer nurses should have accredited training in these areas:

- anti-cancer treatment administration
- specialised nursing care for patients undergoing cancer treatments, including side effects and symptom management
- the handling and disposal of cytotoxic waste (ACSQHC 2020).

Systemic therapy should be prepared by a pharmacist whose background includes this experience:

- adequate training in systemic therapy medication, including dosing calculations according to protocols, formulations and/or preparation.

In a setting where no medical oncologist is locally available (e.g. regional or remote areas), some components of less complex therapies may be delivered by a general practitioner or nurse with training and experience that enables credentialing and agreed scope of practice within this area. This should be in accordance with a detailed treatment plan or agreed protocol, and with communication as agreed with the medical oncologist or as clinically required.

The training and experience of the appropriate specialist should be documented.

Health service characteristics

To provide safe and quality care for patients having systemic therapy, health services should have these features:

- a clearly defined path to emergency care and advice after hours
- access to diagnostic pathology including basic haematology and biochemistry, and imaging
- cytotoxic drugs prepared in a pharmacy with appropriate facilities
- occupational health and safety guidelines regarding handling of cytotoxic drugs, including preparation, waste procedures and spill kits (eviQ 2019)
- guidelines and protocols to deliver treatment safely (including dealing with extravasation of drugs)
- coordination for combined therapy with radiation therapy, especially where facilities are not co-located
- appropriate molecular pathology access.

4.2.5 Emerging therapies

Immune checkpoint inhibitors (PD-1 inhibitors) and targeted EGFR inhibitors have shown promise in treating locally advanced and metastatic SCC (Australian Cancer Society 2019; Chen et al. 2019). This is best done through a multidisciplinary team.

The key principle for precision medicine is prompt and clinically oriented communication and coordination with an accredited laboratory and pathologist. Tissue analysis is integral for access to emerging therapies and, as such, tissue specimens should be treated carefully to enable additional histopathological or molecular diagnostic tests in certain scenarios.

4.3 Palliative care

Early referral to palliative care can improve the quality of life for people with cancer and in some cases may be associated with survival benefits (Haines 2011; Temel et al. 2010; Zimmermann et al. 2014). This is particularly true for cancers with poor prognosis.

The lead clinician should ensure patients receive timely and appropriate referral to palliative care services. Referral should be based on need rather than prognosis. Emphasise the value of palliative care in improving symptom management and quality of life to patients and their carers.

The 'Dying to Talk' resource may help health professionals when initiating discussions with patients about future care needs (see 'More information'). Ensure that carers and families receive information, support and guidance about their role in palliative care (Palliative Care Australia 2018).

Patients, with support from their family or carer and treating team, should be encouraged to consider appointing a substitute decision-maker and to complete an advance care directive.

Refer to step 6 for a more detailed description of managing patients with recurrent, residual or metastatic disease.



More information

These online resources are useful:

- Advance Care Planning Australia <www.advancecareplanning.org.au>
- Care Search <www.caresearch.com.au/Caresearch/>
- Dying to Talk <www.dyingtotalk.org.au>
- the Palliative Care resource kit <www.health.gov.au/health-topics/palliative-care>
- Palliative Care Australia (for patients and carers) <www.palliativecare.org.au>.

4.4 Research and clinical trials

The team should support the patient to participate in research or clinical trials where available and appropriate. Many emerging treatments are only available on clinical trials that may require referral to certain trial centres.

For more information visit the Cancer Australia website <www.australiancancertrials.gov.au>.

4.5 Support and communication

4.5.1 Supportive care

See validated screening tools mentioned in Principle 4 'Supportive care'.

A number of specific challenges and needs may arise for patients at this time:

- assistance for dealing with emotional and psychological issues, including body image concerns, fatigue, quitting smoking, traumatic experiences, existential anxiety, treatment phobias, anxiety/depression, interpersonal problems and sexuality concerns
- potential isolation from normal support networks, particularly for rural patients who are staying away from home for treatment
- management of physical symptoms such as pain and paraesthesia
- disfigurement and scarring from appearance-altering treatment (and possible need for a prosthetic), which may require referral to a specialist plastic surgeon, psychologist, psychiatrist or social worker
- possible wound complications following surgery require appropriate care by the practitioner who performed the surgery and/or the patient's general practitioner, or a plastic and reconstructive surgeon
- lymphoedema, which may require referral to a trained lymphoedema practitioner
- decline in mobility or functional status as a result of treatment
- assistance with beginning or resuming regular exercise with referral to an exercise physiologist or physiotherapist (COSA 2018; Hayes et al. 2019).

Early involvement of general practitioners may lead to improved cancer survivorship care following acute treatment. General practitioners can address many supportive care needs through good communication and clear guidance from the specialist team (Emery 2014).

Patients, carers and families may have these additional issues and needs:

- 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 on the basis of terminal illness or permanent disability.

Cancer Council's 13 11 20 information and support line can assist with information and referral to local support services.

For more information on supportive care and needs that may arise for different population groups, see Appendices A, B and C.

4.5.2 Rehabilitation

Rehabilitation may be required at any point of the care pathway. If it is required before treatment, it is referred to as prehabilitation (see section 3.6.1).

All members of the multidisciplinary team have an important role in promoting rehabilitation. Team members may include occupational therapists, speech pathologists, dietitians, social workers, psychologists, physiotherapists, exercise physiologists and rehabilitation specialists.

To maximise the safety and therapeutic effect of exercise for people with cancer, all team members should recommend that people with cancer work towards achieving, and then maintaining, recommended levels of exercise and physical activity as per relevant guidelines. Exercise should be prescribed and delivered under the direction of an accredited exercise physiologist or physiotherapist with experience in cancer care (Vardy et al. 2019). The focus of intervention from these health professionals is tailoring evidence-based exercise recommendations to the individual patient's needs and abilities, with a focus on the patient transitioning to ongoing self-managed exercise.

Other issues that may need to be dealt with include managing cancer-related fatigue, improving physical endurance, achieving independence in daily tasks, optimising nutritional intake, returning to work and ongoing adjustment to cancer and its sequels. Referrals to dietitians, psychosocial support, return-to-work programs and community support organisations can help in managing these issues.

4.5.3 Communication with patients, carers and families

The lead or nominated clinician should take responsibility for these tasks:

- discussing treatment options with patients and carers, including the treatment intent and expected outcomes, and providing a written version of the plan and any referrals
- providing patients and carers with information about the possible side effects of treatment, managing symptoms between active treatments, how to access care, self-management strategies and emergency contacts
- encouraging patients to use question prompt lists and audio recordings, and to have a support person present to aid informed decision making
- initiating a discussion about advance care planning and involving carers or family if the patient wishes.

4.5.4 Communication with the general practitioner

The general practitioner plays an important role in coordinating care for patients, including helping to manage side effects and other comorbidities, and offering support when patients have questions or worries. For most patients, simultaneous care provided by their general practitioner is very important.

The lead clinician is often the general practitioner for keratinocyte cancer. If this is not the case, the lead clinician, in discussion with the patient's general practitioner, should consider these points:

- the general practitioner's role in symptom management, supportive care and referral to local services
- using a chronic disease management plan and mental health care management plan
- how to ensure regular and timely two-way communication about:
 - the treatment plan, including intent and potential side effects
 - supportive and palliative care requirements
 - the patient's prognosis and their understanding of this
 - enrolment in research or clinical trials
 - changes in treatment or medications
 - the presence of an advance care directive or appointment of a substitute decision-maker
 - recommendations from the multidisciplinary team.



More information

Refer to Principle 6 'Communication' for communication skills training programs and resources.

Step 5: Care after initial treatment and recovery

The term 'cancer survivor' describes a person living with cancer, from the point of diagnosis until the end of life. Survivorship care in Australia has traditionally been provided to patients who have completed active treatment and are in the post-treatment phase. But there is now a shift to provide survivorship care and services from the point of diagnosis to improve cancer-related outcomes.

Cancer survivors may experience inferior quality of life and cancer-related symptoms for up to five years after their diagnosis (Jefford et al. 2017). Distress, fear of cancer recurrence, fatigue, obesity and sedentary lifestyle are common symptoms reported by cancer survivors (Vardy et al. 2019).

Keratinocyte cancers rarely spread elsewhere in the body and are much less likely than other cancers to be fatal. There are some sites that pose a higher risk including SCC of the lip, ear or scalp.

All patients with a previous skin cancer are advised to undergo at least an ongoing annual skin examination as part of routine health checks by their healthcare provider to look for new lesions.

Evidence suggests that people diagnosed with keratinocyte cancer, particularly at a younger age, are at a greater risk of developing other cancers including breast, colon and lung cancers (Ong et al. 2014). Patients should be provided with information about preventing other cancers and educated on healthy lifestyle choices to improve general health and secondary prevention.

5.1 Transitioning from active treatment

The transition from active treatment to post-treatment care is critical to long-term health. In some cases, people will need ongoing, hospital-based care, and in other cases a shared follow-up care arrangement with their general practitioner may be appropriate. This will vary depending on the type and stage of cancer and needs to be planned.

Shared follow-up care involves the joint participation of specialists and general practitioners in the planned delivery of follow-up and survivorship care. A shared care plan is developed that outlines the responsibilities of members of the care team, the follow-up schedule, triggers for review, plans for rapid access into each setting and agreement regarding format, frequency and triggers for communication.

After completing initial treatment, a designated member of the multidisciplinary team (most commonly nursing or medical staff involved in the patient's care) should provide the patient with a needs assessment and treatment summary and develop a survivorship care plan in conjunction with the patient. This should include a comprehensive list of issues identified by all members of the multidisciplinary team involved in the patient's care and by the patient. These documents are key resources for the patient and their healthcare providers and can be used to improve communication and care coordination.

The **treatment summary** should cover, but is not limited to:

- the diagnostic tests performed and results
- diagnosis including stage, prognostic or severity score
- tumour characteristics
- treatment received (types and dates)
- current toxicities (severity, management and expected outcomes)
- interventions and treatment plans from other health providers
- potential long-term and late effects of treatment
- supportive care services provided
- follow-up schedule
- contact information for key healthcare providers.

5.2 Follow-up care

Responsibility for follow-up care should be agreed between the lead clinician, the general practitioner, relevant members of the multidisciplinary team and the patient. This is based on guideline recommendations for post-treatment care, as well as the patient's current and anticipated physical and emotional needs and preferences.

Evidence comparing shared follow-up care and specialised care indicates equivalence in outcomes including recurrence rate, cancer survival and quality of life (Cancer Research in Primary Care 2016).

Ongoing communication between healthcare providers involved in care and a clear understanding of roles and responsibilities is key to effective survivorship care.

