



The credentialling of cancer clinicians in Australia

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The University of Sydney
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Disclaimer

This document should be used as a guideline only. The document is designed to provide information to assist and promote discussion and to optimise the credentialling processes.

Periodic updates

New information arising in areas considered to be of importance will be posted periodically on the ACN website (www.cancer.org.au/acn).

Copies are available from the Australian Cancer Network website www.cancer.org.au/acn or email acn@cancer.org.au

This report was prepared by the Australian Cancer Network for The Cancer Council Australia

Authorship:

Michael Frommer^a MB BS, DObstRCOG, MPH, FAFPHM, FAFOM
Adjunct Professor
Director

Monique Heinke^a BSc(Hons I), PhD
Senior Research Officer

Michael Barton^b MB BS, FRANZCR
Conjoint Associate Professor
Research Director
Deputy Director, Radiation Oncology

^aSydney Health Projects Group
School of Public Health
The University of Sydney

^bCollaboration for Cancer Outcomes Research and Evaluation
Cancer Therapy Centre, Liverpool Hospital
Sydney South West Area Health Service and
University of New South Wales

Foreword

A critical part of the work of the Australian Council for Safety and Quality in Health Care is assisting health care organizations to ensure that care is provided only by qualified professionals whose performance is maintained at an acceptable level.

The Council's "National Standard for Credentialling and Defining the Scope of Clinical Practice" was endorsed by Health Ministers in July 2004. The standard and scope of practice handbook can be found on Council's website www.safetyandquality.org

The two reports produced for the Australian Cancer Network by the Sydney Health Projects Group of the University of Sydney lead by Professor Michael Frommer are the first examples of customisation of the national standard in order to focus on a particular and complex segment of the health system – namely cancer services.

The first of these reports, "The Credentialling of Cancer Clinicians in Australia" (August 2005) describes important aspects of credentialling and defining the scope of practice and interprets the National Standard for Cancer Service Clinicians.

The second report, the appendix, "Credentialling of Cancer Clinicians – A Guide for Australian Health Care Organisations" is essentially a "how to do it" template setting out sixteen practical steps to be followed when developing and implementing a local cancer credentialling system.

I am certain that these documents will be an extremely valuable resource for those who manage cancer services in Australia. On behalf of the Australian Cancer Network, I thank Prof Michael Frommer and his team for their enthusiasm and commitment in producing a great result from a difficult and complex project.

Bruce Barraclough AO
Chair, Australian Council for Safety and Quality in Health Care
Medical Director, Australian Cancer Network

Executive Summary

We were commissioned to examine methods and processes for credentialling clinicians who provide cancer services, and to develop a guide or 'template' that health-care organisations could use in credentialling cancer clinicians.

Cancer outcomes have improved markedly in Australia over the last 20 years. This improvement is largely attributable to earlier detection and better clinical management, which have followed from the uptake of new research-based knowledge and technological advances. However, knowledge and best practice are not uniformly applied, and the appropriateness and quality of clinical management vary for many cancers. A credentialling system is needed to minimise this variation and ensure that best practice is adopted as widely as possible.

In 2004, the Australian Council for Safety and Quality in Health Care published a *Standard for Credentialling and Defining the Scope of Clinical Practice*. This national standard provides an overall credentialling framework that applies to all medical practitioners working in public and private hospitals, including practitioners involved in the management of patients with cancer. However, it does not fulfil the specific credentialling requirements that are essential for developing and sustaining high-quality cancer services. These requirements reflect the characteristics that distinguish cancer from other conditions, distinguish cancer patients from other patients with serious illnesses, and distinguish cancer services from other clinical services.

In particular, there is a need to emphasise the responsibility of clinicians for ensuring that cancer patients receive high-quality, integrated multi-disciplinary care within an organised system of care that is set up to meet patients' needs. Cancer clinicians must have knowledge of the value of multi-disciplinary cancer services; they must demonstrate particular clinical skills but be aware of the boundaries of their expertise within the spectrum of multi-disciplinary care; and they must respect patients' roles in clinical decisions and facilitate and reinforce well-organised systems of care. Systems dedicated to the credentialling of cancer clinicians are important mechanisms for maintaining and enhancing the knowledge, clinical skills and practice behaviour that underpin optimal cancer care and outcomes.

At the end of this report, we attach the proposed guide, the purpose of which is to assist Australian health-care organisations, such as regional health services and hospitals, in the development and implementation of systems for the credentialling of clinicians involved in the care of cancer patients. It emphasises the role of credentialling in improving and sustaining the safety and quality of health services. It concentrates on the credentialling of medical practitioners involved in the care of cancer patients, but the principles and approaches that it sets out are applicable to all types of clinicians.

The guide accords with the definitions, policies and recommendations described in the national standard¹. It sets out 16 practical steps that can be followed sequentially in developing and implementing a local cancer credentialling system. These steps are as follows.

- 1 Allocate time and resources for the development of the credentialling system.
- 2 Identify and adopt standards of practice.
- 3 Set up a governance structure.
- 4 Develop institutional policies for credentialling.
- 5 Provide infrastructure for credentialling.
- 6 Assess local clinical need for cancer services.
- 7 Assess organisational capability for cancer services.
- 8 Develop data collections and data-collection systems.
- 9 Specify processes for the introduction of new procedures and treatments.
- 10 Verify the qualifications of cancer clinicians.
- 11 Verify cancer clinicians' professional standing, experience, skills and knowledge.
- 12 Define the cancer clinician's scope of practice.
- 13 Verify clinicians' involvement in continuing professional development.
- 14 Determine the frequency and processes of performance audit and review, and obtain clinicians' agreement to a performance review framework.
- 15 Carry out regular performance reviews.
- 16 Analyse performance data and inquire into and manage apparent deviations from standards of care.

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1 Introduction

1.1 Objectives and scope

We were commissioned by the Australian Cancer Network to examine methods and processes for credentialling clinicians who provide cancer services, and to develop a guide or ‘template’ that health-care organisations could use in credentialling the cancer clinicians whom they employ.

The intent of credentialling is to improve and sustain the safety and quality of health services. We designed the template to assist health-care organisations and clinicians in fulfilling that intent.

We based the template on the generic national standard for credentialling and defining the scope of clinical practice of medical practitioners¹, produced under the auspices of the Australian Council for Safety and Quality in Health Care (ACSQHC).

A *clinician* is any practitioner who is trained for and professionally involved in the care of patients. Clinicians include medical practitioners, nurses, allied health practitioners and psychologists. In this report, we concentrate on the credentialling of medical practitioners involved in the care of cancer patients, but the principles and approaches that we propose are applicable to all types of clinicians. For credentialling purposes, the definition of *clinician* includes pathologists who work in service laboratories examining and reporting on clinical specimens.

Credentialling is usually carried out by the employers of clinicians, such as public and private hospitals and regional health administrations that manage a number of public hospitals and community-based services. *Employment* can be interpreted broadly to include not only the traditional salaried engagement of a practitioner, but also the contractual relationship between a public hospital and a visiting medical officer, or the agreement that gives a doctor admitting rights in a private hospital.

This report concentrates on credentialling that is carried out by an employer, but again, the principles and approaches that we propose could be applied by any organisation with a responsibility for or an interest in credentialling cancer clinicians. The potential exists for credentialling to be undertaken outside the context of a clinician’s employment.

Credentialling of independent private practitioners could be carried out by professional bodies (such as professional colleges), agencies that certify and register clinicians (such as State and Territory registration boards), and health-service funders (such as the Health Insurance Commission or private health-insurance companies).

The generic national standard was designed specifically to apply to the credentialling of medical practitioners who work in public and private hospitals. Cancer services are delivered in a wide range of hospital and community settings. The credentialling of cancer clinicians must therefore accommodate practice in many different types of settings.

