

Clinical excellence in cancer care

A model for safety and quality in Victorian cancer services

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1. Achieving high quality cancer care in Victoria

Cancer reforms

The care of cancer patients represents a significant proportion of all health care delivered in Victoria, and the number of cancer patients is estimated to continue to increase (Department of Human Services 2006a) with the ageing population. Rapid changes and improvements in research, screening programs, medical technology and treatments have resulted in more people being cured and a longer life for many others.

In response to these demands and the need for an efficient and effective service system that meets the needs of consumers, Victoria has committed to a range of cancer reforms. Two key components of these reforms are the establishment of Integrated Cancer Services and the development of care based on tumour streams.

Integrated Cancer Services are partnerships between health services for the purpose of planning and service improvement across a geographic area. The reasoning behind Integrated Cancer Services is that coordinated cancer management will occur if there are formal relationships between providers, settings and health services.

The role of Integrated Cancer Services is to:

- Build partnerships
- Improve cancer care
- Plan cancer services across a geographic area based on access, appropriateness and effectiveness.

Tumour streams are collaborative approaches to care and service improvement between consumers and health professionals. The reasoning behind tumour streams is that a consistent approach to care, for a particular tumour category, based on evidence will reduce unacceptable variations in care. Tumour streams include consistent approaches to care for a particular tumour category supported by: agreed treatment protocols, monitoring of best practice, identifying areas for service improvement, implementing system change to support service improvement and evaluating the impact of service improvement.

Ten major tumour categories account for over 90 per cent of cancers in Victoria. The first step in the establishment of tumour streams in Victoria was the development of patient management frameworks across the ten tumour streams. Patient management frameworks are a guide to the optimal care management of patients in each tumour stream. They are intended to improve patient outcomes by facilitating consistent care based on evidence and best practice across the state. They set out the key requirements for the provision of optimal care which need to be considered at each step of the care pathway (Department of Human Services 2006a).

Safety and quality in cancer services

Measuring, monitoring and improving cancer services is a challenge given the complexity of cancer care and the range of organisations in which it is planned and delivered. Improvement activity needs a clear focus and an integrated approach if there are to be visible benefits for consumers.

Clinical excellence in cancer care provides a blueprint for Integrated Cancer Services to drive an integrated approach to safety and quality in cancer care. It describes the key principles and practices necessary for the effective monitoring, management and improvement of cancer services. It consolidates the work of the Integrated Cancer Services incorporating the key priorities for cancer reform while aligning with the quality systems that exist in health services.

Clinical excellence in cancer care is not an accreditation system. It is designed to support and strengthen the fundamental aspects of cancer care. Essential elements within the model provide criteria for focusing and monitoring improvement activities and enable Integrated Cancer Services to direct their work in a systematic way and to evaluate the difference they are making to the quality of cancer care.

Integrated Cancer Services bring first-hand knowledge and understanding of the cancer care system, and through the engagement of clinicians, are well placed to identify and implement safety and quality processes to bring about tangible benefits to consumers. The next phase for the implementation of safety and quality in cancer care will be the development of robust indicators and a peer review program between Integrated Cancer Services.

2. Model for safety and quality in Victorian cancer services

The model for safety and quality in Victorian cancer services recognises that cancer services operate within an existing health care system that has arrangements, mechanisms and processes for safety and quality. To maximise outcomes and minimise duplication of effort, the model builds on current safety and quality systems and knowledge and aligns cancer service priorities with those of the health services.

The key elements of the model are:

- collaboration and partnerships between quality units and cancer services
- clinician and consumer led service improvement
- valid and reliable data used to identify gaps in safety and quality and to monitor improvements following change
- based on best practice and evidence based care
- use of clinical quality tools such as indicators, case and peer review, and audit in a systematic cycle of analysis, discussion, action, follow up and feed back to participating health services.

The model (described in Figure 1) identifies:

- six clinical dimensions of cancer care quality to guide patient care monitoring and improvement
- four structural components necessary to provide a solid organisational foundation for quality.