In particular circumstances, other models of post-treatment care can be safely and effectively provided such as nurse-led models of care (Monterosso et al. 2019). Other models of post-treatment care can be provided in these locations or by these health professionals:

- in a shared care setting
- in a general practice setting
- by non-medical staff
- by allied health or nurses
- in a non-face-to-face setting (e.g. by telehealth).

A designated member of the team should document the agreed survivorship care plan. The survivorship care plan should support wellness and have a strong emphasis on healthy lifestyle changes such as a balanced diet, a non-sedentary lifestyle, weight management and a mix of aerobic and resistance exercise (COSA 2018; Hayes et al. 2019).

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

- what medical follow-up is required (surveillance for recurrence or secondary and metachronous cancers, screening and assessment for medical and psychosocial effects)
- model of post-treatment care, the health professional providing care and where it will be delivered
- care plans from other health providers to manage the consequences of cancer and cancer treatment
- wellbeing, primary and secondary prevention health recommendations that align with chronic disease management principles
- rehabilitation recommendations
- available support services
- a process for rapid re-entry to specialist medical services for suspected recurrence.

Survivors generally need regular follow-up, often for five or more years after cancer treatment finishes. The survivorship care plan therefore may need to be updated to reflect changes in the patient's clinical and psychosocial status and needs.

Surveillance after curative treatment for keratinocyte cancer is as follows:

- For patients with histological clearance and low-risk tumours (e.g. BCCs and well-differentiated SCCs), no specific follow-up scheme is recommended other than regular surveillance for new skin cancers.
- For patients following non-surgical treatments, where there is no histological evidence of clearance, follow-up should be initially at three months. Examination includes a full skin check for new lesions as well as inspection of the site of the original lesion.
- For moderately to poorly differentiated SCC, SCC on the lip or ear, and poor-prognosis SCC in immunosuppressed patients, follow-up should be initially at three months and then every six months and should always include examination of the draining lymph node basin.
- Patients should be made aware that regular self-examination is essential.

Processes for rapid re-entry to hospital care should be documented and communicated to the patient and relevant stakeholders.

Care in the post-treatment phase is driven by predicted risks (e.g. the risk of recurrence, developing late effects of treatment and psychological issues) as well as individual clinical and supportive care needs. It is important that post-treatment care is based on evidence and is consistent with guidelines. Not all people will require ongoing tests or clinical review and may be discharged to general practice follow-up.

The lead clinician should discuss (and general practitioner reinforce) options for follow-up at the start and end of treatment. It is critical for optimal aftercare that the designated member of the treatment team educates the patient about the symptoms of recurrence.

General practitioners (including nurses) can:

- connect patients to local community services and programs
- manage long-term and late effects
- manage comorbidities
- provide wellbeing information and advice to promote self-management
- screen for cancer and non-cancerous conditions.



More information

Templates and other resources to help with developing treatment summaries and survivorship care plans are available from these organisations:

- Australian Cancer Survivorship Centre
- Cancer Australia – Principles of Cancer Survivorship
- Cancer Council Australia and states and territories
- Clinical Oncology Society of Australia – Model of Survivorship Care
- eviQ – Cancer survivorship: introductory course
- MyCarePlan.org.au
- South Australian Cancer Service – Statewide Survivorship Framework resources
- American Society of Clinical Oncology – guidelines.

5.2.1 Preventing recurrence

Being SunSmart during sun protection times (whenever UV index levels are 3 or above) reduces the risk of new skin cancers. Not smoking, eating a healthy diet, avoiding or limiting alcohol intake, being physically active and maintaining a healthy body weight may help reduce the risk of primary recurrence or a second primary cancer.

Encourage and support all cancer survivors to reduce modifiable risk factors for recurrence as well as other chronic diseases. Ongoing coordination of care between providers should also deal with any comorbidities, particularly ongoing complex and life-threatening comorbid conditions.

5.3 Research and clinical trials

Support cancer survivors to participate in research or clinical trials where they are available and appropriate. These might include studies to understand survivors' issues, to better manage treatment side effects, or to improve models of care and quality of life.

For more information visit the Cancer Australia website <www.australiancancertrials.gov.au>.

5.4 Support and communication

5.4.1 Supportive care

See validated screening tools mentioned in Principle 4 'Supportive care'. Additionally, the 'Cancer Survivors Unmet Needs (CaSun)' is another validated screening tool that may help health professionals to identify the unmet needs of patients during survivorship.

Cancer survivors may require reminders about primary prevention measures for minimising their risk. Patients with skin cancers should be regularly reminded about sun protection measures and encouraged to download the SunSmart app on their smartphone.

For more information on supportive care and needs that may arise for different population groups, see Appendices A, B and C.

5.4.2 Rehabilitation and recovery

Rehabilitation may be required at any point of the care pathway from the pre-treatment phase through to disease-free survival and palliative care (Cornie et al. 2017).

Issues that may need to be dealt with include managing cancer-related fatigue, coping with cognitive changes, improving physical endurance, achieving independence in daily tasks, returning to study or work and ongoing adjustment to cancer and its sequels.

Exercise is a safe and effective intervention that improves the physical and emotional health and wellbeing of cancer patients. Exercise should be embedded as part of standard practice in cancer care and be viewed as an adjunct therapy that helps counteract the adverse effects of cancer and its treatment.

Cancer survivors may find referral to specific cancer rehabilitation, optimisation programs or community-based rehabilitation appropriate and beneficial. Other options include referral to allied health supports through team care arrangements and mental health plans. Some community support organisations (cancer-related non-government, not-for-profit and charities) provide services to cancer survivors.

5.4.3 Communication with patients, carers and families

The lead clinician (themselves or by delegation) should take responsibility for these tasks:

- explaining the model of post-treatment care and the roles of health professionals involved in post-treatment care including the role of general practice
- explaining the treatment summary and follow-up care plan
- providing advice on the importance of self-examination and standard sun protection strategies (Cancer Council Australia Keratinocyte Cancers Guideline Working Party 2019)
- discussing the development of a shared follow-up and survivorship care plan where a model of shared follow-up care has been agreed
- discussing how to manage any of the physical, psychological or emotional issues identified
- providing information on the signs and symptoms of recurrent disease
- providing a survivorship care plan with information on secondary prevention and healthy living
- providing contact details of the care team involved
- providing clear information about the role and benefits of palliative care and advance care planning.

5.4.4 Communication with the general practitioner

The lead clinician should ensure regular, timely, two-way communication with the general practitioner about:

- the patient's progress
- the follow-up care plan
- potential late effects
- supportive and palliative care requirements
- any shared care arrangements
- clarification of various roles in patient care
- a process for rapid re-entry to medical services for patients with suspected recurrence or if there are other concerns.



More information

Refer to Principle 6 'Communication' for communication skills training programs and resources.

Step 6: Managing recurrent, residual or metastatic disease

Patients who present with recurrent, residual or metastatic disease should be managed by a multidisciplinary team and offered timely referral to appropriate physical, practical and emotional support.

Step 6 is concerned with managing recurrent or local residual and metastatic 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. Some cancers cannot be eradicated even with the best initial treatment. But controlling disease and disease-related symptoms is often possible, depending on the clinical situation.

Unlike most other types of cancer, there is a much lower risk that keratinocyte cancer will metastasise. It is estimated that BCC will spread to other parts of the body in less than 1/1,000 to 1/35,000 cases. Recurrences commonly occur in the mid-face (H-zone). The risk is slightly higher for SCC, which spreads to other parts of the body in about 4 per cent of cases.

6.1 Signs and symptoms of metastatic disease

Some patients will have metastatic disease on initial presentation. Others may present with symptoms of recurrent disease after a previous cancer diagnosis. Access to the best available therapies, including clinical trials, as well as treatment overseen by a multidisciplinary team, are crucial to achieving the best outcomes for anyone with metastatic disease.

Signs and symptoms will depend on the type of cancer initially diagnosed and the location of metastatic disease. They may be discovered by the patient or by surveillance in the post-treatment period. Symptoms can often present as:

- new or changing skin lesions
- lumps or masses
- new/persistent symptoms.

These symptoms should be a trigger for further medical assessment.

The incidence of lymph node metastases from cutaneous SCC is low but may be considerably higher in the following scenarios:

- SCC occurring at sites of mucosal–squamous cell junctions, including the lip, anus and vulva
- immunosuppressed patients
- SCC occurring at sites of previous radiotherapy
- SCC arising in chronically inflamed/ulcerated areas.

Among patients who develop regional recurrence, specific tumour factors related to developing regional recurrence include the following:

- tumour size – SCCs larger than 20 mm are twice as likely to develop regional recurrence
- tumour site – SCCs located on the ear and lip have a higher rate of recurrence than SCCs in other sites
- tumour grade – poorly differentiated SCCs have double the recurrence rate of well-differentiated lesions
- tumour thickness – SCCs thicker than 4 mm recur three times more commonly than thinner lesions
- perineural invasion is the most serious predictor of regional recurrence, with up to 50 per cent developing regional recurrence (Cancer Council Australia Keratinocyte Cancers Guideline Working Party 2019).

6.2 Managing metastatic disease

Managing metastatic disease is complex and should therefore involve all the appropriate specialties in a multidisciplinary team including palliative care where appropriate. From the time of diagnosis, the team should offer patients appropriate psychosocial care, supportive care, advance care planning and symptom-related interventions as part of their routine care. The approach should be personalised to meet the patient's individual needs, values and preferences. The full complement of supportive care measures as described throughout the optimal care pathway and in Appendices A, B and C should be offered to assist patients and their families and carers to cope. These measures should be updated as the patient's circumstances change.

Survivorship care should be considered and offered at an early stage. Many people live with advanced cancer for many months or years. As survival is improving in many patients, survivorship issues should be considered as part of routine care. Health professionals should therefore be ready to change and adapt treatment strategies according to disease status, prior treatment tolerance and toxicities and the patient's quality of life, in addition to the patient's priorities and life plans.

6.3 Multidisciplinary team

If there is an indication that a patient's cancer has returned, care should be provided under the guidance of a treating specialist. Each patient should be evaluated to determine if referral to the original multidisciplinary team is necessary. Often referral back to the original multidisciplinary team will not be necessary unless there are obvious aspects of care involving different therapeutic and supportive care disciplines not otherwise accessible. The multidisciplinary team may include new members such as palliative care specialists.

6.4 Treatment

Treatment will depend on the location, extent of recurrent or residual disease, previous management and the patient's preferences.

The management for people with locally recurrent keratinocyte cancer is more urgent because patients have an increased risk of further regional recurrence and/or distant metastases. Treatment may include the following options.

In managing people with locally recurrent BCCs, treatment may include:

- surgical excision – excision of the lesion with the scar and any previously treated area is usually necessary
- radiation therapy – as primary treatment to a locally recurrent BCC or as adjuvant treatment after re-excision
- margin control surgery – for example, Mohs micrographic surgery (Cancer Council Australia Keratinocyte Cancers Guideline Working Party 2019).