1.2 Methods

In order to fulfil the objectives of this commission:

- A. We examined a wide range of major Australian framework, policy and planning documents on cancer services. In our review of the documents we concentrated on (i) safety and quality improvement in general, and (ii) specific points relevant to the development, implementation and management of credentialling processes.
- B. We studied the generic national standard for credentialling and defining the scope of clinical practice of medical practitioners, concentrating on the elements that have particular implications for the credentialling of cancer clinicians.
- C. We carried out an abbreviated search of national and international literature, seeking to identify existing guides for the credentialling of cancer clinicians.
- D. We consulted a small number of experts in different fields of oncology and medical practice.
- E. We synthesised the information and concepts from (A) to (E), and designed the credentialling template.

1.3 Structure of this report

In Chapter 2 of this report, we define and distinguish between *credentialling*, which focuses on individual practitioners, and *accreditation*, which is concerned with organisations that deliver clinical services. We link credentialling with *defining the scope of clinical practice* (synonymous with *delineation of clinical privileges* or *privileging*). We then explain why credentialling is essential for the safety and quality of all types of health services, and describe the principles and components of a credentialling system.

In Chapter 3, we describe the nature of cancer and cancer services, and identify the aspects relevant to credentialling.

In Chapter 4, we describe the components of a credentialling system for cancer clinicians and identify options for their employers. The components include indicators to be used in structured performance reviews of cancer clinicians, and processes that employers can use

in aggregating performance review data to produce summary information on the performance of clinical departments that deliver cancer services.

In the Appendix we propose a template designed to aid the employers of cancer clinicians in the introduction and management of credentialling systems.

1.4 Why a cancer credentialling system is needed

There are three main determinants of cancer outcomes: (i) patient characteristics (which include age, general health, co-morbidities, and treatment preferences); (ii) tumour characteristics (i.e. the sites and organs affected, pathology, and stage of disease at the time of presentation); and (iii) the appropriateness and quality of clinical management. Cancer outcomes have improved markedly in Australia over the last 20 years, with relative survival increasing by at least one percent per annum.² This improvement is largely attributable to earlier diagnosis and better clinical management, which have followed from the uptake of new research-based knowledge and technological advances. However, knowledge and best practice are not uniformly applied, and the appropriateness and quality of clinical management vary for many cancers.³ A credentialling system is needed to minimise this variation and ensure that best practice is adopted as widely as possible.

The generic national standard provides an overall credentialling framework that applies to all medical practitioners working in public and private hospitals, including practitioners involved in the management of patients with cancer. However, because it is generic, it does not fulfil the specific credentialling requirements that are essential for developing and sustaining high-quality cancer services. These requirements reflect the characteristics that distinguish cancer from other conditions, distinguish cancer patients from other patients with serious illnesses, and distinguish cancer services from other clinical services. Collectively, the credentialling requirements for cancer clinicians are unique to cancer, but many of the individual requirements are analogous to the credentialling requirements for clinicians working in other fields.

The generic national standard concentrates on the individual clinician and his or her performance in relation to a defined scope of practice. The most important aspects of cancer care that are not covered by the generic standard relate to the responsibility of clinicians for ensuring that patients receive high-quality integrated multi-disciplinary care within an organised system of care that is set up to meet patients' needs. Cancer clinicians must have knowledge of the value of multi-disciplinary cancer services; they must demonstrate particular clinical skills but be aware of the boundaries of their expertise within the spectrum of multi-disciplinary care; and their practice behaviour must respect patients' roles in clinical decisions and facilitate and reinforce well-organised systems of care. Only through cancer-specific credentialling is it possible to maintain and enhance the knowledge, clinical skills and practice behaviour that are essential for clinicians' active and consistent engagement with systems of cancer care.

2 Credentialling and related processes: definitions, concepts and systems

2.1 Definition of *credentialling*

The national standard for credentialling medical practitioners defines *credentialling* as:

‘...the formal process used to verify the qualifications, experience and professional standing and other relevant professional attributes for the purpose of forming a view about their competence, performance and professional suitability to provide safe, high quality health care services within specific organisational environments.’

Credentials are:

‘The qualifications, professional training, clinical experience, and training and experience in leadership, research, education, communication and teamwork that contribute to a medical practitioner’s competence, performance and professional suitability to provide safe, high quality health care services...a medical practitioner’s history of and current status with respect to professional registration, disciplinary actions, indemnity insurance and criminal record are regarded as relevant to their credentials.’

The national standard also defines the following terms that are incorporated in its definition of credentialling:

- ‘Competence. The demonstrated ability to provide health care services at an expected level of quality and safety.’
- ‘Medical practitioner. A person who is registered to practise medicine within the relevant State or Territory.’
- ‘Organisation. A public or private hospital or freestanding day procedure facility. The term includes a division or campus which is a component of a larger organisation but whose manager is responsible for credentialling and defining the scope of clinical practice of medical practitioners within a specific local environment.’
- ‘Performance. The extent to which a medical practitioner provides health care services in a manner which is consistent with known good practice and results in expected patient benefits.’

These definitions highlight five points.

- The purpose of credentialling is to ensure that practitioners provide safe, high-quality health services in accordance with known good practice and the achievement of expected patient benefits. It follows that credentialling processes should be designed solely to fulfil this purpose. They are not intended to fulfil other bureaucratic requirements for documentation, or to provide health-care institutions with mechanisms for the management of other professional and administrative difficulties. Separate processes are needed to manage these difficulties.

- Credentials reflect an individual practitioner’s professional capacity within the context of specific health–care environments.
- Credentials encompass the factors that contribute to a medical practitioner’s performance but do not include any assessment of actual performance. The process of *credentialling* goes further – it includes forming a view about clinicians’ performance.
- Credentialling processes take account of numerous attributes of candidate clinicians, including not only qualifications, but also skills, experience, and other qualities and attainments. They encompass leadership, research, education, communication and teamwork, as well as expertise in the direct clinical management of patients. They assess clinicians’ demonstrated ability as practitioners, rather than their assumed or theoretical capacity.
- Credentialling processes are carried out by and for individual health–care organisations, such as individual hospitals or groups of hospitals that belong to a larger health–care organisation.
- Credentialling processes assume that a candidate for credentialling fulfils the registration requirements of the professional registration board in the relevant State or Territory.

The national standard concentrates exclusively on credentialling for practice in public and private hospitals, including free–standing day–procedure facilities. Strictly, its provisions do not apply to community–based practice. However, the principles and processes that it sets out could easily be adapted for community settings.

2.2 Accreditation

Accreditation has been defined⁴ as:

‘a process of external peer review of an organisation’s processes and performance using defined standards with the aim of quality improvement.’

The national standard for credentialling notes that accreditation depends on two conditions:

‘an explicit definition of quality [criteria] (i.e. standards) and an independent review process aimed at identifying the level of congruence between practice and quality standards.’

As noted in section 1.1, accreditation refers to an organisation, while credentialling is concerned with individual practitioners. However, the concepts of credentialling and accreditation are inter–dependent. Criteria for accreditation often include the existence of proper credentialling policies and processes and their consistent application. Conversely, given that credentialling refers to the capacity of a practitioner to provide safe, high–quality health services within specific organisational environments, an effective credentialling process is likely to be sustainable only in an accredited health–care environment.

2.3 The scope of clinical practice and organisational capacity

The national standard states that:

'Defining the scope of clinical practice follows on from credentialling and involves delineating the extent of an individual medical practitioner's clinical practice within a particular organisation based on the individual's credentials, competence, performance and professional suitability, and the needs and capability of the organisation to support the medical practitioner's scope of clinical practice.'

The term *clinical privileges* is defined as:

'The authorised extent of an individual medical practitioner's clinical practice within a particular organisation...'

Thus the specification of clinical privileges is the end result of the process of defining the scope of clinical practice.

Delineation of clinical privileges and *clinical privileging* are often used as synonyms for defining the scope of clinical practice. In the national standard, the term *defining the scope of clinical practice* is preferred because:

'...the term "clinical privileging" creates an undesirable perception of a unilateral conferral of a benefit by an organisation...[while] the term "defining the scope of clinical practice"...suggests a strong, mutual relationship between the employing or contracting organisation and each medical practitioner, centred on the safety and quality of the health care services provided.'