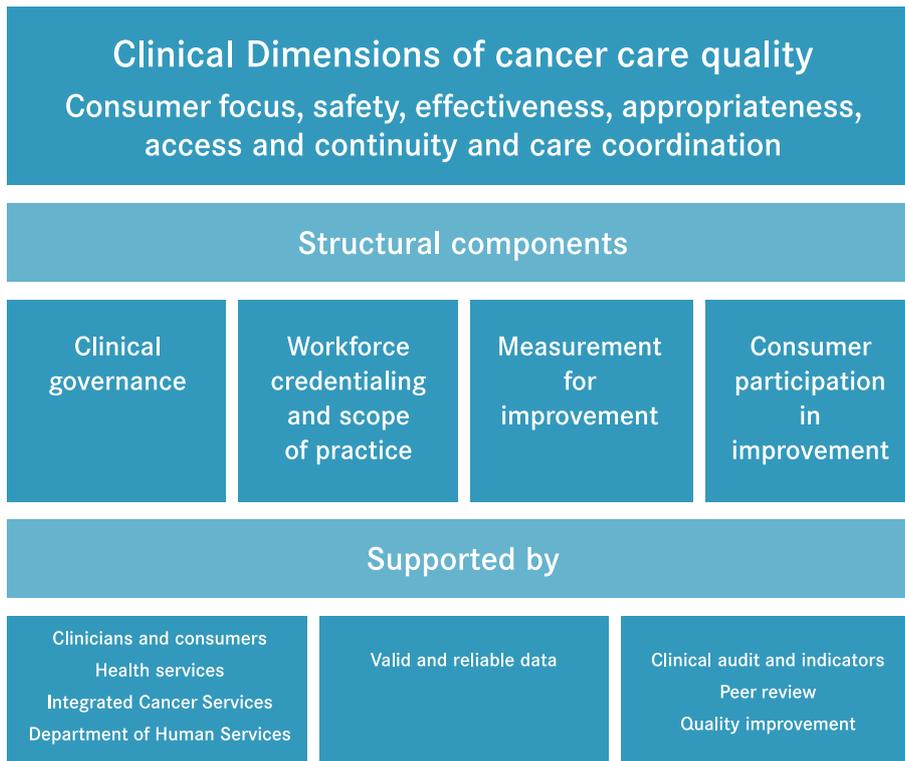
The **six clinical dimensions** include areas recommended for attention, which are recognised locally, nationally and internationally as key to improving the safety and quality of care. These areas include consumer focus; safety; effectiveness; appropriateness; access to care and services; and continuity and care coordination.

The four **structural components** recognise that cancer services participate in the quality programs of the health services by which they are governed. These programs are based on a planned approach to improvement, including the critical components of clinical governance; workforce credentialling and scope of practice; measurement for improvement; and consumer participation in quality improvement. These components do not duplicate all structural elements of quality programs found in health services, but focus on those critical to supporting cancer care.

The model is supported by:

- those participating in cancer care who understand cancer care and the ways to make improvement;
- valid and reliable data that provide the means to measure and monitor improvement; and
- quality improvement tools that provide the mechanisms through which improvements can occur.

Figure 1: Model for safety and quality in Victorian cancer services



3. Clinical dimensions of cancer care quality

This section describes the clinical dimensions of cancer care quality, their importance to safety and quality and their particular significance to cancer care. These dimensions describe the essence of what makes ‘quality care’ and are recognised locally, nationally and internationally as fundamental to improving the safety and quality of care. Many of these dimensions will already be part of health service safety and quality programs on which cancer services can build to improve the safety and quality of cancer care.

1. Consumer focus

High quality care is underpinned by a focus on care that meets the needs of consumers. Care that has a consumer focus promotes consumer participation at the individual, health service and health system level.

At the individual level, consumers need to be actively involved in their management by having information about their health and treatment, participating in decisions about their care, feeling that their care is coordinated between service providers and feeling supported in their physical, psychological, spiritual, social and practical needs.

At the health service and health system level, consumers need to be involved in actively designing and improving health care through participation in governance, policy development, program implementation and service improvement (See section 4).

Care that is focused on the consumer is planned and focused on achieving best benefit for the consumer, in a way that is acceptable to their values and beliefs.

Consumer focused care:

- respects consumers’ values, preferences and expressed needs
- coordinates and integrates care across boundaries of the system
- provides the information, communication and education that people need and want
- supports self-management where appropriate and safe
- guarantees physical comfort, emotional support and the involvement of family and friends (Institute for Healthcare Improvement, 2006).

Consumers identify communication as a critical element of health care. When asked about communication with health professionals, consumers make specific reference to difficulties encountered with the terminology used, attitude of staff, honesty of communication and the perceived power imbalance engendered through current communication methods. These issues can be largely resolved through the development of information and communication methods in conjunction with consumers, to ensure their perspective is recognised and accommodated (Institute for Healthcare Improvement 2006, Victorian Quality Council 2004, Department of Health 2006, Department of Health 2004a).

2. Safety

Health care that minimises the risk of injury, infection or possible harmful side effects is a fundamental principle of safe and high quality health care. In Victoria, the Department of Human Services supports safe care through its Clinical Risk Management Strategy. Health services have processes in place to report, respond to and manage patient safety risks, and cancer units can access these data to monitor key safety issues for cancer patients. Adverse events occurring with medications and blood and blood products can be reviewed for preventable errors in prescribing, administering and patient identification, and infections reviewed for use of prevention protocols such as correct surgical preparation and technique, and use of antibiotic prophylaxis. These reviews inform improvements in care processes and the development of systems to minimise risks of these occurrences (Victorian Quality Council 2003, Department of Human Services 2000, NSW Department of Health 2001).