In managing people with locally recurrent SCCs, treatment may include:

- surgical excision – excision of the lesion with the scar and any previously treated area is usually necessary
- radiation therapy – adjuvant radiation therapy following surgery should be considered for incompletely excised (residual) and locally recurrent SCCs, especially high-risk SCCs (e.g. rapidly growing tumours, recurrent disease, close margins [< 5 mm], perineural or lymphovascular invasion, in-transit metastases, and regional nodal involvement) (Cancer Council Australia Keratinocyte Cancers Guideline Working Party 2019).

In the management for people with nodal recurrent SCCs, treatment may include:

- surgery – this is the primary treatment for an SCC that has metastasised to the lymph nodes
- adjuvant radiation therapy – adjuvant radiation therapy following nodal surgery should be considered given high-risk disease following a complete excision (e.g. rapidly growing tumours, recurrent disease) (Cancer Council Australia Keratinocyte Cancers Guideline Working Party 2019)
- systemic therapy is available for a locally advanced or metastatic SCC and BCC that is not surgically resectable or suitable for radiation therapy – for metastatic SCCs, immunotherapy (e.g. checkpoint inhibitors), targeted therapy (e.g. epidermal growth factor inhibitors) and chemotherapy (as part of multimodal therapy or standalone therapy) are options that have demonstrated efficacy; for locally advanced or metastatic BCCs, targeted hedgehog inhibitor therapy (vismodegib and sonidegib) may be used for tumour suppression.

Some medications can predispose to keratinocyte cancer including immunosuppressives and photosensitizers such as voriconazole.

The potential goals of treatment should be discussed, respecting the patient's cultural values. Wherever possible, written information should be provided.

Encourage early referral to clinical trials or accepting an invitation to participate in research.

6.5 Advance care planning

Advance care planning is important for all patients with a cancer diagnosis but especially those with advanced disease. Patients should be encouraged to think and talk about their healthcare values and preferences with family or carers, appoint a substitute decision-maker and consider developing an advance care directive to convey their preferences for future health care in the event they become unable to communicate their wishes (AHMAC 2011).



More information

Refer to section 4.3 'More information' for links to resources.

Refer patients and carers to Advance Care Planning Australia <www.advancecareplanning.org.au> or to the Advance Care Planning National Phone Advisory Service on 1300 208 582.

6.6 Palliative care

Early referral to palliative care can improve the quality of life for people with cancer and in some cases may be associated with survival benefits (Haines 2011; Temel et al. 2010; Zimmermann et al. 2014). The treatment team should emphasise the value of palliative care in improving symptom management and quality of life to patients and their carers. Refer to section 4.3 for more detailed information.

The lead clinician should ensure timely and appropriate referral to palliative care services. Referral to palliative care services should be based on the patient's need and potential for benefit, not prognosis.



More information

Refer to the end of section 4.3 'Palliative care' for links to resources.

6.7 Research and clinical trials

The treatment team should support the patient to participate in research and clinical trials where available and appropriate.

For more information visit the Cancer Australia website <www.australiancancertrials.gov.au>.

6.8 Support and communication

6.8.1 Supportive care

See validated screening tools mentioned in Principle 4 'Supportive care'.

A number of specific challenges and needs may arise at this time for patients:

- assistance for dealing with emotional and psychological distress resulting from fear of death or dying, existential concerns, anticipatory grief, communicating wishes to loved ones, interpersonal problems and sexuality concerns
- potential isolation from normal support networks, particularly for rural patients who are staying away from home for treatment
- cognitive changes as a result of treatment and disease progression such as altered memory, attention and concentration (a patient may appoint someone to make medical, financial and legal decisions on their behalf – a substitute decision-maker – before and in case they experience cognitive decline)
- management of physical symptoms such as pain and paraesthesia
- disfigurement and scarring from appearance-altering treatment (and possible need for a prosthetic), which may require referral to a specialist, plastic surgeon who offers reconstructive scar revisional procedures, psychologist, psychiatrist or social worker
- possible wound complications following surgery requiring appropriate care by the practitioner who performed the surgery, the patient's general practitioner, or a specialist plastic and reconstructive surgeon
- lymphoedema, which may require referral to a trained lymphoedema practitioner
- decline in mobility or functional status as a result of recurrent disease and treatments (referral to physiotherapy or occupational therapy may be required)
- coping with hair loss and changes in physical appearance (refer to the Look Good, Feel Better program – see 'Resource list')

- appointing a substitute decision-maker and completing an advance care directive
- financial issues as a result of disease recurrence such as gaining early access to superannuation and insurance
- legal issues (completing a will, care of dependent children) and making an insurance, superannuation or social security claim on the basis of terminal illness or permanent disability.

6.8.2 Rehabilitation

Rehabilitation may be required at any point of the metastatic care pathway, from preparing for treatment through to palliative care. Issues that may need to be dealt with include managing cancer-related fatigue, improving physical endurance, achieving independence in daily tasks, returning to work and ongoing adjustment to cancer and its sequels.

Exercise is a safe and effective intervention that improves the physical and emotional health and wellbeing of cancer patients. Exercise should be embedded as part of standard practice in cancer care and be viewed as an adjunct therapy that helps counteract the adverse effects of cancer and its treatment.

6.8.3 Communication with patients, carers and families

The lead clinician should ensure there is adequate discussion with patients and carers about the diagnosis and recommended treatment, including treatment intent and possible outcomes, likely adverse effects and the supportive care options available.



More information

Refer to Principle 6 'Communication' for communication skills training programs and resources.

Step 7: End-of-life care

Step 7 is concerned with maintaining the patient's quality of life and meeting their health and supportive care needs as they approach the end of life, as well as the needs of their family and carers.

Some patients with advanced cancer will reach a time when active treatment is no longer appropriate. The team needs to share the principles of a palliative approach to care when making decisions with the patient and their family or carer. End-of-life care is appropriate when the patient's symptoms are increasing and functional status is declining.

7.1 Multidisciplinary palliative care

If the treatment team does not include a palliative care member, the lead clinician should consider referring the patient to palliative care services, with the general practitioner's engagement. This may include inpatient palliative unit access (as required).

The multidisciplinary team may consider seeking additional expertise from these professionals:

- clinical psychologist
- clinical nurse specialist or practitioner
- social worker
- palliative medicine specialist
- pain specialist
- pastoral or spiritual carer
- bereavement counsellor
- music therapist
- art therapist
- cultural expert
- Canteen for children of parents with cancer <www.canteen.org.au/young-people/my-parent-has-cancer/>.

The team might also recommend that patients access these services:

- home and community-based care
- specialist community palliative care workers
- community nursing.

If the patient does not already have an advance care directive in place, a designated member of the treatment team should encourage them to develop one in collaboration with their family or carer (AHMAC 2011).

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

The treatment team should also ensure that carers and families receive the information, support and guidance about their role according to their needs and wishes (Palliative Care Australia 2018).



More information

The treatment team can refer patients and carers to these resources:

- Palliative Care Australia <www.palliativecare.org.au>
- Advance Care Planning Australia <www.advancecareplanning.org.au> or to Advance Care Planning Australia's National Advisory Service on 1300 208 582.

7.2 Research and clinical trials

Clinical trials may help improve palliative care and in managing a patient's symptoms of advanced cancer (Cancer Council Victoria 2019). The treatment team should support the patient to participate in research and clinical trials where available and appropriate.

For more information visit the Cancer Australia website <www.australiancancertrials.gov.au>. See 'Resource list' for additional clinical trial databases.

7.3 Support and communication

7.3.1 Supportive care

See validated screening tools mentioned in Principle 4 'Supportive care'.

A number of specific challenges and needs may arise for patients at this time:

- assistance for dealing with emotional and psychological distress from anticipatory grief, fear of death or dying, anxiety/depression and interpersonal problems
- management of physical symptoms including pain, nausea, vomiting, anorexia, breathlessness and confusion
- possible wound complications following surgery requiring appropriate care by the practitioner who performed the surgery or the patient's general practitioner; further review by a wound specialist may be required
- decline in mobility or functional status, affecting the patient's discharge destination (a referral to physiotherapy, exercise physiology, occupational therapy or social work may be needed)
- appointing a substitute decision-maker and completing an advance care directive
- legal issues (completing a will, care of dependent children) and making an insurance, superannuation or social security claim on the basis of terminal illness or permanent disability
- specific support for families where a parent is dying and will leave behind bereaved children or adolescents, creating special family needs
- arranging a funeral.

These services and resources can help:

- referral to 13 11 20 for Cancer Council Australia's Pro Bono Program for free legal, financial, small business accounting and workplace assistance (subject to a means test)
- *Sad news sorry business* (Queensland Health 2015) for the specific needs of Aboriginal and Torres Strait Islander people.

For more information on supportive care and needs that may arise for different population groups, see Appendices A, B and C.

7.3.2 Communication with patients, carers and families

The lead clinician is responsible for:

- being open to and encouraging discussion with the patient about the expected disease course, considering the patient's personal and cultural beliefs and expectations
- discussing palliative care options, including inpatient and community-based services as well as dying at home and subsequent arrangements
- providing the patient and carer with the contact details of a palliative care service
- referring the patient to palliative care in the community according to the carer's wishes.

7.3.3 Communication with the general practitioner

The lead clinician should discuss end-of-life care planning to ensure the patient's needs and goals are met in the appropriate environment. The patient's general practitioner should be kept fully informed and involved in major developments in the patient's illness path.



More information

For support with communication skills and training programs, see these sources:

- *Sad news sorry business* <www.health.qld.gov.au/__data/assets/pdf_file/0023/151736/sorry_business.pdf>
- Principle 6 'Communication'.

Contributors and reviewers

Our thanks to the following health professionals, consumer representatives, stakeholders and organisations consulted in developing this optimal care pathway.