The processes of credentialling and defining the scope of clinical practice overlap in that both involve a review of the same professional attributes and qualities of an individual. However, the process of defining the scope of clinical practice emphasises community and organisational need for particular services, as well as the capability of a health-care organisation to support these services.

The national standard defines 'organisational need' as:

'The extent to which an organisation requires the provision of a specific clinical service, procedure or other intervention in order to provide a balanced mix of safe, high quality health care services that meet consumer and community needs and aspirations.'

It defines 'organisational capability' as:

'An organisation's ability to provide the facilities and clinical and non-clinical support services necessary for the provision of safe, high quality clinical services, procedures or other interventions.'

Factors that influence organisational capability include infrastructure such as equipment and physical facilities and the capacity to maintain and operate equipment, the availability of skilled staff other than the credentialed individual (such as other professionals making up a multi-disciplinary team), capacity to manage clinical complications, and established pathways and systems for referral and follow-up.

2.4 Credentialling systems

As noted in section 1.1, credentialling is usually carried out in the context of a clinician's employment by a health-care organisation. As described in section 2.1, credentialling is carried out by and for individual health-care organisations.

It follows that health-care organisations are responsible for determining who is to be credentialed, how credentialling is to be done, what is to be credentialed, who is to carry out credentialling processes, and who is to be credentialed. This involves:

- developing policies and procedures for credentialling, linked to safety and quality-improvement systems;
- developing governance arrangements to lead and oversee credentialling;
- determining the clinical services that are needed, and linking these to the scope of practice of clinicians, with reference to both existing staff and recruitment;
- defining, by negotiation, the scope of practice for individual clinicians, with agreement on credentialling requirements that relate to the scope of practice;
- maintaining records that describe these commitments;
- compiling data to audit the performance of individual clinicians and the clinical units to which they contribute;
- using the data to monitor and report on the performance of individual clinicians and clinical units;
- maintaining records that contain these performance data; and
- examining and managing variations from expected performance.

A health-care organisation must be able to provide:

- The resources needed by clinicians to do their clinical work in a manner that enables them to fulfil credentialling requirements within their defined scope of practice. These resources include equipment, services and staff. For example, if a surgeon's credentials and scope of practice in a hospital encompass partial hepatectomy (e.g. for solitary metastases), the hospital must be able to provide the necessary operating-room equipment, nursing and technical services in the operating suite, blood-transfusion service, and post-operative intensive care.
- Governance capacity and infrastructure (such as information systems and support staff) for the management and conduct of the credentialling process itself.

The clinician being credentialled is responsible for:

- maintaining his or her professional registration;
- participating in appropriate continuing professional development;
- providing agreed documentation;
- specifying, by negotiation, his or her scope of practice, and working within the defined scope of practice;
- contributing data, as agreed, for use in auditing his or her performance;
- collaborating in the review of audit data at agreed intervals;
- explaining variations from expected performance; and
- abiding by the determinations of the health-care organisation with regard to re-credentialling and re-defining scope of practice.

To accommodate these responsibilities, a credentialling system has the following components, described in detail in the national standard.

1) Credentialling policies. These cover:

- initial credentialling and re-credentialling;
- verification of individual clinicians' credentials;
- indemnity insurance;
- short-term credentialling (e.g. of temporarily-employed clinicians, or in relation to major emergencies);
- the introduction of new clinical services, procedures or other interventions;
- data collection and analysis for audit purposes;
- communication with clinicians about credentialling and defining the scope of practice;
- circumstances in which a clinician's scope of practice may be altered;
- circumstances in which a clinician's services may be suspended; and
- appeals processes and processes for assisting clinicians to improve their performance.

2) Governance. The health-care organisation designates an individual or a group that has the authority to:

- develop or modify, and endorse, credentialling policies;
- lead and oversee processes for credentialling and defining the scope of services;
- monitor performance data; and
- manage variations from expected performance and other problems.

This authority may be delegated to an appropriate committee. Requirements for such a committee are:

- a formal constitution and explicit terms of reference;
- sufficient independence to review clinicians' performance;
- sufficient support to function effectively; and
- linkage to both the organisation's executive and its safety and quality-improvement mechanisms.

- 3) Mechanisms for assessing and reviewing clinical need. This refers to the need for specific clinical services, procedures or other interventions, taking account of benefits to patients, community needs, and the distribution of related services. Thus, for example, a hospital may not need to provide a particular high-level service if another hospital nearby provides that service. Clinical need is reviewed from time to time, and may change with advancing knowledge or technology, demographic shifts, and the changing distribution of related services.
- 4) Mechanisms for assuring organisational capability. This refers to the availability of facilities, infrastructure and clinical and non-clinical support services that are essential for the provision of specific clinical services, procedures or other interventions. Organisational capability must be reviewed on a regular basis and updated as required.
- 5) Recruitment processes. Essential selection criteria in the recruitment of clinicians specify the required credentials and scope of practice, taking account of clinical need and organisational capability.
- 6) Processes for credentialling the existing clinical workforce. When credentialling is first introduced, there is a need to develop policies and define processes for credentialling and delineating the scope of practice of the existing clinical workforce. Sensitive and comprehensive communication of these policies and processes to affected clinicians is obviously most important. Consideration should also be given to the steps required if clinical services, or indeed credentialling policies and processes themselves, change substantially in ways that affect the existing clinical workforce (e.g. as a consequence of the introduction of new technology).
- 7) Contracts of employment or engagement for individual clinicians. Contracts specify the employing organisation's and the clinician's responsibilities with respect to credentialling, organisational capability, scope of practice, performance audit requirements, details of re-credentialling processes, and processes to be followed if variations from expected performance occur.
- 8) Data collection and analysis systems. Data are collected on specified clinical services, procedures or other interventions, and on defined performance indicators (as discussed in Chapter 4 of this report). Data-collection systems can be designed to cause minimal disruption to busy clinicians. Under the provisions of existing privacy legislation and clinical quality-assurance legislation, the data can be collected and recorded with due regard for the privacy and confidentiality of patients and clinicians, and cannot be obtained under subpoena for use as evidence in a court of law. Data analysis is directed towards generating a summary of individual clinicians' performance with respect to:
 - the services that they provide and procedures and other interventions that they carry out;
 - the extent to which their clinical activity follows standards and recommended practice; and
 - selected outcomes.

- 9) Processes for the regular review of clinicians' adherence to agreed standards of practice and their performance. The review includes current professional registration, continuing professional development activities, and the results of analysis of audit data described above. It is conducted in consultation with individual clinicians, and may lead to either re-credentialling or a request for explanation of variations from expected practice.
- 10) Management of changes to the scope of practice, suspension, remediation and appeals processes. Credentialling systems include defined processes by which a clinician who does not provide a satisfactory explanation of variations from expected practice can have his or her scope of practice changed or can be suspended from practice altogether. Credentialling systems also include defined appeals processes. A clinician's scope of practice may also be changed if there is a change in clinical need or organisational capability, independent of the clinician's performance.

2.5 Situations in which credentialling is done

Credentialling is undertaken in five types of situations:

- 1) when clinicians are newly appointed to a health-care organisation;
- 2) when credentialling is introduced, covering clinicians who have been working in but have not previously been credentialled by the health-care organisation;
- 3) in the regular performance review of clinicians who have previously been credentialled within the health-care organisation (this is known as 're-credentialling');
- 4) when clinicians (who have previously been credentialled) seek or are required to change their roles in the health-care organisation; and
- 5) when clinicians (who have previously been credentialled) seek or are required to perform new procedures.

New appointments

For new appointments, credentialling is linked to recruitment processes. Organisational need and capacity dictate the required scope of practice. The job description and selection criteria reflect the scope of practice, and the selection criteria represent the credentials that the successful applicant must have. Qualifications and professional registration are verified with the relevant agencies. The competence and professional standing of the appointee are verified with previous employers and referees, and declared attainments such as research grants and publications are checked. Importantly, the new appointee must be inducted into the credentialling system, and be given a fair opportunity to negotiate the details of his or her scope of practice, requirements for performance monitoring, probationary period, and expectations with regard to re-credentialling (see below).