Regular monitoring and review of adverse events – incidents occurring in hospital causing harm to cancer patients and requiring further intervention – needs to occur in the high risk areas of medications, radiation treatment, blood and blood products and hospital acquired infection. All cancer inpatients are at risk of one or more of these, and their occurrence could seriously compromise their clinical condition.

3. Effectiveness

The effectiveness of health care relates to the extent to which a treatment, intervention or service achieves the desired outcome. Effectiveness is monitored through implementing a regular program of clinical audit and review of cancer consumers' care. Clinical audit of effectiveness may examine medical records, administrative databases and/or specific prospective data collections against a set of criteria that identify effective care. These can be reported in aggregate, unidentified form as trends to inform practice and they may also initiate specific case review for further understanding of compliance to agreed protocols. Clinical indicators developed by health services, professional, college or accreditation organisations can also be used to monitor aspects of care effectiveness. Integrated Cancer Services provide an ideal structure for assisting with data collection, aggregation and feedback to cancer clinicians and units, and for comparisons between tumour streams.

4. Appropriateness

Appropriate health care is based on evidence to ensure that the right thing is done to the right person at the right time, avoiding over and under utilisation and unnecessary variation in the practice and standard of care. This requires mechanisms that promote and embed evidence-based practice that involves, and is tailored to, individuals.

Overuse may be addressed as part of ensuring appropriateness to reduce undue risk related to interventions and associated waste. Measures of underuse will require evidence to demonstrate when a particular intervention should be used, and practice measured against this to ensure all eligible patients are receiving the maximum health benefit (Victorian Quality Council, 2003).

A consumer focus is key to appropriate treatment. Appropriateness requires adapting care to each individual consumer. This requires consumers to participate in their care. To do this, consumers must be provided with all information relevant to treatment decisions and given the opportunity to participate in the planning and delivery of their care. Policies and protocols are needed to embed this in the routine of wards, theatres and other departments. Consumers and the community may be involved in appropriateness by assisting in information development for review of disease-specific care and services to inform decision making (Victorian Quality Council 2003 and 2004).

Appropriate cancer care is provided by multidisciplinary teams that bring together the mix of skills needed to provide best practice care to meet consumers' physical, emotional and supportive care (Department of Human Services 2007a). Multidisciplinary teams comprise all core disciplines, including allied health, supportive care health practitioners and GPs. Patients participate in treatment decision-making with an appropriate member of the multidisciplinary team. Identifying evidence-based practice and integrating it into care protocols and pathways requires collaboration between multidisciplinary teams, health services and Integrated Cancer Services. Appropriate care is also delivered in the health service that is best equipped to provide safe and effective care (Department of Human Services 2006a, Department of Health 2004b, NSW Department of Health 2003).

Appropriate end of life care is particularly important for cancer consumers, carers and their families. This often requires a shift in focus from cure and prevention to alleviating symptoms, making thoughtful decisions, supporting families, and providing ongoing care in the appropriate setting (Institute for Healthcare Improvement 2006).

Research has shown that people entering the end of life phase of their care want:

- to be cared for and die in the place of their choice if possible, with help in accessing palliative care services and advice on their choice of place to die
- careful explanations on the options of their choice of place to die
- their spiritual needs to be met
- to know that their care will be planned and who their key contact is
- a well coordinated, flexible and responsive health care team to provide support with 24-hour access
- pain control to be readily available
- help to access aids and adaptations, transport, social care and specialist palliative care services when needed (Department of Human Services 2006a, Institute for Healthcare Improvement 2006, Department of Health 2006).

Appropriateness of cancer care can be regularly reviewed using mechanisms, such as audits; using criteria that support the use of best available evidence-based standards and protocols; via relevant indicators; clinical pathway variance; direct observation and consumer and staff surveys.

5. Access to care and services

Access is the degree to which health services are accessible to the population they serve, on the basis of need. This includes availability of services, waiting times for services and processes involved in accessing services and information in ways that minimise anxiety and stress to consumers and carers. It includes timely and appropriate access to specialist referral, tests and their results, relevant clinical treatment, supportive care and end of life care (Victorian Quality Council 2003, NSW Department of Health 2003).

Access requires a coordinated and collaborative approach between Integrated Cancer Services, health care organisations, cancer units, community, and diagnostic services (Department of Human Services 2006a, Collaboration for Cancer Outcomes Research and Evaluation 2003, Department of Health 2004a, Department of Health 2004b, NSW Department of Health 2003).