Expert working group (this edition)

Associate Professor Chris McCormack (Co-chair), Dermatologist, Peter MacCallum Cancer Centre

Dr David Speakman (Co-chair), Surgeon, Peter MacCallum Cancer Centre

Dr Felix Choi, General Practitioner, Australian Skin Cancer Clinics New South Wales

Mr Wai-Ting Choi, Plastic Surgeon, Western Health

Professor Jon Emery, Herman Professor of Primary Care Cancer Research, The University of Melbourne

Dr Michelle Goh, Dermatologist, Peter MacCallum Cancer Centre

Dr Mukesh Haikerwal AC, General Practitioner, Altona North Medica Group and Flinders University

Dr Eldon Mah, Plastic Surgeon, Parkside Plastic Surgeon

Dr Jeanne North, General Practitioner, Altona North Medical Group

Dr Kathy Pope, Radiation Oncologist, Peter MacCallum Cancer Centre

Dr Morton Rawlin, General Practitioner, Macedon Medical Centre, Templestowe Lower

Dr Stephen Shumack, Dermatologist, Central Sydney Dermatology

Professor Robert Thomas, Special Advisor on Health, Professorial Fellow, The University of Melbourne

Dr Edward Upjohn, Dermatologist, Peter MacCallum Cancer Centre

Professor David Whiteman, Medical Epidemiologist, QIMR Berghofer Medical Research Institute, Queensland

Ms Julia Brancato, Project Coordinator, Optimal Care Pathways, Cancer Council Victoria

Expert working group (previous edition)

Professor John Thompson (Chair), Surgical Oncologist, Royal Prince Alfred Hospital, University of Sydney

Dr Wai-ting Choi, Plastic Surgeon, Austin Health

Dr Felix Choi, General Practitioner, Australian Skin Cancer Clinics

Dr Alvin Chong, Dermatologist and Senior Lecturer, St Vincent's Hospital Melbourne, Skin & Cancer Foundation Inc., The University of Melbourne

Professor Jon Emery, General Practitioner, Professor of Primary Care Cancer Research, The University of Melbourne, Western Health

Dr Vanessa Estall, Radiation Oncologist, Peter MacCallum Cancer Centre

Dr Michelle Goh, Dermatologist, Peter MacCallum Cancer Centre

Dr Vanessa Haller, General Practitioner, Southern Skin Cancer Clinic, Mornington Peninsula and Carrum Downs

Ms Mary Macheras-Magius, President, Consumer Action Victoria

Professor Mukesh Haikerwal AO, General Medical Practitioner, Chair Australian Institute of Health and Welfare; Professor, Faculty of Medicine, Flinders University School of Medicine; Board, Cancer Council Victoria

Ms Nicola Quin, Head of Division, Strategy and Support, Cancer Council Victoria

Associate Professor Morton Rawlin, General Practitioner, Vice President Royal Australian College of General Practitioners, Sydney University

Dr David Speakman, Surgical Oncologist, Peter MacCallum Cancer Centre

Dr Edward Upjohn, Dermatologist, Dermatological Surgeon, The Royal Melbourne Hospital

Professor David Whiteman, Medical Epidemiologist, Cancer Control Group Leader, QIMR Berghofer Medical Research Institute

Ms Kathryn Whitfield, Acting Manager Cancer Services, Department of Health and Human Services

Alexandra Viner, Project Manager – Optimal Care Pathways

Medical colleges and peak organisations invited to provide feedback

Advance Care Planning Australia

Allied Health Professions Australia

Australasian Association of Nuclear Medicine Specialists

Australasian Chapter of Palliative Medicine, Royal Australia College of Physicians

Australian and New Zealand Society of Neuroradiology

Australian and New Zealand Society of Palliative Care

Australian Cancer Survivorship Centre

Australian College of Nursing

Australian Medical Association

Australian Society of Medical Imaging and Radiation Therapy

Australian Society of Plastic Surgeons

Cancer Nurses Society of Australia

Clinical Oncology Society of Australia

Interventional Radiology Society of Australasia

Medical Oncology Group of Australia

Oncology Social Workers Australia and New Zealand

Royal Australasian College of Physicians

Royal Australasian College of Surgeons

Royal Australian and New Zealand College of Radiologists

Royal Australian College of General Practitioners

Royal College of Pathologists of Australasia

Skin Cancer College Australasia

The Australasian College of Dermatologists

Governance – project steering committee representation

Alfred Health

Cancer Australia

Cancer Council Victoria, Strategy and Support Division

Cancer Institute New South Wales

Concord Repatriation General Hospital New South Wales

Consumer representative

Department of Health Victoria, Commissioning and System Improvement Division, Cancer Unit

National Cancer Expert Reference Group

Olivia Newton-John Cancer Wellness and Research Centre

St Vincent's Hospital Melbourne

Other stakeholders consulted to provide feedback include relevant Cancer Council committees and networks, Integrated Cancer Services, Primary Health Networks and several health services.

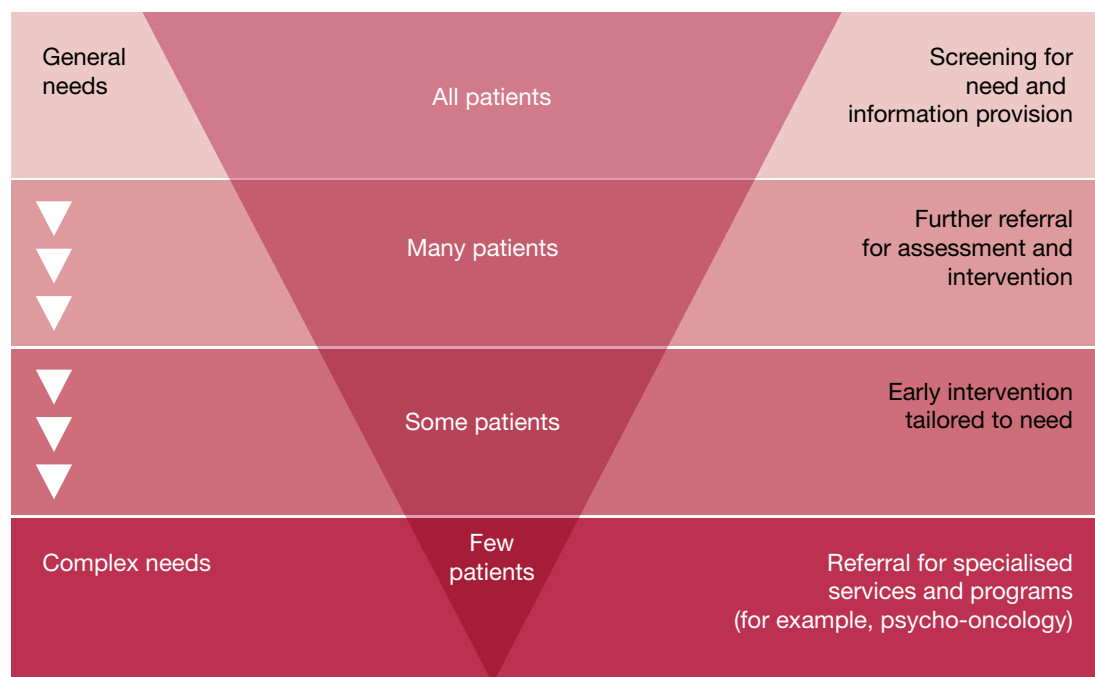
Appendix A: Supportive care domains

Supportive care in cancer refers to the following five domains:

- the physical domain, which includes a wide range of physical symptoms that may be acute, relatively short lived or ongoing, requiring continuing interventions or rehabilitation
- the psychological domain, which includes a range of issues related to the patient's mental health wellbeing and personal relationships
- the social domain, which includes a range of social and practical issues that will affect the patient, carer and family such as the need for emotional support, maintaining social networks and financial concerns
- the information domain, which includes access to information about cancer and its treatment, recovery and survivorship support services and the health system overall
- the spiritual domain, which focuses on the patient's changing sense of self and challenges to their underlying beliefs and existential concerns (Palliative Care Victoria 2019).

Fitch's (2000) model of supportive care recognises the variety and level of intervention required at each critical point as well as the need to be specific to the individual patient (Figure A1). The model targets the type and level of intervention required to meet patients' supportive care needs.

Figure A1: Fitch's tiered approach to supportive care



Appendix B: Psychological needs

Distress can occur for patients with perceived disfiguring scars, such as those that occur with skin grafting and surgical removal of keratinocyte cancer, particularly in the face, head and neck. Providing patients with tailored and accurate information before undergoing treatment, facilitating patient decisions regarding appearance-altering treatment, and meeting peers with similar personal experience may help some patients. An opinion from a plastic and reconstructive surgeon for potential scar revision procedures should be considered.

Consider a referral to a psychologist, psychiatrist, pastoral/spiritual care practitioner, social worker, specialist nurse or a relevant community-based program if the patient has these issues:

- displaying emotional cues such as tearfulness, distress that requires specialist intervention, avoidance or withdrawal
- being preoccupied with or dwelling on thoughts about cancer and death
- displaying fears about the treatment process or the changed goals of their treatment
- displaying excessive fears about cancer progression or recurrence
- worrying about loss associated with their daily function, dependence on others and loss of dignity
- becoming isolated from family and friends and withdrawing from company and activities that they previously enjoyed
- feeling hopeless and helpless about the effect that cancer is having on their life and the disruption to their life plans
- struggling to communicate with family and loved ones about the implications of their cancer diagnosis and treatment
- experiencing changes in sexual intimacy, libido and function
- struggling with the diagnosis of metastatic or advanced disease
- having difficulties quitting smoking (refer to Quitline on 13 7848) or with other drug and alcohol use
- having difficulties transitioning to palliative care.

Additional considerations that may arise for the multidisciplinary team include:

- support for the carer – encourage referrals to psychosocial support from a social worker, psychologist or general practitioner
- referral to an exercise physiologist or physiotherapist as a therapeutic approach to prevent and manage psychological health
- referral to wellness-after-cancer programs to provide support, information and offer strategies.

Appendix C: Special population groups

The burden of cancer is not evenly spread across Australia. People experiencing socioeconomic disadvantage, Aboriginal and Torres Strait Islander communities, culturally diverse communities, people living with a disability, people with chronic mental health or psychiatric concerns and those who live in regional and rural areas of Australia have poorer cancer outcomes.

Aboriginal and Torres Strait Islander people

Cancer is the third leading cause of burden of disease for Aboriginal and Torres Strait Islander people. While Australia's cancer survival rates are among the best in the world, Aboriginal and Torres Strait Islander people continue to experience a different pattern of cancer incidence and significant disparities in cancer outcomes compared with non-Indigenous Australians. Nonetheless, skin cancers are exceedingly rare in Aboriginal and Torres Strait Islander people.

For Aboriginal and Torres Strait Islander people, health and connection to land, culture, community and identity are intrinsically linked. Health encompasses a whole-of-life view and includes a cyclical concept of life–death–life.

The distinct epidemiology of cancer among Aboriginal and Torres Strait Islander people, and unique connection to culture, highlight the need for a specific optimal care pathway for Aboriginal and Torres Strait Islander people with cancer. Ensuring this pathway is culturally safe and supportive is vital to tackling the disparities for Aboriginal and Torres Strait Islander people.

Published in 2018, the *Optimal care pathway for Aboriginal and Torres Strait Islander people with cancer* provides guidance to health practitioners and service planners on optimal care for Aboriginal and Torres Strait Islander people with cancer across the cancer continuum.

In addition to the key principles underpinning cancer-specific pathways, these are the key concepts that are fundamental to Aboriginal and Torres Strait Islander health:

- providing a holistic approach to health and wellbeing
- providing a culturally appropriate and culturally safe service
- acknowledging the diversity of Aboriginal and Torres Strait Islander peoples
- understanding the social determinants and cultural determinants of health (Cancer Australia 2015).