New credentialling systems

With increasing pressures to improve and account for clinical safety and quality, many health-care institutions are likely to introduce new credentialling systems or tighten existing systems. In many situations, new credentialling systems will have the potential to affect the professional standing or livelihood of the existing clinical workforce. At the very least, new systems are likely to impose a need for additional documentation and formal performance review. Like new appointees, existing staff who participate in a new credentialling system must be inducted into it and given a fair opportunity to negotiate the details of their scope of practice, requirements for performance monitoring, and expectations with regard to re-credentialling (see below).

Re-credentialling

Credentialling and defining the scope of practice usually refer to a fixed period of time, typically three to five years^{5,6}, after which the currency of clinician's credentials are re-checked and performance data (collected through audit processes) are assessed in the context of ongoing organisational need and capability and technological developments. Staff participating in the credentialling system must be aware of and prepared for re-credentialling requirements.

Changing roles

Credentialling processes are invoked when clinicians (who have previously been credentialled) seek or are required to change their roles in the health-care organisation. Clinicians may themselves seek to change their roles, e.g. limit practice to a particular field or concentrate on particular techniques for a variety of reasons, including the effect of advancing age on clinical skills. Health-care organisations may require clinicians to change their roles in response to changes in organisational need or capability, technological developments, or community need. Under these circumstances, credentialling agreements must be altered.

New procedures

A special case of role change arises when clinicians (who have previously been credentialled) seek or are required to perform new procedures or use new treatments. The new treatments may either be innovative and result from new technological developments, or they may be established treatments that are used elsewhere but have not previously been undertaken in the health-care organisation concerned. The new treatments may involve the use of new types of equipment, new operative techniques, or new drugs that have significant potential to cause harm and therefore demand special skills. General guidelines exist for the introduction of new procedures.⁷ Of course, the introduction of a new treatment should be preceded by evaluation, demonstration of community and organisational need for it, and confirmation of organisational capability to deliver it. Credentialling processes cover the capacity of individual clinicians to carry out the new treatment, including training and relevant experience, as well as arrangements for monitoring the volume of patients receiving the new treatment and the outcomes.

2.6 Principles of credentialling – summary

The definitions given in sections 2.1–2.3 and the implementation processes described in sections 2.4 and 2.5 underpin five general principles of credentialling:⁸

- I. Qualifications and skills: All staff with independent responsibility for patient care should have demonstrable, verified qualifications and skills appropriate to their roles and to the context in which care is delivered.
- II. Safety: Is the clinician qualified and competent, and are the necessary supports in place, to conduct the proposed practice?
- III. Fairness: Is the decision based on objective criteria of qualification, service support and service need? Has the clinician had a fair hearing?
- IV. Accountability: Are the credentialling system, its criteria and its decisions open to scrutiny? Is the system confidential and efficient?
- V. Interface with related policies: Is the credentialling system compatible with the requirements of the professional registration, performance review, equal employment opportunity, service planning, workforce planning, risk management and quality assurance?

3 Characteristics of cancer services relevant to credentialling

3.1 The nature of cancer and cancer services

The main distinguishing characteristics of cancer, cancer patients and cancer services are as follows.

- 1) *Cancer* refers to a very large number of different types of malignant conditions, each defined by the site or organ that it affects and its pathology. Overall, cancer is common, but it is not a singular disease entity. Different cancers vary greatly with regard to their presentation, clinical course and management. A relatively small number of cancers (colorectal, breast and prostate cancer, melanoma and lung cancer) together account for the majority (60 percent)⁹ of new cases of cancer in Australia.
- 2) Many cancers are life-threatening. Cancer treatments often have extensive and unpleasant side effects, and prognosis is often uncertain. Consequently a diagnosis of cancer almost invariably causes great anxiety and stress for patients and others close to them. Although some cancers have a rapidly-fatal course, some 60 percent¹⁰ of new cases of cancer are now cured. Today, many serious cancers are managed as chronic diseases, and treatment induces long periods of remission. Nevertheless, the concern associated with a diagnosis of cancer is often greater than that associated with other chronic diseases which have a similar or worse prognosis, such as congestive heart failure.
- 3) Contemporary cancer management is intended to be patient-centred. Patient-centred care has two broad components: (i) designing care systems to ensure that they are oriented to the needs of the patient, rather than making the patient comply with the needs of health-care delivery organisations; and (ii) providing patients with information about their disease and actively involving them in treatment decisions.
- 4) The management of cancer involves a spectrum of services. These comprise prevention, screening and early detection, diagnosis and assessment, treatment of the primary tumour and of any local and distant spread, follow-up, treatment of recurrence, rehabilitation and palliative care. The major modalities of treatment are surgical, radiation and medical oncology, and treatment often involves two or all three of these modalities. Treatment also emphasises psychosocial support of cancer patients (psycho-oncology).
- 5) Cancer outcomes depend upon (i) patient characteristics (such as age, general health, co-morbidities and treatment preferences), (ii) tumour characteristics (sites and organs affected, pathology, and stage of disease at the time of presentation) and (iii) appropriateness and quality of clinical management. Management based on the best

available evidence has been shown to improve outcomes considerably, and as mentioned above, outcomes for many cancers are now very good.

- 6) The application of best practice depends upon: (i) well-organised service structures and systems for integrated multi-disciplinary management, emphasising defined referral and follow-up pathways among clinicians with expertise in the specific clinical fields needed to manage particular cancers;¹¹ (ii) the absorption of new research-based knowledge into recommendations for cancer management; and (iii) the application of up-to-date evidence-based guidelines and treatment recommendations and appropriately-endorsed standards at all points in the spectrum of cancer management.
- 7) Cancer management involves a wide range of clinicians with different professional backgrounds (medicine, nursing, allied health, and psychology). Some of these clinicians are specialists in the different treatment modalities, some have site- or system-specific expertise which may or may not be exclusively focused on oncology (e.g. breast or colorectal surgeons, haematologists, and breast or stoma nurses), and some are generalists whose involvement in cancer care is part of a broader professional role (e.g. general practitioners, anatomical pathologists, and palliative care physicians and nurses).
- 8) Cancer often presents in ways that enable clinicians to take a planned approach to diagnosis, assessment and management, involving patients in management decisions. However, cancer can sometimes present as a medical or surgical emergency (e.g. colorectal cancer causing an acute bowel obstruction, or a cerebral glioma causing a rapid increase in intracranial pressure); or it can be an unexpected finding during an elective procedure (e.g. cancer of the uterus diagnosed at an elective hysterectomy for suspected benign dysfunctional uterine haemorrhage). These situations can place pressure on clinicians to make vital treatment decisions in less-than-ideal circumstances.
- 9) The treatment of cancer by any of the three major modalities can be associated with serious complications (e.g. severe neutropenia associated with certain chemotherapeutic agents, leading to potentially life-threatening sepsis). Competent treatment includes knowledge of these complications and a capacity to monitor for, recognise and manage them.
- 10) Enrolment in clinical trials is an essential component of high-quality cancer care. Two points underpin the value of clinical trials. First, clinical trials contribute to the creation and updating of evidence on best practice. Second, cancer patients who participate in clinical trials, and those who are treated in centres that are involved in clinical trials, have better outcomes.^{12,13}

The 10 points listed above have implications that determine the issues to be covered in the credentialling of cancer clinicians and influence the process of cancer credentialling. These implications are examined in sections 3.2 to 3.6.

3.2 General implications for cancer credentialling

Systems for credentialling cancer clinicians must:

- Be dynamic, flexible, and able to adapt to new knowledge on the management of cancer and new technology. Thus, credentialling systems can serve as a vehicle for promoting the uptake of new knowledge and new technology, leading to improvements in practice.
- Encompass a wide range of specialists and generalist clinicians treating cancer patients who have different tumours at different stages and different needs.
- Cover both the technical aspects of cancer management and the delivery of patient-centred integrated multi-disciplinary care. As noted in section 1.4, cancer clinicians must have knowledge of the value of multi-disciplinary cancer services; they must demonstrate particular clinical skills but be aware of the boundaries of their expertise within the spectrum of multi-disciplinary care; and their practice behaviour must reflect an orientation to patient-centred care, respect patients' roles in decision-making, and facilitate and reinforce well-organised systems of care.
- Reinforce evidence-based best practice.