Integrated Cancer Services have undertaken service mapping to inform strategic planning. Ongoing planning requires regular review of activity, forecasting and population data to inform strategic directions. Integrated Cancer Services need to work in partnership with the Department of Human Services to plan for services including new models of service delivery to improve access to services.

6. Continuity and care coordination

Consumers have a right to receive care that is coordinated across the care continuum. Such care ensures a comprehensive and streamlined patient journey that minimises duplication and coordinates patient information and service delivery.

The delivery of coordinated cancer care requires determining what care is needed; clarifying roles and tasks to ensure the care is received; making sure that all the clinicians who take care of a person with cancer have up-to-date information about their current status; and making follow-up a part of standard procedure (Department of Human Services 2006a, Collaboration for Cancer Outcomes Research and Evaluation 2003, Department of Health 2004b, NSW Department of Health 2003). Consumer information, such as consumer resources and 'patient held' records, also support the central role of the consumer in care coordination.

People with cancer move between sectors and care teams frequently. Continuity and coordination requires partnerships and alliances between service providers to improve sharing of information, build relationships and improve clinical management and care processes (Department of Human Services 2007b).

4. Structural components

This section describes the structures that lay the foundation for an effective safety and quality system. These structures support safe and high quality clinical cancer care through the impact they have on each of the six clinical dimensions of cancer care quality as described in the previous section.

1. Clinical governance

Clinical governance is:

the system by which the governing body, managers, clinicians and staff share responsibility and are held accountable for patient care, minimising risks to consumers and for continuously monitoring and improving the quality of care and services (Australian Council on Healthcare Standards 2004).

The *Health Services Act 1988* outlines the responsibilities of health services in the provision of high quality care.

Clinical governance is the responsibility of the respective health services that participate in the Integrated Cancer Service. Clear communication mechanisms and role responsibilities between the Integrated Cancer Services Executive and health services will ensure that there is transparent accountability for clinical governance.

Effective cancer services quality programs are built on a solid basis of clinical governance, which ensures that consumers, governing bodies, clinicians and health care staff understand, enact and are fully supported in their roles in assisting health care organisations to fulfill their accountabilities to provide safe and quality care. This requires a planned approach to improvement that prioritises activities according to the best benefit to consumers, embeds quality in the structure and business of the service, and ensures that the board, managers and staff are clear about and supported in their improvement roles (Victorian Quality Council 2003, Institute of Healthcare Improvement 2006, Cancer Council Australia and Australian Cancer Network 2005).

2. Workforce credentialling and scope of practice

Assessing, achieving and maintaining a high level of staff competence at all levels to ensure the safe and effective delivery of health care is both a corporate and a personal responsibility. Achieving this requires close attention to recruitment, credentialling and scope of practice, peer review, skills assessment, clinical supervision, recertification and continuing education.

Credentialling is defined in the National Standard developed by the Australian Council for Safety and Quality in Healthcare (2004) as:

the formal process used to verify the qualifications, experience, professional standing and other relevant professional attributes of medical practitioners 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.

Credentiailling is necessary to improve and sustain the safety and quality of health care through minimising practice variation and ensuring wide adoption of best practice. Documents such as the *Australian Safety and Quality Credentialling Standard*, *The Cancer Council Australia Cancer Clinicians Credentialling Guide* and the *Victorian Department of Human Services policy handbook for credentialling in rural health services* provide comprehensive guides to credentialling processes. Medical clinicians with independent responsibility for the care of people with cancer will be involved in a credentialling process. Credentialling of other clinicians, including nurses and allied health professionals, is likely to be considered in the future (Department of Human Services 2006a, Victorian Quality Council 2003, Cancer Council Australia and Australian Cancer Network 2005, ACQSH 2004, Department of Human Services 2006b, Department of Human Services 2006c).

Performance review at regular intervals is a key component of credentialling and involves ongoing review of the skills, performance and development of individual clinicians. The key feature of the performance review process is the exchange of regular verbal and written feedback about performance between the clinician and their supervisor/manager. This process allows the identification of professional development opportunities, unsatisfactory performance, and opportunities to improve performance through collaborative goal setting. There is no common formula for how to conduct performance reviews; however, there are a number of instruments available to conduct them. The performance priorities included in the review process will vary depending on the performance priorities of the health care organisation (Brand et al 2005).

Performance reviews and credentialling will identify areas for ongoing individual and team skills and knowledge development and assist in achieving an effective and appropriate staff skills mix for the population served by cancer services (Department of Human Services 2006a).

