Standards for Chemotherapy Services in South Australia

November 2010

Government of South Australia
SA Health

The South Australian Cancer Clinical Network Steering Committee has overseen the development of the *Standards for Chemotherapy Services in South Australia 2010* with the view that their statewide implementation will support a common framework for safe, high quality practice. The standards will also enable monitoring of competence and benchmarking of clinical services against identified minimal requirements for varying complexities of care.

Prepared by Tracey Doherty: Deputy Chair, Cancer Clinical Network Steering Committee

Endorsed by the Statewide Cancer Clinical Network Steering Committee on 5th November 2010

Contents

Standards for Chemotherapy Services in South Australia 2010

Executive Summary

South Australia has an aging population and as cancer is predominantly a disease of the aging, the number of people with cancer is increasing. This continues to be a growing challenge for our health system, workforce and community. The *Standards for Chemotherapy Services in South Australia* (the *Standards*) are one of the first in a group of planned documents designed to support the health system to meet this growing challenge and ensure that South Australians have equity of access to high quality cancer care as close to home as safely possible.

The *Standards for Chemotherapy Services in South Australia* are designed to guide the continuous improvement of services by identifying and describing the minimum workforce, infrastructure and support services necessary to deliver safe, high quality chemotherapy. They have developed through the review and incorporation of a range of state, national and international reference documents and guidelines combined with broad multi-disciplinary consultation across the South Australian health care system. The South Australian Cancer Clinical Network Steering Committee has overseen the development of these *Standards* with the view that their statewide implementation will support a common framework for safe, high quality practice and enable monitoring of competence and benchmarking of clinical services against identified minimal requirements for varying complexities of care.

The delivery of safe, high quality chemotherapy is reliant on ensuring provision of care in the most appropriate service setting which has capacity and capability to meet the individual patients' current and anticipated health needs and risks. These needs and risks are identified through comprehensive clinical assessment of the patient and in consideration of the known risks and complexities in the delivery and supportive care requirements of low, medium and high risk chemotherapy. Service requirements are supported by a chemotherapy service delineation model to better enable safe and effective cancer care as close to the patients home as possible. Risk stratification and service delineation are addressed in section 1 of this document.

Utilisation of statewide chemotherapy standards aim to enable all current and developing chemotherapy services to meet, monitor and maintain minimum safety and quality requirements. These standards comprise section 2 of this document and cover ten key areas:

1. Governance
2. Workforce, education and competency
3. Timely access, integration and coordination of care

4. Multi-disciplinary care, comprehensive patient assessment and chemotherapy planning
5. Patient/carer education and consent
6. Chemotherapy prescribing
7. Assessment and monitoring of patients on chemotherapy
8. Provision of supportive care
9. Safe handling, administration and disposal of chemotherapy
10. Intrathecal chemotherapy and recommendations to reduce the risk of error with vincristine

To support the *Standards for Chemotherapy Services in South Australia*, a self-evaluation and implementation planning matrix has been developed (appendix 2) to enable identification and reporting of service improvement achievements and gaps.

The *Standards* are intended as a living document and will be reviewed bi-annually and as required by the Cancer Clinical Network Steering Committee.

Scope

For the purpose of this document the term ‘chemotherapy’ is inclusive of all drugs including cytotoxic therapies and other hazardous substances used in the treatment of cancer such as monoclonal antibodies and kinase inhibitors. It does not include hormonal therapies.

The scope of the *Standards for Chemotherapy Services in South Australia* covers chemotherapy provided to cancer patients of all ages and in any service setting. It also includes chemotherapy administered for a non-malignant diagnosis (e.g. Multiple Sclerosis) within a chemotherapy/cancer service.

The underlying quality and safety principles of this document may also be applicable to other service settings where similar drugs are utilised.

The purpose of this document

The *Standards for Chemotherapy Services in South Australia* support the aim to increase the number of patients able to have chemotherapy closer to home whilst establishing the need for safety and quality as a priority over convenience. They are designed for services currently providing chemotherapy, as well as services planning to (re)commence chemotherapy provision.

Standards offer a common framework for safe, high quality practice and enable monitoring of competence and benchmarking of clinical services against identified minimal requirements for varying complexities of care.

The Standards of Chemotherapy Services aim to:

- facilitate planning and development of services to the level necessary to meet the needs of the relevant catchments’ population
- define relevant areas of responsibility for individual health units within an integrated health care system
- define the necessary workforce skills within the health services or accessible to the health service to support the delivery of chemotherapy
- define the necessary infrastructure within the health service or accessible to the health service to support the delivery of chemotherapy
- define requirements relating to the establishment of referral practices to facilitate shared care or the timely transfer of care between different health services/ providers as determined by the patient’s needs

Standards may be useful when a regional health service or clinical unit:

- undertakes routine risk assessment, review, monitoring and benchmarking of its service
- plans to (re)commence providing chemotherapy services
- wishes to commence providing a higher complexity level of care or higher risk treatment

It is recognised that currently not all sites within the South Australian health system providing chemotherapy services will completely meet all standards. To support the principle of providing services as close to home as safely possible, a self assessment tool has been developed (appendix 2). This tool is intended to assist sites to identify current capacity for safe service provision and also highlight areas for improvement initiatives over the following twelve months to maximise their ongoing chemotherapy service capability.

The *Standards* are intended as a living document and will be reviewed bi-annually to reflect updated knowledge, criteria and feedback. The usefulness of the chemotherapy service delineation, standards and tools outlined in this document will also be monitored and evaluated.

Glossary

Accreditation - Public recognition of achievement by an organisation, of requirements of a standard.