To view the *Optimal care pathway for Aboriginal and Torres Strait Islander people with cancer*, visit the Cancer Australia website <<https://www.canceraustralia.gov.au/affected-cancer/atsi/resources-health>>. To view the consumer resources – *Checking for cancer* and *Cancer*, visit the Cancer Australia website <<https://www.canceraustralia.gov.au/affected-cancer/atsi/resources-people>>.

Culturally diverse communities

For people from culturally diverse backgrounds in Australia, a cancer diagnosis can come with additional complexities, particularly when English proficiency is poor. In many languages there is not a direct translation of the word 'cancer', which can make communicating vital information difficult. Perceptions of cancer and related issues can differ greatly in people from culturally diverse backgrounds and this can affect their understanding and decision making after a cancer diagnosis. In addition to different cultural beliefs, when English language is limited there is potential for miscommunication of important information and advice, which can lead to increased stress and anxiety for patients.

A professionally trained interpreter (not a family member or friend) should be made available when communicating with people with limited English proficiency. Navigation of the Australian healthcare system can pose problems for those with a non-Anglo culture, and members of the treatment teams should pay particular attention to supporting these patients.

The Australian Cancer Survivorship Centre has developed a glossary of more than 700 cancer terms in nine different languages. The multilingual glossary has been designed as a resource for professional translators, interpreters and bilingual health professionals working in the cancer field. The glossary is a unique tool that enables language professionals with access to accurate, consistent and culturally appropriate terminology.

Visit the Peter Mac website <www.petermac.org/multilingualglossary> to see the glossary.

People with disabilities

Disability, which can be physical, intellectual or psychological, may have existed before the cancer diagnosis or may be new in onset (occurring due to the cancer treatment or incidentally). Adjusting to life with a disability adds another challenge to cancer care and survivorship.

Several barriers prevent people with disabilities from accessing timely and effective health care (AIHW 2017):

- physical limitations
- competing health needs
- the trauma of undergoing invasive procedures
- potential barriers associated with obtaining informed consent
- failure to provide assistance with communication
- lack of information
- discriminatory attitudes among healthcare staff.

In caring for people with disabilities and a cancer diagnosis, the Australian Institute of Health and Welfare disability flag should be used at the point of admittance to correctly identify and meet the additional requirements of a person with disability. Facilities should actively consider access requirements, and health practitioners should make reasonable adjustments where required.

Patients aged between seven and 65 years who have a permanent or significant disability may be eligible for support or funding through the National Disability Insurance Scheme (National Disability Insurance Agency 2018). More information can be found on the NDIS website <www.ndis.gov.au>.

Patients aged 65 years or older (50 years or older for Aboriginal or Torres Strait Islander people) may be eligible for subsidised support and services through aged care services. An application to determine eligibility can be completed online over the phone. More information can be found at the My Aged Care website <www.myagedcare.gov.au>.



More information

'Talking End of Life' is a resource that shows how to teach people with intellectual disability about end of life. It is designed for disability support workers but is also helpful for others including families, health professionals and educators.

To view the resource, visit the Talking End of Life website <www.caresearch.com.au/tel/tabid/4881/Default.aspx>.

Older people with cancer

Planning and delivering appropriate cancer care for older people can present a number of challenges. This could also be true for frail people or those experiencing comorbidities. Effective communication between oncology and geriatrics departments will help facilitate best practice care, which takes into account physiological age, complex comorbidities, risk of adverse events and drug interactions, as well as the implications of cognitive impairment on suitability of treatment and consent (Steer et al. 2009).

At a national interdisciplinary workshop convened by the Clinical Oncology Society of Australia, it was recommended that people over the age of 70 undergo some form of geriatric assessment, in line with international guidelines (COSA 2013; palliAGED 2018). Screening tools can be used to identify those patients 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 (Wildiers et al. 2014).

Frailty is not captured through traditional measures of performance status (e.g. ECOG) and includes assessment in the domains of:

- function
- comorbidity
- presence of geriatric syndromes
- nutrition
- polypharmacy
- cognition
- emotional status
- social supports.

Adolescents and young adults

In recent years, adolescent and young adult oncology has emerged as a distinct field due to lack of progress in survival and quality-of-life outcomes (Ferrari et al. 2010; Smith et al. 2013). The significant developmental change that occurs during this life stage complicates a diagnosis of cancer, often leading to unique physical, social and emotional effects for young people at the time of diagnosis and throughout the cancer journey (Smith et al. 2012).

In caring for young people with cancer, akin to the comorbidities that require specific care in the older cancer population, the treatment team needs to pay careful attention to promoting normal development (COSA 2014). This requires personalised assessments and management involving a multidisciplinary, disease-specific, developmentally targeted approach that adheres to the following principles:

- understanding the developmental stages of adolescence and supporting normal adolescent health and development alongside cancer management
- understanding and supporting the rights of young people
- communication skills and information delivery that are appropriate to the young person
- meeting the needs of all involved, including the young person, their carers and their family
- working with educational institutions and workplaces
- considering survivorship and palliative care needs.

An oncology team caring for an adolescent or young adult with cancer should be able to demonstrate these specific areas of expertise:

- be able to ensure access to expert adolescent and young adult health providers who have knowledge specific to the biomedical and psychosocial needs of the population
- understand the biology and current management of the disease in the adolescent and young adult age group
- consider participating in research and clinical trials for each patient
- engage in proactive discussion and management of fertility preservation, late effects of treatment, ongoing need for contraception, and psychosocial and psychosexual needs
- provide treatment in an environment that is friendly to adolescents and young adults.

People experiencing socioeconomic disadvantage

In general, people from lower socioeconomic groups are at greater risk of poor health, have higher rates of illness, disability and death, and live shorter lives than those from higher socioeconomic groups (AIHW 2016). People experiencing socioeconomic disadvantage are less likely to participate in screening programs, more likely to be obese, less likely to exercise and much more likely to smoke, which are all risk factors for cancer. In 2010–2014 age-standardised cancer incidence rates were higher in the lowest socioeconomic areas compared with the highest socioeconomic areas for all cancers combined (Cancer Australia 2019b).

Socioeconomic status and low health literacy are closely correlated. Therefore, effective communication with patients and carers is particularly important given the prevalence of low health literacy in Australia (estimated at 60 per cent of Australian adults) (ACSQHC 2014).

Consideration should be taken for cancer patients experiencing socioeconomic disadvantage to reduce their risk of being underserved for health care.

People with chronic mental health or psychiatric concerns

A diagnosis of cancer may present additional challenges to people who have pre-existing chronic mental health or psychiatric concerns, resulting in exacerbation of their mental health symptoms. This may include heightened anxiety, worsening depression or thoughts of self-harm.

As poor adjustment and coping can affect treatment decisions, people who are known to have a mental health diagnosis need psychosocial assessment in the oncology setting to formulate a plan for ongoing support throughout treatment.

Psychosocial support can assist with challenges in communicating with health professionals, enhance understanding of the treatment journey, ensure capacity for consent to treatment options and improve compliance with treatment requests. A referral for psychosocial support from a health professional to the psycho-oncology team can ensure these patients are provided with targeted interventions or referrals to community-based services that may mitigate problems associated with the impacts of social isolation that frequently accompany chronic mental ill-health.

Many patients with chronic mental health problems may be well known to external service providers. Psycho-oncology health professionals can form meaningful partnerships with existing service providers to optimise patient care throughout treatment and beyond.

Drug use disorders fall within the area of mental health conditions. People who are opiate dependent may have specific and individual requirements regarding pain management and their own preference for type of opiate prescribed or used.

Sexually and gender diverse groups

People who identify as sexually or gender diverse may have unique needs following a cancer diagnosis. Sexually or gender diverse identities include (but are not limited to) people who identify as lesbian, gay, bisexual or transgender, collectively 'LGBT'. There is no universally agreed upon initialism to describe this community, with other terms such as queer/questioning (Q), intersex (I), asexual (A) and pansexual (P) often included, as well as a plus symbol (+) indicating inclusivity of other identities not explicitly mentioned.

Sexual orientation and gender identity are relevant across the entire spectrum of cancer care, from prevention to survivorship and end-of-life care. LGBT people are less likely to participate in cancer screening, and some segments of the LGBT community exhibit elevated rates of specific cancer risk factors – for example, higher rates of smoking and alcohol use. Regarding treatment, there may be unique factors relevant to LGBT people that may affect decision making. Additionally, the LGBT population experiences higher rates of anxiety, depression and stressful life circumstances, and may be at risk of inferior psychosocial outcomes following a cancer diagnosis. LGBT people are also more likely to be estranged from their families of origin, and for older people, less likely to have adult children who may provide support and care.

Barriers to care for LGBT people include past negative interactions with healthcare systems, experiences or fear of discrimination and harassment in healthcare settings, assumptions of cisgender/heterosexual identity, lack of recognition or exclusion of same-sex partners from care, and a lack of relevant supportive care and information resources.

To provide safe and appropriate care for LGBT people with cancer, healthcare providers should:

- display environmental cues to show an inclusive and safe setting for LGBT patients
- avoid assumptions about the sexual orientation or gender identity of patients and their partners
- facilitate positive disclosure of sexual orientation or gender identity
- include same-sex/gender partners and families of choice in care
- be aware of relevant supportive care and information resources
- provide non-judgemental, patient-centred care.

Appendix D: Complementary therapies

Complementary therapies may be used together with conventional medical treatments to support and enhance quality of life and wellbeing. They do not aim to cure the patient's cancer. Instead, they are used to help control symptoms such as pain and fatigue (Cancer Council Australia 2019).

The lead clinician or health professional involved in the patient's care should discuss the patient's use (or intended use) of complementary therapies not prescribed by the multidisciplinary team to assess safety and efficacy and to identify any potential toxicity or drug interactions.

The lead clinician should seek a comprehensive list of all complementary and alternative medicines being taken and explore the patient's reason for using these therapies and the evidence base. A transparent and honest discussion that is free from judgement should be encouraged.

While some complementary therapies are supported by strong evidence, others are not. For such therapies, the lead clinician should discuss their potential benefits and use them alongside conventional therapies (NHMRC 2014).

If the patient expresses an interest in using complementary therapies, the lead clinician should consider referring patients to health providers within the multidisciplinary team who have expertise in the field of complementary and alternative therapies (e.g. a clinical pharmacist, dietitian or psychologist) to assist them to reach an informed decision. Costs of such approaches should be part of the discussion with the patient and considered in the context of evidence of benefit.

The lead clinician should assure patients who use complementary therapies that they can still access a multidisciplinary team review and encourage full disclosure about therapies being used.