3. Measurement for improvement

Monitoring and measuring safety and quality is fundamental to health care delivery. Research shows that internal feedback of quality indicators, combined with other quality improvement interventions, raises standards of care, and that professional peer comparisons within multi-hospital collaborations can drive service improvement. Incentives for reporting and participation lie with evidence that identified opportunities for improvement are acted on through provision of administrative and clinical resources and support. Care must be taken to avoid creating perverse incentives, such as gaming and adoption of defensive medicine, through inappropriate measures (Scott and Ward 2006, Scobie et al 2006, Hughes and Mackay 2006).

A variety of strategically chosen quantitative and qualitative measures is needed to fully understand the quality and safety of health. To be useful in informing care and service improvement, measures need to be valid, reliable, accurate, collectable, meaningful, relevant and important to those who will use them.

Clinical performance measurement provides the opportunity to monitor, evaluate and review the practices of an organisation ensuring continuous improvement in the safety and quality of care. More specifically, implementation of an effective performance measurement system has the potential to improve safety by (Brand et al 2005, Scrivens et al 2003, Department of Human Services 2006d):

- encouraging professional development
- promoting and maintaining minimum standards of care
- enhancing the coordination and management of care
- ensuring organisational and clinician accountability for health care
- providing a standard against which organisations and clinicians can compare their performance to that of their peers
- rewarding organisations and individual clinicians for excellence in quality and safety of care
- from the perspective of consumers and carers, creating confidence that they will be the recipients of the highest standards of evidence-based health care.

Methods of cancer care measurement for improvement may include the following:

- Clinical audit
- Medical record review
- Benchmarking
- Peer review
- Performance indicators.

See Appendix 1 for more detail.

The quality cycle

Data collected for safety and quality should contribute to improvements in the care delivered to consumers and to the outcomes of that care. If the results of data collection and analysis are not fed back to those providing and receiving services, and to those who collected it, meaningful change and improvement are unlikely to occur. All data collected on the clinical dimensions of cancer care and the structural components should be fed into a systematic cycle of analysis, discussion, action and follow up (plan, do, study, act).

Data collected and action taken should focus on improving care and services for consumers. Any improvement activity should be designed around the following questions:

- What are we trying to accomplish?
- How will we know that a change is an improvement?
- What changes can we make that will result in improvement?
(Institute for Healthcare Improvement 2004)

4. Consumer, carer and community participation in quality improvement

There is evidence that consumer participation in health care brings benefits that include improving the health outcomes and the quality of health care and providing a mechanism for accountability (Department of Human Services, 2006). Consumer, carer and community collaboration is at the core of effective health care improvement and should be considered across all components of the *Clinical excellence in cancer care*. Health care consumers, and the community more broadly, have a right and responsibility to contribute to the quality of public health care services, as identified in the Victorian policy on consumer, carer and community participation in health care, *Doing it with us not for us* (Department of Human Services, 2006). This is reinforced through a minimum participation performance indicator target in the policy requiring health services to have a consumer, carer or community member on the health services' quality committee by 2007-08.

There is growing recognition that consumers have strong potential to influence their own health outcomes if they are actively involved in shared decision making, and provided with quality information and the opportunity to participate in the evaluation of the care they receive. Health care is delivered more effectively if consumers are full partners with their health care providers and involved in decision making about treatments (Department of Human Services 2005, Victorian Quality Council 2003 and 2004, Scobie et al 2006, Cancer Council Australia and Australian Cancer Network and National Breast Cancer Centre 2005).

Consumer, carer and community involvement in quality and safety improvement can enhance and guide the cancer care and services improvement by:

- providing a basis for dialogue between the service and consumers about improving services
- improving the safety, effectiveness, appropriateness and acceptability of individual care episodes
- providing powerful information to health services about their impact on consumers
- identifying priorities, expectations and needs
- providing information about short and long term outcomes of health care treatments
- developing a culture of consumer and health service partnership
- improving consumer information quality and availability and consent processes
- participating as a mechanism that helps to ensure the accountability of the safety and quality of the care provided by the service to the community
- engendering consumer and community support for health services
- developing an understanding of the social view of health and the health of communities (Victorian Quality Council 2004, Department of Health 2004a, 2005).

Planning and effort are required to make participation meaningful and useful for both parties.

Consumers, carers and community members can contribute to quality improvement in a number of ways, including:

- via surveys, focus groups, complaints and conversations with staff
- consumer and carer collaboration in individual care episodes, including treatment decisions and ensuring safe health care practice
- consumer advice on and development of clinical and process related information
- sharing their first-hand experiences of care and services with providers to help improve common understanding and target areas for improvement
- consumer, carer and community consultation on, collaboration in and carriage of planning and improvement committees and activities.
- identification, planning and management of research to improve the quality and safety of health care (National Health and Medical Research Council 2005).

Effective, carer community and consumer involvement requires leadership, resources support, education and training for health services staff, consumers, carers and community members involved.