3.3 Caseload and specialisation

In section 3.1, points (5) and (6), we drew attention to factors that influence cancer outcomes, including the following:

- appropriateness and quality of clinical management; and
- well-organised service structures and systems for integrated multi-disciplinary management, emphasising defined referral and follow-up pathways among clinicians with expertise in the specific clinical fields needed to manage particular cancers.

These points raise questions about the caseload and degree of specialisation of cancer clinicians. Can clinicians who have a low caseload achieve outcomes that are equivalent to those of clinicians who have a high caseload? Can generalists achieve outcomes that are equivalent to those of specialists? How can credentialling systems accommodate clinicians with widely differing caseloads and degrees of specialisation? How can credentialling systems contribute to the safety and quality of care in regional and rural settings where the absolute number of cancer patients is relatively low?

Caseload and degree of specialisation are important issues in the credentialling of cancer clinicians. With regard to cancer, *caseload* (or *volume*) refers to the number of patients treated with a particular type of cancer, or the number of procedures of a particular type that are undertaken, in a given time period. A distinction must be made between *institutional caseload* (e.g. for a hospital) and *provider caseload* (e.g. for an individual

surgeon). Thus, an individual cancer clinician may have a low caseload yet work in a hospital that has a high caseload.

Several factors influence caseload. These include:

- The extent and homogeneity (or heterogeneity) of a clinician's workload. A cancer clinician with a highly specialised practice is likely to manage many patients with similar types of conditions, and hence will obviously have a high caseload of specific types of cancer. Conversely, a clinician with a heterogeneous practice (e.g. a general surgeon) is likely to have a low caseload of specific types of cancer, even if he or she treats a large number of patients overall.
- Metropolitan versus regional or rural practice. In regional and rural settings, the caseload of even the more common cancers can be quite small.
- The frequency of a particular cancer. Clinicians who manage very uncommon cancers (e.g. soft-tissue sarcomas) will obviously have a relatively low caseload of these cancers, even in major centres.
- The institutional setting. Related to the last point, only those clinicians who work in specialised institutions have relatively large caseloads of uncommon cancers (e.g. paediatric haematological malignancies, which are concentrated in paediatric tertiary-referral centres). It is also noteworthy that some clinicians may have a large caseload overall, but divide their work among several institutions, and thus have a small caseload in each institution.

Caseload is often taken as a criterion for credentialling, and data on caseload are used or interpreted in several ways.

- Caseload is likely to be a valid indicator of the extent of a clinician's current or recent clinical experience.
- The caseload of patients with specific conditions, or the volume of specific procedures, is sometimes interpreted as reflecting a clinician's degree of specialisation and/or expertise (e.g. a haematologist-oncologist who treats a relatively large absolute number of patients with myeloma). In this way, caseload may be taken as a surrogate for quality. However, its validity as an indicator of quality is likely to depend on additional clinical process and outcome data.
- Caseload may also be used as a denominator for estimating rates of specific processes and outcomes. These rates may also be used as credentialling criteria (e.g. the proportion of breast cancer patients referred for specialist psycho-oncology services).

The clinical activity that makes up a clinician's caseload can be classified by anatomical site, disease type, and procedure type. Sometimes the anatomical site or procedure type may be more important in determining a clinician's technical expertise than the disease type. Thus, cancer caseload may not always be the most important determinant of a clinician's technical expertise in cancer management. For example, a colorectal surgeon (i.e. a clinician with anatomical and procedural expertise) may have a high caseload of sphincter-preserving low rectal resections. But the surgeon's caseload may comprise a mixture of rectal cancer patients and patients with severe inflammatory bowel disease. For those aspects of cancer credentialling that relate to technical expertise, the surgeon's caseload of procedures for

cancer may be less important than his or her total caseload of patients undergoing low sphincter-preserving procedures. Of course, the surgeon's cancer caseload is important for other aspects of cancer credentialling, e.g. those that relate to knowledge, cognition and practice behaviour.

The specialised nature of many aspects of cancer care and the need for access to multi-disciplinary expertise inevitably favour the concentration of cancer services in major centres. In general, research indicates that high institutional and high provider caseloads are associated with better outcomes.^{11,14} However, high institutional and high provider caseloads are managed in settings where providers usually have high levels of specialisation, and studies of patients with colorectal cancer suggest that specialisation may be more important than caseload *per se* for the outcomes of surgical procedures.^{15,16} But specialisation may reflect training rather than concentration on a particular type of clinical problem. Appropriate training appears to enable surgeons who undertake specialised procedures in provincial centres to achieve complication rates similar to those in specialised surgical units.¹⁷

Caseload and specialisation must be considered in the context of their practical implications. Intuitively it seems unlikely that the good outcomes attributed to caseload are due simply to the number of patients treated. The good outcomes are more likely to be due to the fact that clinicians with high caseloads work in institutions that have high caseloads; and that such institutions are well-organised and well-equipped to deal with the particular conditions that make up their caseloads. Clinicians with high caseloads are likely to have an interest in these conditions, attend seminars and conferences about them, read research reports about them, and indeed contribute to the research. They are thus likely to have high levels of up-to-date knowledge and ensure that their patients receive appropriate care (e.g. adjuvant therapy).

In general, the relationship between specialisation and/or caseload on the one hand, and outcomes (especially procedure outcomes) on the other, are likely to be influenced by:

- the relevant experience and training of the provider, not only in the procedure under consideration but also in similar types of procedures or other procedures on the same anatomical structures;
- institutional characteristics such as infrastructure, equipment and processes of care;
- the availability of multi-disciplinary expertise and support; and
- patient characteristics and the appropriateness of patient selection for the procedure.¹⁸

These factors may often co-exist in determining outcomes.

Given the distribution of the Australian population, it is essential to ensure that cancer patients have access to safe, high-quality services outside the major specialised cancer centres. In this connection, two situations must be considered.

- The first is patient election. Well-informed cancer patients living in regional and rural areas may choose to be treated locally rather than travel to a major centre. Even in urban areas, cancer patients may bypass major centres and seek treatment in smaller centres.¹⁹

- The second is the management of acute or unexpected problems, as described in section 3.1, point (8).

These situations represent two aspects of the challenge of promoting the delivery of safe, high-quality services by clinicians with low cancer caseloads. Effective credentialling is especially important in such situations. Credentialling systems and processes must be designed in such a way that they do not create insuperable barriers for clinicians who can be supported to provide safe, high-quality care with relatively small cancer caseloads. The maintenance of a capacity for safe and appropriate cancer management in country areas is a major challenge for credentialling. If caseload benchmarks that are not attainable in country areas are applied bluntly, many skilled clinicians could be driven out of rural practice altogether. This would not only affect access to cancer services, but could reduce the availability of a broad range of acute services for conditions other than cancer (e.g. general surgery). It is essential to develop credentialling as a mechanism for improving care and improving access to good care. This means developing systems and processes that ensure the appropriateness and quality of services provided by clinicians with small cancer caseloads.

It is clear that credentialling processes must accommodate clinicians with different levels of specialisation; clinicians with cancer caseloads of varying magnitude; and clinicians who manage or encounter cancer patients in the city and the country. In keeping with the overall objectives of cancer management, clinicians with relatively small cancer caseloads and/or those working in settings away from major centres could be required to demonstrate that they:

- have the technical skills to carry out those aspects of cancer care that they choose to undertake, and to do so safely and competently;
- adhere to the principles of patient-centred care, especially ensuring that patients understand the advantages and disadvantages of local care versus care in a (possibly distant) specialised centre and can make informed choices without pressure or coercion;
- have the capacity to recognise and carry out at least the initial management of any complications that may arise;
- have connections and established communication pathways with specialists and/or specialised cancer units in major centres, for the purposes of continuing education, clinical advice, and 'fast-track' referral;
- follow evidence-based best practice, or at least show that they follow the treatment recommendations of specialised cancer units;
- are integrated with a multi-disciplinary care system, to which they refer patients appropriately; and
- are linked with processes for regular review of their performance.