More information

- See Cancer Australia's position statement on complementary and alternative therapies <www.canceraustralia.gov.au/publications-and-resources/position-statements/complementary-and-alternative-therapies>.
- See the Clinical Oncological Society of Australia's position statement *Use of complementary and alternative medicine by cancer patients* <www.cosa.org.au/publications/position-statements.aspx>.

Appendix E: Members of the multidisciplinary team for keratinocyte cancer

The multidisciplinary team may include the following members:

- care coordinator (as determined by the multidisciplinary team members)*
- dermatologist*
- nurse (with appropriate expertise in wound management)*
- pathologist*
- radiation oncologist*
- radiologist/imaging specialist*
- plastic surgeon/ surgeon*
- Aboriginal health practitioner, Indigenous liaison officer or remote general practitioner
- clinical trials coordinator
- dietitian
- exercise physiologist
- fertility specialist
- general practitioner
- medical oncologist
- nuclear medicine physician
- occupational therapist
- palliative care specialist
- pharmacist
- physiotherapist
- psychiatrist
- psychologist
- social worker
- spiritual/pastoral care.

* Denotes core members. Core members of the multidisciplinary team are expected to attend most multidisciplinary team meetings either in person or remotely.

Resource list

For patients, families and carers

Advance Care Planning Australia

Advance Care Planning Australia provides national advance care planning resources for individuals, families, health professional and service providers. Resources include a national advisory service, information resources, a legal forms hub and education modules.

- Telephone: 1300 208 582
- Website <www.advancecareplanning.org.au>

Australian Cancer Survivorship Centre

The Australian Cancer Survivorship Centre has developed information resources and events to help people move from initial treatment to post treatment and beyond, including those receiving maintenance treatments. While they do not provide clinical advice, they connect with a range of providers to enable improved care.

- Telephone: (03) 8559 6220
- Website <www.petermac.org/cancersurvivorship>

Australian Cancer Trials

Information on the latest clinical trials in cancer care, including trials that are recruiting new participants.

- Website <www.australiancancertrials.gov.au>

Australian Commission on Safety and Quality in Health Care

The Australian Commission on Safety and Quality in Health Care has developed a resource for patients and carers explaining the coordination of care that patients should receive from their health service during cancer treatment. The resource is called *What to expect when receiving medication for cancer care* <<https://www.safetyandquality.gov.au/publications-and-resources/resource-library/what-expect-when-receiving-medication-cancer-care>>.

Beyond Blue

Beyond Blue provides information about depression, anxiety and related disorders, as well as about available treatment and support services.

- Telephone: 1300 22 4636
- Website <www.beyondblue.org.au>

Cancer Australia

Cancer Australia provides information for consumers, carers and their families including printed resources and video content.

- Website <www.canceraustralia.gov.au>

Cancer Council's Cancer Information and Support Service

Cancer Council 13 11 20 is a confidential telephone support service available to anyone affected by cancer. This service acts as a gateway to evidence-based documented, practical and emotional support available through Cancer Council services and other community organisations. Calls will be answered by a nurse or other oncology professional who can provide information relevant to a patient's or carer's situation. Health professionals can also access this service.

- Telephone: 13 11 20 – Monday to Friday, 9.00am to 5.00pm (some states have extended hours)
- Website <www.cancer.org.au/about-us/state-and-territory-councils/>

Cancer Council's Cancer Connect

Cancer Connect is a free and confidential telephone peer support service that connects someone who has cancer with a specially trained volunteer who has had a similar cancer experience.

A Connect volunteer can listen with understanding and share their experiences and ways of coping. They can provide practical information, emotional support and hope. Many people newly diagnosed with cancer find this one-to-one support very beneficial.

For more information on Cancer Connect call Cancer Council on 13 11 20.

Canteen

Canteen helps adolescents, young adults and parents to cope with cancer in their family. Canteen offers individual support services, peer support services and a youth cancer service, as well as books, resources and useful links.

- Telephone: 1800 835 932 to talk to a health professional about information and support for young people or 1800 226 833 for other enquiries
- Website <www.canteen.org.au/>

Clinical trial information

For a collection of clinical trials available in Australia see the following sources of information:

- Australian clinical trials <www.australianclinicaltrials.gov.au/>
- Australian New Zealand Clinical Trials Registry <www.anzctr.org.au/>
- ClinicalTrials.gov <www.clinicaltrials.gov/>.

CanEAT pathway

A guide to optimal cancer nutrition for people with cancer, carers and health professionals.

- Website <<https://education.eviq.org.au/courses/supportive-care/malnutrition-in-cancer/>>
- Website <<https://patients.cancer.nsw.gov.au/coping-with-cancer/physical-wellbeing/eating-well/>>

Guides to best cancer care

The short guides help patients, carers and families understand the optimal cancer care that should be provided at each step. They include optimal timeframes within which tests or procedures should be completed, prompt lists to support patients to understand what might happen at each step of their cancer journey and to consider what questions to ask, and provide information to help patients and carers communicate with health professionals.

The guides are located on an interactive web portal, with downloadable PDFs available in multiple languages.

- Website <www.cancercareguides.org.au/>

Look Good, Feel Better

A free national community service program, run by the Cancer Patients Foundation, dedicated to teaching cancer patients how to manage the appearance-related side effects caused by treatment for any type of cancer.

- Telephone: 1800 650 960
- Website <<https://lgfb.org.au/>>

Quitline

Quitline is a confidential, evidence-based telephone counselling service. Highly trained Quitline counsellors use behaviour change techniques and motivational interviewing over multiple calls to help people plan, make and sustain a quit attempt.

Quitline is a culturally inclusive service for all, and Aboriginal counsellors are also available. Health professionals can refer patients to Quitline online or via fax.

- Telephone: 13 7848
- Website <www.quit.org.au> or the relevant website in your state or territory.

SunSmart

SunSmart is a skin cancer prevention and early detection program. The program provides skin cancer prevention and early detection education, resources and support for workplaces, schools, early childhood services, health professionals and community members.

The free SunSmart app tells you when sun protection is recommended for your location using forecast information from the Bureau of Meteorology website and live UV data from the Australian Radiation Protection and Nuclear Safety Agency.

- Website <www.sunsmart.com.au>
- Website <<https://www.sunsmart.com.au/tools/interactive-tools/free-sunsmart-app>>

Scan Your Skin

A skin cancer risk assessment questionnaire to assist people in assessing their skin cancer risk.

- Website <<http://www.scanyourskin.org/risk-prediction-tool/>>

For health providers

Australasian Lymphology Association

The Australasian Lymphology Association has a number of resources to help people gain an understanding of lymphoedema and the treatments available for the condition.

- Telephone: 1300 935 332
- Website <www.lymphoedema.org.au>

Australian Cancer Survivorship Centre

The Australian Cancer Survivorship Centre provides expertise in survivorship care, information, support and education. Its purpose is to support and enable optimal survivorship care.

- Telephone: (03) 8559 6220
- Website <www.petermac.org/cancersurvivorship>

Australian Commission on Safety and Quality in Health Care

The Australian Commission on Safety and Quality in Health Care has developed a guide for clinicians containing evidence-based strategies to support clinicians to understand and fulfil their responsibilities to cancer patients. This guide is particularly relevant to steps 3 to 6 of the optimal care pathway. The guide is titled *NSQHS Standards user guide for medication management in cancer care for clinicians* <<https://www.safetyandquality.gov.au/publications-and-resources/resource-library/nsqhs-standards-user-guide-medication-management-cancer-care-clinicians>>.

Cancer Australia

Information for health providers including guidelines, cancer learnings, cancer guides, reports, resources, videos, posters and pamphlets.

- Website <www.cancer australia.gov.au>

Cancer Council Australia

Information on prevention, research, treatment and support provided by Australia's peak independent cancer authority.

- Website <www.cancer.org.au>

CanEAT pathway

A guide to optimal cancer nutrition for people with cancer, carers and health professionals.

- Website <<https://education.eviq.org.au/courses/supportive-care/malnutrition-in-cancer>>
- Website <<https://patients.cancer.nsw.gov.au/coping-with-cancer/physical-wellbeing/eating-well>>.

eviQ

A clinical information resource providing health professionals with current evidence-based, peer-maintained, best practice cancer treatment protocols and information relevant to the Australian clinical environment.

- Website <www.eviq.org.au>

National Health and Medical Research Council

Information on clinical practice guidelines, cancer prevention and treatment.

- Website <www.nhmrc.gov.au>

Wounds Australia

A member organisation for developing and improving wound management through education, research, communication and networks.

- Telephone: 1800 870 855
- Website <<https://www.woundsaustralia.com.au/>>

Glossary

advance care directive – voluntary person-led document that focus on an individual's values and preferences for future health and medical treatment decisions, preferred outcomes and care. They are completed and signed by a competent person. They are recognised by specific legislation (statutory) or common law (non-statutory). Advance care directives can also appoint the substitute decision-maker(s) who can make decisions about health or personal care on the individual's behalf if they are no longer able to make decisions themselves. Advance care directives focus on the future health care of a person, not on the management of his or her assets. They come into effect when an individual loses decision-making capacity.

advance care planning – the process of planning for future health and personal care, where the person's values, beliefs and preferences are made known so they can guide decision making at a future time when that person cannot make or communicate their decisions.

alternative therapies – treatments used in place of conventional medical treatment.

care coordinator – the health provider nominated by the multidisciplinary team to coordinate patient care. The care coordinator may change over time depending on the patient's stage in the care pathway and the location and care in which care is being delivered.

complementary therapies – supportive treatment used in conjunction with conventional medical treatment. These treatments may improve wellbeing and quality of life and help people deal with the side effects of cancer.

end-of-life care – includes physical, spiritual and psychosocial assessment, and care and treatment, delivered by health professionals and ancillary staff. It also includes support of families and carers and care of the patient's body after their death.

immunotherapy – a type of cancer treatment that helps the body's immune system to fight cancer. Immunotherapy can boost the immune system to work better against cancer or remove barriers to the immune system attacking the cancer.

indicator – a documentable or measurable piece of information regarding a recommendation in the optimal care pathway.

informed financial consent – the provision of cost information to patients, including notification of likely out-of-pocket expenses (gaps), by all relevant service providers, preferably in writing, before admission to hospital or treatment (Commonwealth Department of Health 2017).

lead clinician – the clinician who is nominated as being responsible for individual patient care. The lead clinician may change over time depending on the stage of the care pathway and where care is being provided.

metastatic disease – cancer that has spread from the part of the body where it started (the primary site) to other parts of the body.

multidisciplinary care – an integrated team approach to health care in which medical and allied health providers consider all relevant treatment options and collaboratively develop an individual treatment plan for each patient.

multidisciplinary team – comprises the core disciplines that are integral to providing good care. The team is flexible in approach, reflects the patient's clinical and psychosocial needs and has processes to facilitate good communication.

multidisciplinary team meeting – a meeting of health professionals from one or more clinical disciplines who together make decisions about recommended treatment of patients.

optimal care pathway – the key principles and practices required at each stage of the care pathway to guide the delivery of consistent, safe, high-quality and evidence-based care for all people affected by cancer.

performance status – an objective measure of how well a patient can carry out activities of daily life.

primary care health professional – in most cases this is a general practitioner but may also include general practice nurses, community nurses, nurse practitioners, allied health professionals, midwives, pharmacists, dentists and Aboriginal health workers.

spiritual care – the aspect of humanity that refers to the way individuals seek and express meaning and purpose and the way they experience their connectedness to the moment, to self, to others, to nature, and to the significant or sacred.

substitute decision-maker – a person permitted under the law to make decisions on behalf of someone who does not have competence or capacity.

supportive care – care and support that aims to improve the quality of life of people living with cancer, cancer survivors and their family and carers and particular forms of care that supplement clinical treatment modalities.

survivorship – an individual is considered a cancer survivor from the time of diagnosis, and throughout their life; the term includes individuals receiving initial or maintenance treatment, in recovery or in the post-treatment phase.

survivorship care plan – a formal, written document that provides details of a person's cancer diagnosis and treatment, potential late and long-term effects arising from the cancer and its treatment, recommended follow-up, surveillance, and strategies to remain well.

targeted therapy – a medicine that blocks the growth and spread of cancer by interfering with specific molecules.