5. Elements of clinical dimensions of cancer care quality

This section describes the essential elements of the clinical dimensions of cancer care quality that need to be present in cancer services to ensure that safe and high quality cancer care is being delivered. The essential elements have been developed as criteria to focus improvement activities, monitor ongoing progress and evaluate the achievement of safe and high quality cancer services.

1. Consumer focus

- Strategies are developed for developing and enabling cancer consumers' rights and building them into decisions for treatment.
- Strategies are developed that enable consumers to access relevant information during all steps of their care.
- Consumers are provided with a record of the care they receive.
- Consumers are informed of the multidisciplinary team process and recommendations and participate in informed decision making regarding their treatment.
- Relevant supportive care is offered to consumers at all phases of their care.

2. Safety

- Reports are available on cancer care adverse event data, such as medication errors, radiation incidents, blood and blood product incidents and infections from participating health services. This information enables trending, analysis and discussion, and action if necessary. Other mandatory reporting requires health services to investigate surgical incidents including retained instruments, wrong body part or wrong site surgery. Reports may include:
 - consumers with cancer who experience an adverse event as the result of an adverse drug event (including prescription, administration, contraindications and adverse drug reactions)
 - consumers with cancer who experience a post-operative infection
 - consumers with cancer who experience a central line associated infection
 - consumers with cancer who experience a transfusion adverse event (including adverse reaction, incorrect identification of patient or blood type)
 - consumers with cancer that experience a radiation incident.
- All cancer deaths caused by an adverse drug event (including prescription, administration, contraindications and adverse drug reactions) are reviewed as part of the quality systems in the relevant health service and the outcome of the review is fed back to the Integrated Cancer Service.
- All consumers with cancer who experience a relevant peri-operative surgical incident are reviewed as part of the quality systems in the relevant health services and the outcome of the review is fed back to the Integrated Cancer Service.
- Integrated Cancer Services work with associated health services to respond to outcomes of reviews and reduce risk and improve safety in the areas of medication, radiation, blood and infection.

3. Effectiveness

- An audit process (prospective where possible, or derived from administrative databases, registries or medical record review) that supports review and discussion of treatment effectiveness is developed and implemented within Integrated Cancer Services. This process is based on a set of initial criteria that includes:
 - death in hospital of consumers not in the terminal stages of disease
 - complete synoptic reporting following surgery
 - febrile neutropenia following chemotherapy
 - unplanned and unexpected return to the operating room
 - unplanned and unexpected readmission
 - stage adjusted survival by time since diagnosis
 - five-year survival rates
 - disease recurrence
 - status of disease at the end of definitive treatment (NSW Department of Health 2001, Cancer Council Australia and Australian Cancer Network 2005, Department of Health 2004b, Brand et al 2005).
- A process for regular audit, consideration of and response to effectiveness-related data on tumour stream-specific clinical issues is developed.
- Integrated Cancer Services monitor aggregate effectiveness audit data for comparison within tumour streams.

4. Appropriateness

- All consumers with cancer have access to multidisciplinary care that aligns with best practice guidelines and takes into account their individual circumstances and needs.
- Treatment is planned and carried out according to evidence-based practice guidelines and protocols, or currently accepted approaches to treatment if no evidence-based practice is available, through discussions at multidisciplinary team meetings and integration of evidence-based practice into care.
- All new consumers diagnosed with cancer are discussed in at least one multidisciplinary team meeting where all relevant team members are present, either in person or via tele or video conference, or their input is sought before the meeting.
- All treatment protocols are reflective of evidence or best practice protocols.
- There are procedures and systems in place that support multidisciplinary care.
- A planned approach is developed for achieving the optimum skills mix for the cancer population served and for each patient.
- A decision model is applied to determine whether cancer services are appropriately equipped and resourced to provide specific treatments and procedures.
- Variation in care processes from evidence-based protocols is regularly reviewed, with both health service and individual clinician variance developed over time.
- Clinical trial involvement is considered for all eligible consumers.

- Consumers are referred to an appropriate clinician when a different type of expertise is indicated.
- All consumers are regularly assessed for degree of pain and appropriate pain relief is prescribed.
- Supportive care needs are assessed as close to diagnosis as possible and at regular intervals throughout the diagnostic, treatment and follow-up phases of care.
- Relationships, which include appropriate referral pathways, are identified and developed with community and other services that can offer supportive care.
- Multidisciplinary teams institute mechanisms for discussing the needs of individuals with advanced cancer and palliative care needs.
- End of life care plans are tailored to consumers who require them and agreed plans for end of life care are initiated when entering the terminal phase of their illness to reduce the need for crisis management.
- Clear referral pathways for specialist palliative care are known and understood.
- Data is collected and used to determine that clear palliative care referral pathways are followed.