3.4 Provision of patient-centred care

Patient-centred care (described in section 3.1, item (3)) is now an axiom of cancer management. Nevertheless, the absence or variable provision of patient-centredness is a frequent complaint of many cancer patients and cancer-support groups.

Credentiailling represents an opportunity to promote patient-centredness in individual clinicians' practice. This could be achieved by the following means.

- At the time of initial credentialling, newly-appointed and existing clinicians could be asked to ensure that, in the organisation of their practice and in their practice behaviour, they recognise, anticipate, respect and respond to individual patients' needs. A list of possible issues to be covered in achieving this could be provided as a guide. It might include points such as the following.
 - Accessibility: minimal delay for appointments; access for telephone advice in business hours and out of hours; availability of alternate clinician if the credentialled clinician is unavailable.
 - Provision of information: adequate time in appointments; comprehensive information on the disease and its course, how cancer services work, the multi-disciplinary team, and treatment choices (what, when, where, by whom); advice on where to get additional information; how to contact patient support groups.
 - Patient choice: assistance with making choices; readiness to respect the patient's choices even if they are not in accordance with the clinician's decisions; referral options; ready acceptance of the patient's decision to choose another clinician; acknowledgement of the patient's right to change his or her mind about any aspect of treatment.
 - Navigation: ensuring that the patient has follow-up appointments with others in the team, knows where to go, and knows what to expect; clinical data are passed on to other clinicians who are involved in the patient's care.
 - Family and social context: encouragement of patient to bring a family member or other support person to appointments where critical management decisions will be discussed or made; accessibility to patients' family members or other support persons (with the patient's consent) for information and advice.
 - Clinic or private rooms staff: staff are briefed on the elements of patient-centred care for cancer patients, and are sensitive and responsive to patients' needs; staff facilitate patients' access to the clinician.
 - Complaints: documentation of any substantive complaints about deficiencies in patient-centredness of care.
- At the time of re-credentialling, clinicians could be required to report on the points listed above. They could also be encouraged to report on any novel ways in which they have enhanced patient-centred care.

For cancer clinicians working in rural settings, an important part of patient-centred care is the provision of full information on the advantages and disadvantages of cancer management in a local service versus referral to a larger metropolitan cancer service (as described in section 3.2).

3.5 Referral pathways and processes

As described in section 3.1, point (4), the management of cancer involves a spectrum of services and a number of treatment modalities. Patients are invariably managed by a number of different clinicians during their ‘cancer journey’ (i.e. the experience of the entire course of their disease and its treatment). The various clinicians involved often have differing spheres of expertise and perspectives. This requires coordination with clear referral pathways and processes – crucial elements in any well-organised system of cancer care. In the absence of proper referral processes, miscommunication is likely to occur, leading to fragmentation of care, inconsistencies in advice and information given to patients, omission of important elements of management, duplication of activity, and frustration on the part of patients and their families (and indeed of clinicians).

Referral of patients from one professional to another is likely to occur in two different types of situations:

- When a patient is referred from an expert in one modality of treatment to an expert in another, or from an expert in one discipline to an expert in another. For example, a patient with breast cancer may be referred by a breast surgeon to a radiation oncologist for adjuvant radiotherapy, or a patient about to undergo resection of a colorectal tumour may be referred by a colorectal surgeon to a nurse specialist in stomal therapy to prepare for a possible colostomy.
- When a patient is referred from one clinician to another within the same treatment modality. Such referrals usually occur in the context of a recognition that a higher level of specialised expertise is needed for effective care. For example, a general physician who diagnoses a Hodgkin lymphoma may refer the patient to a haematologist for advice and management; or a general surgeon who excises a melanoma may refer the patient to a specialist surgeon in a melanoma centre on receipt of a pathology report indicating that the tumour is thick enough to warrant consideration of sentinel node biopsy.

Credentiailling systems provide a means for monitoring the referral behaviour of clinicians. At least four aspects can be monitored.

- Appropriate referral for multi-modality and multi-disciplinary care. Based on the examples above, an indicator might be the proportion of patients with a particular tumour (e.g. breast cancer) receiving adjuvant therapy (e.g. radiotherapy); or the proportion of patients undergoing colorectal cancer resection referred pre-operatively to a stomal therapy nurse. Other indicators might be the proportion of newly-diagnosed cancer patients who are referred for psycho-oncology services, and the

proportion of patients referred to palliative care physicians (ideally, well before the terminal stages of their disease).

- Appropriate referral when a clinician reaches the limits of his or her expertise, or the limits of his or her scope of practice within an institution; the latter may reflect the clinical capability of the institution as much as the expertise of the clinician. An indicator might be the proportions of patients with gynaecological cancers who are managed, respectively, by (i) a general gynaecologist, without advice from a gynaecological oncologist, and (ii) a gynaecological oncologist. Another indicator might be the proportion of rural general physicians who refer patients to medical oncologists for advice on chemotherapy, prior to supervising the administration of the chemotherapy themselves in local hospitals.
- The existence of referral pathways. This requires that clinicians demonstrate that they are part of an organised cancer-care system. It is particularly important that cancer clinicians who are not part of a large clinical cancer institution (e.g. cancer clinicians in regional and rural practice) have ready, well-defined pathways for referral to expert colleagues and for expedited transfer when needed.
- The process of referral. This must include two types of communication: (i) communication with the patient about the reasons for the referral, what the patient can expect from the referral, what the patient can expect with regard to continuing involvement of the referring doctor, and details of the arrangements (e.g. appointments, addresses, etc) – this is part of patient-centred care; and (ii) communication between the health professionals with regard to clinical history, pathology, results of investigations undertaken to date, disease progression, and patient expectations. Although effective communication is widely recognised as a critical part of the referral process, inadequate or ineffective communication is commonplace.

3.6 Research and the uptake of new knowledge

Like many fields of clinical practice, the clinical management of cancer patients has improved enormously as a result of research and the uptake of new knowledge. The active engagement of clinicians in research will inevitably lead to further improvements in cancer care and cancer outcomes. The existence of a research culture in clinical environments has been shown to improve the quality of clinical care.

Credentialement systems have great potential to promote cancer research and to develop and sustain a research culture within clinical services. It would be unreasonable to expect all cancer clinicians, as a condition of credentialling, to lead research projects or even to be co-investigators. However, it is desirable for credentialling criteria to include the following:

- Clinical trials: A requirement to report on involvement in clinical trials. An indicator is the number or proportion of eligible patients enrolled in approved, registered clinical trials. Clinicians who treat cancer patients in small centres could be encouraged to be affiliated with clinical trials conducted in larger centres.

- Involvement in other types of research: This could range from contributing data to clinical cancer registries and databases and contributing tumour tissue to tissue banks, through involvement in research as a co-investigator, to leadership of research projects. Indicators might include reports of involvement in research, research grants awarded, and publications.
- Attendance at research seminars.
- Awareness of ethical, privacy, confidentiality and consent requirements with regard to clinical trials, contribution of clinical data to registries and databases, contribution of tumour tissue to tissue banks, and the conduct of research.
- Activities to acquire or enhance skills in research methodology as part of continuing professional development.

Of these five criteria, the most important are involvement in clinical trials and awareness of related ethical, privacy, confidentiality and consent requirements. Credit could be given for fulfilling the other criteria.

As mentioned in section 3.2, credentialling is also an important vehicle for promoting the uptake of new knowledge.

- Standards of care, described in section 4.2, form a framework of reference for clinical services, and standards can be updated to incorporate the most recent research for evidence-based practice. Credentialling processes compare the performance of individual clinicians with standards of care.
- Credentialling requirements for continuing professional development also provide a mechanism for ensuring that clinicians keep up to date with new knowledge on all aspects of cancer management.