References

- Australian Adult Cancer Pain Management Guideline Working Party 2019, *Australian adult cancer pain management guideline: 'Cancer pain management in adults'*, Cancer Council Australia, Sydney, viewed 6 June 2019, <<https://wiki.cancer.org.au/australiawiki/index.php?oldid=191646>>.
- Australian Cancer Society 2019, 'Targeted therapy for basal and squamous cell skin cancers', viewed 12 February 2020, <<https://www.cancer.org/cancer/basal-and-squamous-cell-skin-cancer/treating/targeted-therapy.html>>.
- Australian Cancer Survivorship Centre 2019, *Community support organisations' cancer survivorship care consensus statement*, viewed 10 February 2020, <https://www.petermac.org/sites/default/files/media-uploads/NGO_ConsensusStatement.pdf>.
- Australian Clinical Trials 2015, 'Potential benefits and risks', National Health and Medical Research Council, Department of Industry, Innovation and Science, Australian Government, Canberra, viewed 24 July 2019, <<https://www.australianclinicaltrials.gov.au/why-be-part-clinical-trial/potential-benefits-and-potential-risks>>.
- Australian Commission on Safety and Quality in Health Care (ACSQHC) 2014, *Health literacy: taking action to improve safety and quality*, ACSQHC, Sydney, viewed 18 February 2020, <<https://www.safetyandquality.gov.au/sites/default/files/migrated/Health-Literacy-Taking-action-to-improve-safety-and-quality.pdf>>.
- Australian Commission for Safety and Quality in Health Care (ACSQHC) 2015, *Credentialing health practitioners and defining their scope of clinical practice: a guide for managers and practitioners*, ACSQHC, Sydney, viewed 18 February 2020, <<https://www.safetyandquality.gov.au/publications-and-resources/resource-library/credentialing-health-practitioners-and-defining-their-scope-clinical-practice-guide-managers-and-practitioners>>.
- Australian Commission on Safety and Quality in Health Care (ACSQHC) 2017, *National Safety and Quality Health Service Standards guide for hospitals*, ACSQHC, Sydney, viewed 18 February 2020, <<https://www.safetyandquality.gov.au/wp-content/uploads/2017/12/National-Safety-and-Quality-Health-Service-Standards-Guide-for-Hospitals.pdf>>.
- Australian Commission on Safety and Quality in Health Care (ACSQHC) 2019a, *Person-centred care*, ACSQHC, Sydney, viewed 15 May 2020, <<https://www.safetyandquality.gov.au/our-work/partnering-consumers/person-centred-care>>.
- Australian Commission on Safety and Quality in Health Care (ACSQHC) 2019b, *Australian Hospital Patient Experience Question Set*, ACSQHC, Sydney, viewed 25 March 2020, <<https://www.safetyandquality.gov.au/our-work/indicators-measurement-and-reporting/australian-hospital-patient-experience-question-set>>.
- Australian Commission for Safety and Quality in Health Care (ACSQHC) 2020, *'NSQHS Standards user guide for medication management in cancer care'*, ACSQHC, Sydney, viewed 16 April 2020, <<https://www.safetyandquality.gov.au/publications-and-resources/resource-library/nsqhs-standards-user-guide-medication-management-cancer-care>>.
- Australian Health Ministers' Advisory Council (AHMAC) 2011, *A national framework for advance care directives*, Council of Australian Governments Health Council, Adelaide, viewed 22 July 2019, <http://www.coaghealthcouncil.gov.au/Portals/0/A%20National%20Framework%20for%20Advance%20Care%20Directives_September%202011.pdf>.
- Australian Institute of Health and Welfare (AIHW) 2016, *Australia's health 2016*, Australia's health series no. 15. Cat. no. AUS 199, AIHW, Canberra.

- Australian Institute of Health and Welfare (AIHW) 2017, *Access to health services by Australians with disability*, viewed 20 February 2020, <<https://www.aihw.gov.au/reports/disability/access-health-services-disability/contents/content>>.
- Australian Institute of Health and Welfare (AIHW) 2018, *Australia's health 2018*, Australia's health series no. 16. Cat. no. AUS 221, AIHW, Canberra.
- AYA Cancer Fertility Preservation Guidance Working Group 2014, *Fertility preservation for AYAs diagnosed with cancer: guidance for health professionals*, Cancer Council Australia, Sydney, viewed 20 July 2020, <https://wiki.cancer.org.au/australia/COSA:AYA_cancer_fertility_preservation/Introduction>.
- Cancer Australia 2015, *National Aboriginal and Torres Strait Islander cancer framework*, Cancer Australia, Surry Hills, viewed 24 August 2017, <<https://www.canceraustralia.gov.au/publications-and-resources/cancer-australia-publications/national-aboriginal-and-torres-strait-islander-cancer-framework>>.
- Cancer Australia 2019a, *Principles of multidisciplinary care*, Australian Government, Sydney, viewed 18 July 2019, <https://canceraustralia.gov.au/system/tdf/guidelines/all_about_multidisciplinary_care.pdf?file=1&type=node&id=3551>.
- Cancer Australia 2019b, 'Cancer incidence', viewed 18 February 2020, <<https://ncci.canceraustralia.gov.au/diagnosis/cancer-incidence/cancer-incidence>>.
- Cancer Australia 2020, *Cancer care in the time of COVID-19: a conceptual framework for the management of cancer during a pandemic*, Australian Government, Sydney, viewed 3 September 2020, <<https://www.canceraustralia.gov.au/publications-and-resources/cancer-australia-publications/cancer-care-time-covid-19-conceptual-framework-management-cancer-during-pandemic>>.
- Cancer Council Australia 2018, 'Prevention', Cancer Council Australia, Sydney, viewed 18 July 2019, <<https://www.cancer.org.au/preventing-cancer/>>.
- Cancer Council Australia Keratinocyte Cancers Guideline Working Party 2019, 'Practical guidelines for keratinocyte cancer', Cancer Council Australia, Sydney, viewed 10 February 2020, <https://wiki.cancer.org.au/australia/Guidelines:Keratinocyte_carcinoma?_ga=2.176124642.1598381561.1581308829-977279926.1563328782>.
- Cancer Council Australia 2019, 'Complementary and alternative therapies', Cancer Council Australia, Sydney, viewed 22 July 2019, <<https://www.cancer.org.au/about-cancer/treatment/complementary-therapies-and-cancer.html>>.
- Cancer Council Victoria 2019, 'Palliative care', Cancer Council Victoria, viewed 7 October 2019, <https://www.cancervic.org.au/cancer-information/treatments/treatments-types/palliative_care/palliative-care-treatment.html>.
- Cancer Research in Primary Care 2016, *Principles statement: Shared care*, PC4 Shared Care Working Group, Melbourne, viewed 4 October 2019, <<http://pc4tg.com.au/wp-content/uploads/2016/07/PC4-Principles-Statement-shared-care-2016-1.pdf>>.
- Chen L, Aria AB, Silapunt S, Migden MR 2019, 'Emerging nonsurgical therapies for locally advanced and metastatic nonmelanoma skin cancer', *Dermatologic Surgery*, vol. 45, no. 1, pp. 1–16.
- Clarke P 2012, 'Nonmelanoma skin cancers treatment options', *Australian Family Physician*, vol. 14, no. 7, p. 476.
- Clinical Oncology Society of Australia (COSA) 2013, Special Issue: COSA's 40th Annual Scientific Meeting, Cancer Care Coming of Age, 12–14 November 2013, Adelaide Convention Centre, *Asia-Pacific Journal of Clinical Oncology*, vol. 9, no. 3, pp. 61–98.