5. Access

- Data is collected to allow strategic planning about gaps in services and includes the changing demands on the services and the changing population.
- A planned approach is developed to achieve the optimum services for the population that is served.
- All consumers have access to appropriate rehabilitation and palliative care services as needed.

6. Continuity and care coordination

- A process is developed for effective communication between service providers.
- The involvement of GPs at all relevant stages of care is encouraged and facilitated.
- Systems are established that ensure efficient and effective processes for treatment, care and delivery; for example, appointment scheduling, availability of investigations for appointments and meetings, communication processes, treatment protocols, referral protocols.
- Roles and responsibilities for communicating within and between teams are clearly defined and agreed by the multidisciplinary team and understood.
- Treatment and discharge planning considers all the consumers' and carers' ongoing needs and planned treatment, and ensures communication with the GP and clinicians who will provide the next phase of treatment.
- Timely communication of relevant information occurs between service providers. This information may include diagnosis, interventions and management plan, contact details of the primary health professional, discharge medications, advice relayed to the patient, relevant referrals and followup plan.
- Consumers receive written individualised information about their ongoing care.

6. Elements of structural components

This section describes the essential elements of the structural components that need to be present in health services to ensure that safe and high quality cancer care is being delivered. The essential elements have been developed as criteria to focus improvement activities, monitor ongoing progress and evaluate the achievement of safe and high quality cancer services

1. Clinical governance

- An appropriate governance structure is developed by the Integrated Cancer Service that ensures coordinated and high quality cancer services across Victoria through strong leadership, management, committee structures, planning, data reporting and development.
- Goals, priorities and systems for ensuring high quality patient care and services are clearly defined, based on Victorian Department of Human Services policy and directions and Integrated Cancer Services priorities, and link to the improvement goals of the participating health services.
- Roles and responsibilities for enacting the safety and quality improvement program within Integrated Cancer Services and within participating health services are clearly delineated and supported and provide for a multidisciplinary team based approach to quality.
- Accountability is allocated to senior clinicians for ensuring that patient care and services are effective and appropriate, and are based on current best practice, including relevant national, international and local research and standards. They must also ensure that this is monitored through relevant reporting and committees.
- There is a planned and coordinated approach to safety and quality monitoring and improvement that links with health service quality programs, eliminating duplication of activities and effort.
- Integrated Cancer Services quality improvement programs are guided by a plan that describes:
 - how the goals and priorities of the program are developed, based on best benefit for patients
 - how the program links with associated health services quality and accreditation programs
 - communication mechanisms between quality units and Integrated Cancer Services and between participating health service boards and Integrated Cancer Services
 - improvement roles and responsibilities
 - support and process for working with consumers to improve care and services
 - systems for identification and management of risk
 - systems for data collection, analysis and reporting
 - a systems approach to improvement that supports and enables staff to identify safety and quality issues, engage in a collaborative team based approach to improvement and to evaluate the effectiveness of their participation
 - how professional, legislative and accreditation/certification standards and evidence are applied to care and services
 - the improvement cycle methodology and tools used to assist staff to effectively plan, implement, evaluate, report and embed improvements
 - how improvement activities will be undertaken between disciplines, departments and organisations in tumour streams across the care continuum
 - how the program's effectiveness will be evaluated.

- A reporting process is developed that encourages achievement of, and reports progress with, the safety and quality goals and priorities, key risk areas in the quality dimensions and relevant professional, state and local clinical indicators. This includes a description of how the data are considered and acted on, with a focus on clinician involvement in analysing and acting on the data.

2. Workforce credentialling and scope of practice

- Health services with governance of cancer services are responsible for determining credentialling and scope of practice for cancer clinicians.
- All medical cancer clinicians are credentialled and their scope of practice determined based on a set of criteria consistent with the national standard. Consideration should be given to:
 - eligibility for professional registration held and current entitlement to practice
 - qualifications and training, including undergraduate, postgraduate and special training with respect to privileges requested
 - clinical experience, competence and integrity in the field of expertise in which privileges are sought
 - demonstrated commitment to evidence-based care and practice and a multidisciplinary approach to care
 - respect for the role of patients in their own care
 - whether the candidates participate in and subject the results of their clinical work to quality review mechanisms including clinical audit, peer review and risk management processes
 - acceptable and safe practice as evidenced by personal history of complaints, professional body investigations, indemnity and legal records
 - communication skills as demonstrated with patients, families, communities and the health care team
 - collaboration skills as demonstrated by effective interdisciplinary team activities
 - academic and/or research skills, including continuing education, aimed at the attainment of best practice models and practices.
- Non-medical cancer clinicians have their registration and currency of practice checked by their employing organisation annually.
- Integrated Cancer Services and health services work together to achieve the optimum skills mix and sustainable workforce for the cancer population served and for each consumer.