4 Credentialling of cancer clinicians

4.1 Overview

In section 2.4, we identified the components of a credentialling system, following specifications given in the generic national standard. These components, listed below, incorporate definition of a clinician's scope of practice:

- Credentialling policies.
- Governance.
- Mechanisms for assessing and reviewing clinical need.
- Mechanisms for assuring organisational capability.
- Recruitment processes.
- Processes for credentialling the existing clinical workforce.
- Contracts of employment or engagement for individual clinicians.
- Data collection and analysis systems.
- Processes for the regular review of clinicians' adherence to agreed standards of practice and their performance.
- Management of changes to the scope of practice, suspension and appeals processes.

Systems for the credentialling of cancer clinicians are broadly similar to those for the credentialling of practitioners in other fields. However, some adaptation is required for cancer services. The template or guide for cancer credentialling that we propose in the Appendix of this report describes the steps that a health-care organisation could follow in implementing a credentialling system. In the guide, we group these steps under four headings:

- Beginning the implementation process.
- Standards of practice.
- Policies, processes and infrastructure.
- Assessment of individual clinicians.

Each of these headings refers to a series of decisions and/or actions for health-care organisations and the cancer clinicians whom they employ. In sections 4.2, 4.3 and 4.4 respectively, we elaborate on some of the more complex elements of them.

4.2 Standards of care for cancer clinicians

The definition of *credentialling* given in section 2.1 makes reference to competence:

'the demonstrated ability to provide health care services at an expected level of quality and safety.'

It also makes reference to performance:

'the extent to which a medical practitioner provides health care services in a manner which is consistent with known good practice...'

We have underlined the phrases which imply that credentialling must be carried out with reference to agreed or acknowledged standards of care. Both the expected performance and the indicators to be used for assessing the performance of individual clinicians must be specified with reference to the standards that pertain to the individuals' defined scope of practice.

Standards of care for the management of cancer comprise:

- generic standards that apply to all cancers;
- tumour-specific standards that apply to a particular tumour stream; and
- common standards that apply to two or more particular tumour streams.

A *tumour stream* is a group of cancers that affect a particular organ or body system and are managed by professionals with particular areas of expertise, often working in or affiliated with specialised service-delivery organisations. The following is a list of 10 tumour streams that together account for more than 90 percent of the total incidence of registered cancers in Australia:

- Genito-urinary cancers, including cancers of the prostate, bladder, kidney and testis.
- Colorectal cancer.
- Breast cancer.
- Melanoma.
- Lung cancer.
- Haematological malignancies, comprising lymphomas, leukaemias and myeloma.
- Gynaecological cancers.
- Head and neck cancers.
- Upper gastro-intestinal cancers, including cancers of the oesophagus, stomach, pancreas and hepato-biliary system.
- Central nervous system tumours.

Standards of care for cancer can be determined by a national or State or Territory health authority, a regional health service, or even an institution such as a hospital. However, a national or a multi-jurisdictional approach has the obvious potential to save much duplication of effort. National or multi-jurisdictional statements can be adapted to local needs.

A standard of care may contain requirements that apply to health-care organisations, or requirements that apply to individual clinicians, and/or requirements that involve both organisations and individual clinicians. The latter two types of requirements are relevant to the credentialling of clinicians, while the first is relevant to the accreditation of health-care organisations. Standards for use in credentialling could either be based on existing documents or be developed anew.

Examples of existing documents that set out generic cancer standards are as follows.

- A Clinical Service Framework for Optimising Cancer Care in NSW. This includes standards for patient-centred care; multi-disciplinary care; communication between primary, secondary and tertiary services; and education, training and continuing professional education.
- NHMRC Clinical Practice Guidelines for the Psychosocial Care of Adults with Cancer.²⁰
- The NHMRC publication, *Familial Aspects of Cancer: A Guide to Clinical Practice*.²¹

NHMRC clinical guidelines are the most important examples of documents that set out tumour-specific standards. The cancers that they cover include breast cancer^{22,23,24}, colorectal cancer²⁵, prostate cancer²⁶, lung cancer²⁷, melanoma²⁸, non-melanoma skin cancer²⁹, and epithelial ovarian cancer.³⁰

The use of published evidence-based guidelines to define standards for credentialling has two limitations. First, given the pace of cancer research, the guidelines rapidly become out of date. Second, the translation of guideline recommendations into standards of practice often requires skilful interpretation. Therefore, it is often necessary to develop new standards for use in credentialling, using published guidelines as a starting point.

To this end, it is desirable for a credentialling system to draw on the standards-development work of tumour-specific special-interest committees. In some jurisdictions, these committees already exist. The Victorian Cooperative Oncology Group (VCOG) Advisory Committees, which are sponsored by The Cancer Council Victoria (TCCV), are examples. When this report was being written, the Cancer Institute NSW was understood to be collaborating with TCCV in forming joint NSW-Victorian advisory committees (Professor J Bishop, personal communication, July 2005). Such advisory committees have the expertise to oversee the development of standards of care, taking account of any available published guidelines and the exigencies of clinical services, and to provide advice on criteria and processes for auditing performance. An effective credentialling system is likely to depend on the existence of several special-interest groups that together provide comprehensive coverage of tumour streams, as well as one or more advisory groups that cover generic issues and issues common to two or more tumour streams.

4.3 Policies, processes and infrastructure for credentialling cancer clinicians

4.3.1 Governance

At the start, it is necessary to delegate the institutional responsibility for credentialling cancer clinicians to an individual or a group. That is, it is necessary to give formal responsibility for governance to an individual or group, and to specify the terms of reference of the governance structure. Cancer services are likely to share a governance structure with other clinical services. It is important to ensure that at least some of those involved in

governance have a comprehensive understanding of cancer and cancer services, and skills in the critical interpretation of data on cancer services. In many parts of Australia, health services are managed on a regional or institutional basis, and a regional director of cancer services or an institutional director of oncology is responsible for the organisation and delivery of cancer services. This individual is usually at the apex of the governance structure for cancer credentialling. A credentialling committee that reports through the director to the chief executive oversees the credentialling process. In many institutions it may be necessary to set up a separate cancer credentialling committee.

Infrastructure for credentialling is essential. This comprises staff who can support the credentialling committee, staff with skills in information technology, data management and analysis, computers, and office space. Appropriate security is essential because the computers and the office will contain confidential data on clinicians and patients.

Membership of a credentialling committee for cancer services should include individuals who have a knowledge of cancer and cancer services, but the involvement of professional peers is not without problems. The committee must be capable of an objective evaluation of performance data. The committee must also be able to assert the primary purpose of credentialling – promoting safety and quality of care – in the face of organisational pressure that may seek to use the credentialling system to obtain other managerial outcomes. Committee members appointed to conduct credentialling are often likely to be close colleagues of, or in close competition with, those being credentialled. This can create obvious difficulties, especially in services that employ only small numbers of cancer clinicians. The establishment of credentialling committees at regional levels may provide one solution, as it draws on a larger potential membership pool. Another solution is cross-regional committee membership – clinicians in one region conduct credentialling of clinicians in another region, following local policies and processes.

4.3.2 Local credentialling policies

When establishing credentialling systems, health-care organisations, such as regional health services and individual hospitals, develop policies that clarify the local intent and scope of credentialling. These policies must be accepted by those responsible for governance of the credentialling system. Many of the policies will be generic, i.e. they will apply to clinicians in all fields, not just cancer. Generic issues are listed in section 2.4, point (1). With reference to the credentialling of cancer clinicians, service-level policies should:

- Express commitment to credentialling as a means of promoting the safety and quality of cancer services, recognising the diversity of cancer, the diversity of cancer clinicians, and the extent and complexity of cancer services.
- Emphasise the need for a cancer credentialling system to be dynamic, i.e. to change and keep pace with the rapid production of new knowledge about cancer and cancer management and the evolution of cancer services.
- Highlight the need to assure organisational capability for the services that are within a credentialled clinician's scope of practice.

- Acknowledge the attributes that make a cancer clinician effective – (i) individual attributes (a commitment to continuing education and research, up-to-date knowledge of best practice and high-level clinical skills) and (ii) engagement in well-organised systems that deliver integrated, patient-centred, multi-disciplinary care.
- Ensure that cancer clinicians comply with legal and ethical requirements for the collection, analysis, secure storage and use of data for the credentialling of cancer clinicians, including data on cancer patients and data on clinicians' performance.