- Clinical Oncology Society of Australia (COSA) 2014, *Psychosocial management of AYAs diagnosed with cancer: guidance for health professionals*, COSA, Sydney, viewed 7 October 2019, <http://wiki.cancer.org.au/australia/COSA:Psychosocial_management_of_AYA_cancer_patients>.
- Clinical Oncology Society of Australia (COSA) 2015, *Cancer care coordinator: position statement*, COSA, Sydney, viewed 22 July 2019, <https://www.cosa.org.au/media/332296/cancer-care-coordinator-position-statement_final-endorsed-by-council_161115_cnsa-logo.pdf>.
- Clinical Oncology Society of Australia (COSA) 2016, *Australasian tele-trial model: access to clinical trials closer to home using tele-health a national guide for implementation*, v1.7, COSA, Sydney, viewed 18 July 2019, <<https://www.cosa.org.au/media/332325/cosa-teletrial-model-final-19sep16.pdf>>.
- Clinical Oncology Society of Australia (COSA) 2018, *COSA position statement on exercise in cancer care*, COSA, Sydney, viewed 22 July 2019, <<https://www.cosa.org.au/media/332488/cosa-position-statement-v4-web-final.pdf>>.
- Commonwealth Department of Health 2017, *Out-of-pocket expenses for private medical treatment (informed financial consent)*, Commonwealth of Australia, Canberra.
- Cormie P, Atkinson M, Bucci L, Cust A, Eakin E, Hayes S, et al. 2018, 'Clinical Oncology Society of Australia position statement on exercise in cancer care', *Medical Journal of Australia*, vol. 209, no. 4, pp. 184–187.
- Cormie P, Zopf EM, Zhang X, Schmitz KH 2017, 'The impact of exercise on cancer mortality, recurrence, and treatment-related adverse effects', *Epidemiologic Reviews*, vol. 39, no. 1, pp. 71–92.
- Decoster L, Van Puyvelde K, Mohile S, Wedding U, Basso U, Colloca G, et al. 2015, 'Screening tools for multidimensional health problems warranting a geriatric assessment in older cancer patients: an update on SIOG recommendations', *Annals of Oncology*, vol. 26, no.1, pp. 288–300.
- Dusingize J, Olsen C, Pandeya N, Subramaniam, Thompson B, Neale R et al. 2017, 'Cigarette Smoking and the Risks of Basal Cell Carcinoma and Squamous Cell Carcinoma' *The Journal of Investigative Dermatology*, vol. 137, no. 8, pp. 1700-1708.
- Emery J 2014, 'Cancer survivorship – the role of the GP', *Australian Family Physician*, vol. 43, no. 8, pp. 521–525.
- eviQ 2019, 'Safe handling and waste management of hazardous drugs', Cancer Institute NSW, Sydney, viewed 22 July 2019, <<https://www.eviq.org.au/clinical-resources/administration-of-antineoplastic-drugs/188-safe-handling-and-waste-management-of-hazardou>>.
- Fahradyan A, Howell AC, Wolfswinkel EM, Tsuha M, Sheth P, Wong AK 2017, 'Updates on the management of non-melanoma skin cancer (NMSC)', *Healthcare*, vol. 5, no. 4, p. 82.
- Ferrari A, Thomas D, Franklin A, Hayes-Lattin B, Mascarin M, van der Graaf W, et al. 2010, 'Starting an adolescent and young adult program: some success stories and some obstacles to overcome', *Journal of Clinical Oncology*, vol. 28, no. 32, pp. 4850–4857.
- Fitch M 2000, 'Supportive care for cancer patients', *Hospital Quarterly*, vol. 3, no. 4, pp. 39–46.
- Fitch MI 2008, 'Supportive care framework', *Canadian Oncology Nursing Journal*, vol. 18, no. 1, pp. 6–14.
- Fransen M, Karahalios A, Sharma N, English DR, Giles GG, Sinclair RD 2012, 'Non-melanoma skin care in Australia', *Medical Journal of Australia*, vol. 197, no. 10, pp. 565–568.

- Gilligan T, Coyle N, Frankel RM, Berry DL, Bohlke K, Epstein, RM, et al. 2017, 'Patient-clinician communication: American Society of Clinical Oncology consensus guideline', *Journal of Clinical Oncology*, vol. 35, no. 31, pp. 3618–3623.
- Hack TF, Reuther DJ, Weir LM, Grenier D, Degner LF 2012, 'Promoting consultation recording practice in oncology: identification of critical implementation factors and determination of patient benefit', *Psycho-Oncology*, vol. 22, pp. 1273–1282.
- Haines IE 2011, 'Managing patients with advanced cancer: the benefits of early referral for palliative care', *Medical Journal of Australia*, vol. 194, no. 3, pp. 107–108.
- Hayes SC, Newton RU, Spence RR, Galvao DA 2019, 'The Exercise and Sports Science Australia position statement: exercise medicine in cancer management', *Journal of Science and Medicine in Sport*, vol. 22, no. 11, pp. 1175–1199.
- Iannacone MR, Wang W, Stockwell HG, O'Rourke K, Giuliano AR, Sondak VK, et al. 2012, 'Patterns and timing of sunlight exposure and risk of basal cell and squamous cell carcinomas of the skin – a case-control study', *BMC Cancer*, vol. 12, p. 417.
- Jefford M, Ward AC, Lisy K, Lacey K, Emery JD, Glaser AW, et al. 2017, 'Patient-reported outcomes in cancer survivors: a population-wide cross-sectional study', *Support Care Cancer*, no. 10, pp. 3171–3179.
- Laidsaar-Powell R, Butow P, Boyle F, Juraskova 2018a, 'Facilitating collaborative and effective family involvement in the cancer setting: guidelines for clinicians (TRIO guidelines-1)', *Patient Education and Counseling*, vol. 101, no. 6, pp. 970–982.
- Laidsaar-Powell R, Butow P, Boyle F, Juraskova 2018b, 'Managing challenging interactions with family caregivers in the cancer setting: guidelines for clinicians (TRIO guidelines-2)', *Patient Education and Counseling*, vol. 101, no. 6, pp. 983–994.
- Leiter U & Garbe C 2008, 'Epidemiology of melanoma and nonmelanoma skin cancer: the role of sunlight', *Advances in Experimental Medicine and Biology*, vol. 624, pp. 89–103.
- Matthey-Giè M, Boubaker A, Letovanec I, Demartines N, Matter M 2013, 'Sentinel lymph node biopsy in nonmelanoma skin cancer patients', *Journal of Skin Cancer*, vol. 2013.
- Monterosso L, Platt V, Bulsara M, Berg M 2019, 'Systematic review and meta-analysis of patient reported outcomes for nurse-led models of survivorship care for adult cancer patients', *Cancer Treatment Reviews Journal*, no. 73, pp. 62–72.
- My Health Record 2019, 'What is My Health Record?' Australian Government, Sydney, viewed 17 December 2019, <<https://www.myhealthrecord.gov.au/for-you-your-family/what-is-my-health-record>>.
- National Cancer Institute (NCI) 2020, 'Genetics of skin cancer (PDQ) – health professional version', viewed 12 February 2020, <https://www.cancer.gov/types/skin/hp/skin-genetics-pdq#_23_toc>.
- National Disability Insurance Agency 2018, 'How the NDIS works', NDIS, Canberra, viewed 3 June 2019, <<https://www.ndis.gov.au/understanding/how-ndis-works>>.
- National Health and Medical Research Council (NHMRC) 2013, *Personalised medicine and genetics*, viewed 3 June 2019, <<https://www.nhmrc.gov.au/about-us/publications/personalised-medicine-and-genetics>>.
- National Health and Medical Research Council (NHMRC) 2014, *Talking with your patients about complementary medicine: a resource for clinicians*, NHMRC, Canberra, viewed 18 February 2020, <<https://www.caresearch.com.au/caresearch/ClinicalPractice/PatientConsiderations/ComplementaryTherapies/tabid/1258/Default.aspx>>.

Ong ELH, Goldacre R, Hoang U, Sinclair R, Goldacre M 2014, 'Subsequent primary malignancies in patients with nonmelanoma skin cancer in England: a national record-linkage study', *Cancer Epidemiology, Biomarkers & Prevention*, vol. 23, no. 3, pp. 490–498.

palliAGED 2018, 'Needs Assessment', Flinders University, Bedford Park, viewed 1 October 2019, <<https://www.palliaged.com.au/tabid/4879/Default.aspx>>.

Palliative Care Australia 2018, *National Palliative Care Standards*, 5th edn, Palliative Care Australia, Canberra, viewed 24 July 2019, <http://palliativecare.org.au/wp-content/uploads/dlm_uploads/2018/11/PalliativeCare-National-Standards-2018_Nov-web.pdf>.

Palliative Care Victoria 2019, 'Spiritual care', Palliative Care Victoria, Melbourne, viewed 22 July 2019, <<https://www.pallcarevic.asn.au/healthcare-professionals/about-palliative-care/care/spiritual-care/>>.

Peter MacCallum Cancer Centre 2019, *Community support organisations' cancer survivorship care consensus statement*, viewed 10 February 2020, <https://www.petermac.org/sites/default/files/media-uploads/NGO_ConsensusStatement.pdf>.

Queensland Health 2015, *Sad news sorry business: guidelines for caring for Aboriginal and Torres Strait Islander people through death and dying*, State Government of Queensland, Brisbane, viewed 22 July 2019, <https://www.health.qld.gov.au/__data/assets/pdf_file/0023/151736/sorry_business.pdf>.

Silver JK, Baima J 2013, 'Cancer prehabilitation: an opportunity to decrease treatment-related morbidity, increase cancer treatment options, and improve physical and psychological health outcomes', *American Journal of Physical Medicine & Rehabilitation*, vol. 92, no. 8, pp. 715–727.

Silver JK 2015, 'Cancer prehabilitation and its role in improving health outcomes and reducing health care costs', *Seminars in Oncology Nursing*, vol. 31, no. 1, pp. 1–3.

Sjoquist K, Zalcborg J 2013, 'Clinical trials – advancing cancer care', *Cancer Forum*, vol. 37, no. 1, pp. 80–88.

Smith A, Bellizzi K, Keegan T, Zebrack B, Chen V, Neale A, et al. 2013, 'Health-related quality of life of adolescent and young adult patients with cancer in the United States: the Adolescent and Young Adult Health Outcomes and Patient Experience Study', *Journal of Clinical Oncology*, vol. 31, no. 17, pp. 2136–2145.

Smith S, Case L, Waterhouse K, Pettitt N, Beddard L, Oldham J, et al. 2012, *A blueprint of care for teenagers and young adults with cancer*, Teenage Cancer Trust, Manchester, UK.

Steer B, Marx G, Singhal N, McJannett M, Goldstein D, Prowse R 2009, 'Cancer in older people: a tale of two disciplines', *Internal Medicine Journal*, vol. 39, pp. 771–775.

Temel J, Greer J, Muzikansky A, Gallagher E, Admane S, Jackson V 2010, 'Early palliative care for patients with non-metastatic non-small cell lung cancer', *New England Journal of Medicine*, vol. 363, no. 8, pp. 733–742.

Vardy JL, Raymond JC, Koczwara B, Lisy K, Cohn RJ, Joske D, et al. 2019, 'Clinical Oncology Society of Australia position statement on cancer survivorship care', *Australian Journal of General Practice*, vol. 48, no.12, pp. 833–836.

Whiteman DC, Neale RE, Aitken J, Gordon L, Green AC, Janda M, Olsen C, Soyer P, on behalf of the Sunscreen Summit Policy Group 2019, 'When to apply sunscreen: a consensus statement for Australia and New Zealand', *Australian and New Zealand of Public Health*, vol. 43, no. 2, pp. 171–175.

Wildiers H, Heeren P, Puts M, Topinkova E, Maryska LG, Janssen-Heijnen MLG, et al. 2014, 'International Society of Geriatric Oncology Consensus on geriatric assessment in older patients with cancer', *Journal of Clinical Oncology*, vol. 32, no. 24, pp. 2595–2603.

World Health Organization (WHO) 2018, 'Malnutrition', WHO, Geneva, viewed 18 July 2019, <<https://www.who.int/news-room/fact-sheets/detail/malnutrition>>.

Zimmermann C, Swami N, Krzyzanowska M, Hannon B, Leighl N, Oza A, et al. 2014, 'Early palliative care for patients with advanced cancer: a cluster-randomised controlled trial', *Lancet*, vol. 383, no. 9930, pp. 1721–1730.