3. Measurement for improvement

- There is a planned schedule of regular review and improvement of key aspects of cancer care and services discussed in each dimension of cancer quality care. This schedule uses data collection and analysis tools and techniques as described in Clinical excellence in cancer care, and those supported by the participating health services within the Integrated Cancer Service.
- A system of valid and reliable data collection, including clinical audit data of effectiveness and appropriateness, is supported to inform high quality cancer care and services.
- All data collected is fed into a quality program that ensures discussion, action to improve if indicated, and follow up to ascertain the effectiveness of the action. The program uses a range of quality tools for data collection and analysis, implementation of improvement interventions, change management and spread and sustainability of improvements.
- Integrated Cancer Services participate in peer review of their cancer services quality program.
- Cancer services participate in achieving quality goals, quality performance reporting and improvement activities, as required by their governing health service quality program which has links to the Integrating Cancer Services quality program.

4. Consumer participation

- Regular and structured feedback is sought from consumers with cancer, their carers and the community, about a range of aspects of cancer services, such as access to and continuity of services, communication with health professionals, effectiveness of treatment in alleviating symptoms and opportunity to participate in care.
- Consumer and carer participation in improvement is integrated into the Integrated Cancer Services safety and quality improvement program and activities.
- A process is built into care plans to ensure consumers with cancer and their families are provided with information and opportunity to collaborate with clinicians on treatment decisions.
- Consumer participation is monitored through regularly receiving information on areas such as:
 - demonstrated use of consumer and carer feedback and complaints about service delivery to make improvements
 - numbers of consumers and carers involved in structured service improvement
 - updated treatment, safety or service information and processes as a result of individual or collective consumer involvement.

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Appendix 1: Performance measurement tools

Healthcare measurement for improvement may include the following measuring methods (NICE 2002, NSW Department of Health 2001, CCA and ACN 2005, Brand et al 2005, Scobie et al 2006, Hughes and Mackay 2006, Scrivens et al 2003).

Clinical audit

Clinical audit can be undertaken electronically or manually by individual clinicians or by teams of health care professionals. Data can be collected from a number of sources, including paper-based medical (clinical) records or reports, or from electronically stored administrative databases. There are a number of paper-based and electronic audit tools available to abstract and collect the data (Brand et al 2005). Online data collection of individual clinician audit data has been successfully implemented for a number of audits, with the NHS developing a cancer-specific online audit tool for individual and aggregate data collection and analysis (CQuINS, 2006).

Medical record review

As well as being a method used for detecting incidents related to consumer care, medical record review may also be used to assess the clinical performance of an organisation. For example, medical record review may be used to assess adherence to guidelines, where the medical record is used as the source of the data. Medical records will be a source of data for each of the dimensions of quality and associated indicators.

Benchmarking

Benchmarking is the process of measuring clinical care and outcomes against other, and preferably better performing, comparable health care organisations or practices. Although benchmarking is predominantly carried out by health care organisations, it may also be performed by individual clinicians using standards set by their relevant professional body. *Clinical excellence in cancer care* will enable benchmarking within cancer units and within and across Integrated Cancer Services for both generic and tumour-specific elements.

Peer review

Peer review is a professional development initiative in which a clinician's professional performance is reviewed and evaluated by peers from the relevant profession. Peer review is an important part of the quality improvement cycle. The aim of peer review visits and meetings is to improve the treatment of patients and maintain high standards of performance. A peer review meeting will ideally be driven by guidelines regarding the form, content and documentation of discussions.

Performance indicators

Indicators are a measure that screens for the occurrence of a particular medical event. Indicator sets assist in assessing whether or not a standard of performance in patient care is being met. As a rate-based measure, indicator sets do not provide definitive answers, but are designed to indicate potential problems in organisational or clinical performance that require further investigation. Indicators are used to assess, compare and determine the potential to improve care.

There are numerous categories of performance indicators available against which to assess organisational and clinician performance, including clinical indicators and patient safety indicators. There are also specialist indicators specific to particular areas of health care (for example, internal medicine indicators, surgical indicators and radiation oncology indicators). Many of these have been developed through professional colleges and associations and are used as part of Australian Council on Healthcare Standards accreditation.

Indicator sets can vary in their applicability or usefulness, and the selection of the most appropriate clinical indicators against which to assess clinical performance requires careful consideration. It is essential that the indicators used are meaningful, scientifically sound and can be generalised and interpreted. To achieve this, indicators, as with all quality measures, must be designed and implemented with scientific rigour. Prior to selecting indicators, consideration must be given to what will be done with the information collected, as the collection process, the generation of actions and the review and implementation of these actions is resource-intensive.