4.3.3 Local clinical need

Definition of the scope of individual clinicians' practice depends upon a clear understanding of the local need for particular cancer services. An assessment of need depends, in turn, on the analysis and synthesis of at least four types of data: demographic data on the local community; epidemiological data on the occurrence of cancer; data on the distribution and capacity of cancer services; and data on patterns of care, including the extent to which local services have the capacity to fulfil recommended standards of care. Analyses should include appropriate comparisons, e.g. with State or Territory or national data and with known benchmarks. The results of these analyses should be used in determining workforce requirements.

4.3.4 Organisational capability

Organisational capability refers to the availability of facilities, infrastructure and clinical and non-clinical support services that are essential for the provision of specific clinical services, procedures or other interventions. A clinician can be credentialled for particular services only if the health-care organisation has the capability to enable those services to be delivered safely. Thus, organisational capability is the issue on which credentialling and accreditation processes intersect. The assessment of organisational capability requires a comprehensive understanding of the sequelae of all of the conditions and interventions within the proposed scope of practice of the cancer clinicians employed in an institution.

Organisational capability may refer to in-house capability or capability within a network of linked services.

- In-house capability must exist where services could be needed immediately. For example, any hospital that undertakes major head and neck, thoracic, abdominal or pelvic surgery for cancer must have in-house capability to provide high-level post-operative care and be able to deal with acute respiratory, circulatory and other complications. Importantly, this in-house capability must be available 24 hours a day, seven days a week – not just when visiting consultants are present in the hospital.

- Capability within a network of linked services is acceptable where appropriate referral pathways exist and transfer times are sufficiently rapid to meet clinical requirements. For example, a regional cancer service that does not have on-site radiotherapy equipment is regarded as having the capability to treat patients with metastatic disease, provided that the service is linked with a fully-equipped radiation oncology unit to which patients can be rapidly referred (e.g. to relieve pain due to bony metastases) or urgently transferred (e.g. to resolve spinal-cord compression due to vertebral metastases).

4.3.5 Collection and audit of clinical performance data

The principles for compiling, analysing and using clinical performance data for the credentialling of cancer clinicians are identical to the principles that apply to the credentialling of clinicians in other fields. The only significant differences are the scope and content of the data. The required indicators comprise:

- Generic indicators, which apply to all cancer clinicians employed in a health-care organisation, and reflect the extent to which cancer clinicians fulfil generic standards of care. Generic indicators cover topics such as the provision of patient-centred care.
- Specific indicators, which apply to the work of individual clinicians, or groups of clinicians who have a similar scope of practice. Specific indicators cover the management of patients with particular types of cancer.

It is desirable to keep to a minimum the number of indicators required for credentialling; otherwise, the process of compiling data on them becomes onerous for clinicians and resource-intensive for the credentialling system.

Some indicators are quantitative, but many are qualitative. Qualitative indicators require the clinician to provide a 'yes/no' answer or a short statement to indicate whether, or to what extent, he or she meets a particular practice standard. Examples are given in the template or guide proposed in the Appendix.

In relation to performance indicators for public hospital breast services, BreastScreen Victoria has proposed two types of quantitative indicators:³¹

- Rate-based measures, which measure patient care events that occur at sufficient frequency to be expressed as percentages.
- Critical events, which occur infrequently, and can be enumerated for review on a case-by-case basis.

The set of public hospital breast service indicators recommended by BreastScreen Victoria are reproduced in Box 4.1. They highlight a general point of difficulty in specifying quantitative indicators for credentialling: few if any aspects of a cancer service are determined solely by the expertise and behaviour of clinician. Most aspects of cancer service delivery are determined jointly by organisational factors and clinician factors, or by interactions between two or more clinicians.

A selection of the generic and specific indicators should be designed so that data on them can be aggregated to give those with overall responsibility for service delivery (e.g. the regional chief executive and the director of cancer services or the director of clinical oncology) an overall picture of the safety and quality of cancer services. Resources should be earmarked for the preparation of such summative reports.

Box 4.1: Recommended performance indicators for Victorian public hospital breast services

Rate-based measures

1. percentage of new breast clinic patients seen within 14 calendar days of request for appointment date
2. percentage of patients having contact with a breast care nurse between being informed of a diagnosis of breast cancer and having definitive surgery
3. percentage of new patients who have one or more medical consultations between being informed of a definitive diagnosis of breast cancer and commencement of definitive treatment
4. percentage of patients undergoing definitive surgery for breast cancer whose operative specimens have clear histological margins
5. percentage of patients with complete histopathology reports following definitive surgery for invasive breast cancer
6. percentage of invasive breast cancer patients with evidence of a multidisciplinary team management discussion having taken place (as defined by an agreed local protocol)
7. percentage of patients whose general practitioner was sent management information within 14 calendar days of discharge following definitive surgery for breast cancer
- 8.1 percentage of patients having definitive surgery for invasive breast cancer, with defined indications for radiotherapy, who are referred to a radiation oncologist
- 8.2 percentage of invasive breast cancer patients with intermediate or high risk of recurrence who are referred to a medical oncologist
9. percentage of invasive breast cancer patients diagnosed with bone metastases receiving bisphosphonate treatment

Critical events

1. the number of invasive breast cancer patients diagnosed with febrile neutropaenia following administration of chemotherapy, requiring an overnight stay in hospital
2. the number of breast cancer patients requiring an unplanned return to the operating room during an admission for breast cancer surgery for a problem related to that surgery
3. the number of patients who have an unplanned readmission to hospital within 28 days of discharge following breast cancer surgery, with a complication related to that surgery.

4.3.6 Performance review

Processes for review of cancer clinicians' performance must be clearly defined so that they can be specified in credentialling agreements and endorsed by both the employing organisation and individual clinicians at the beginning of the credentialling cycle.

Agreements must set out:

- Relevant standards of care.
- Reporting requirements that are to be met by the organisation and the clinician.
- The information that clinicians would be asked to explain any variations from the relevant standards of care that may occur.
- Processes that the credentialling committee will follow in responding to performance data and variations from standards of care.

For the promotion of safety and quality in cancer care, performance review must be conducted in an atmosphere that promotes rather than inhibits clinical practice improvement. Clinicians must appreciate that deviations from standards of care are expected. Deviations are acceptable if they can be explained by factors such as patient preference and clinical complexity, and by organisational factors that could not plausibly be influenced by the clinician. A punitive approach to performance review must be avoided in all circumstances. Where variations from standards of care suggest negligence or practice that is clearly inappropriate, investigations should be carried out promptly but separate from the normal processes of performance review. Credentialling should not be used as a threat or as a means for dispensing with the services of difficult or unpopular personalities. To do so would undermine its purpose.

As mentioned in section 4.3.5, performance review should be extended to include reports on the overall performance of oncology units or of an institutional or regional cancer service as a whole. Aggregated performance data could have at least two uses:

- Monitoring the performance of clinical units to identify high-priority areas for clinical improvement.
- Providing service directories for the community, giving caseload and possibly outcome data.

Revealing the attribution of deficiencies in the performance of a unit or a cancer service to deficiencies in the performance of one or a small number of cancer clinicians is a vexed question. It is a matter that should be covered in local credentialling policies (see section 4.3.2). Review of aggregated data inevitably poses a threat to the individual clinicians who are implicated in causing variations from standards of care, even if the causes are judged to be acceptable. It is the role of the credentialling committee to protect individual clinicians from unwarranted criticism, but not to shield them in the face of demonstrable negligence or inappropriate practice. Balanced membership of credentialling committees is obviously important (see section 4.3.1).

4.4 Proposed template for credentialling cancer clinicians

In the Appendix to this report, we propose a template or guide for use by health-care organisations in credentialling clinicians with responsibility for the care of cancer patients. The guide is oriented towards the credentialling of medical practitioners, but can be adapted for other clinicians such as nurses, allied-health practitioners and psychologists.

The guide is designed to be a 'stand-alone', self-explanatory document. It draws on, and often repeats points from, the definitions, descriptions and commentary given elsewhere in this report.

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