Benchmarking - A systematic and continuous measurement process; by means of comparing and measuring an organization's processes against other organisations.

Cancer journey - An individual's experience of cancer, from screening and detection, diagnosis and treatment, to recovery or 'living with cancer' through to palliative care.

Care coordination - The delivery of services by different providers occurs in a coherent, logical and timely manner, consistent with the person's medical needs and personal context.

Credentialing - A formal process for defining the clinical responsibilities of medical practitioners and other health care providers within a particular health care institution or wider service. It serves to verify that clinicians are qualified and competent to undertake specific practices within explicit settings.

Competency - The combination of skills, knowledge, attitudes, values and abilities that underpin effective and/or superior performance in a profession/occupational area.

Governance - The set of responsibilities and practices, policies and procedures, exercised to provide strategic direction, ensure objectives are achieved, manage risks and use resources responsibly and with accountability.

Infrastructure – The building blocks (such as information systems, workforce, policy and regulatory framework) necessary to accomplish the activities of health protection, illness prevention and health promotion.

Intrathecal chemotherapy - Treatment with drugs that are injected into the fluid surrounding the brain and spinal cord (cerebrospinal fluid).

Key performance indicators - quantifiable measurements to periodically assess the performances of organizations, business units, and their division, departments and employees.

Monoclonal antibody— Highly specific, purified antibody (protein) derived from only one subset of cells and which recognizes only one antigen or cell binding site.

Integrated health service – A network of specialised health service components within the general health system, coordinated across inpatient and community settings, to ensure continuity of care for consumers.

Multidisciplinary care - An integrated team approach to health care in which Medical, nursing and allied health care professionals consider all relevant treatment options and develop collaboratively an individual treatment plan for each patient.

Nurse Practitioner - a registered nurse educated and authorised to function autonomously and collaboratively in an advanced and extended clinical role.

Performance status - Is an attempt to quantify cancer patients' general well-being.

Regimen - A plan of treatment, including doses, scheduling, and duration of treatment.

Risk stratification – is a medical decision-making tool whereby a constellation of activities can determine the likelihood of a event or condition.

Scope of clinical practice - The extent of an individual health professional's clinical practice within a particular organisation based on the individual's credentials, competence, performance and professional suitability, and the needs and the capability of the organisation to support the health professional's scope of clinical practice.

Supportive Care - The prevention and management of the adverse effects of cancer and its treatment. This includes management of physical and psychological symptoms and side effects across the continuum of the cancer experience from diagnosis through anticancer treatment to post-treatment care.

Vesicant - An agent capable of causing tissue destruction.

Background

One in three South Australians experience cancer during their lifetime. South Australians with cancer receive high quality cancer care. This is reflected in survival rates comparable with other parts of Australia that are not only at the high end of the international range but are improving progressively over time. Nevertheless, with South Australia's aging population and the increasing number of people with cancer, this continues to be a growing challenge for our health system, workforce and community[1]. Strategic service planning aims to better enable the health system to meet this growing challenge and ensure that South Australians have equity in access to high quality cancer care as close to home as safely possible.

South Australia's Health Care Plan

South Australia's Health Care Plan 2007-2016[2] has been built on a strong commitment from Government to ensure the future sustainability of quality health services across the continuum of care from within hospitals extending to community facilities in South Australia. *South Australia's Health Care Plan* has provided the framework and the guiding principles for both health system reform and reorientation of services to meet growing population demand as well as the future challenges of health service delivery.

Clinical Service Delineation

The *Clinical Service Delineation for Planning of Health Facilities in South Australia*[3] document was prepared by SA Health in 2008 to support the implementation of *South Australia's Health Care Plan* and to guide the *continuous* development within hospital facilities of safe and quality health care services. It is a living document, responsive to the developing service systems, new evidence and technologies, and the changing population demands for services across the continuum of care. The document details the proposed level of clinical services that may apply within a health facility. The six (6) Clinical Service Levels provide the descriptors for essential service requirements dependent on the type of facility, specialty, catchment area and funding, together with workforce availability currently and into the future. The descriptors outline the levels of resource requirement across the continuum of care to support a clinical function with Level 1 services identifying the least complex service in terms of resources required, up to Level 6 representing the most complex service. Each clinical service is to be planned and developed within these parameters, which are specific to the service and the regional services context.

1 Cancer Council South Australia and the South Australian Department of Health (2009), 'State-wide cancer control plan 2010-2015', Government of South Australia, Department of Health and the Cancer Council South Australia: Adelaide

2 South Australian Department of Health (2007), 'South Australian Health Care Plan 2007-2016: The South Australian Governments plan for health care over the next 10 years', Government of South Australia: Adelaide

3 SA Health. Clinical Service Delineation for Planning of Health facilities in South Australia. Adelaide: Government of South Australia; 2008

Statewide Cancer Control Plan

The *Statewide Cancer Control Plan 2006 -2009* was developed in response to the Generational Health Review by the SA Department of Health (SA Health) in collaboration with the Cancer Council South Australia (CCSA). This plan has recently been reviewed and the revised *Statewide Cancer Control Plan 2011 – 2015*[4] continues to promote the systematic application of current knowledge and investment to generate new knowledge and to reduce the impact of cancer. It articulates principles and sets goals against which strategies in cancer control should be considered and measured. It recommends priority programs and services which will accelerate cancer control by reducing cancer incidence, improving cancer survival and improving the quality of experience and life for people with cancer, their carers and families. Recommendations of the plan focus on six (6) key areas:

1. Cancer prevention and early detection
2. Optimising cancer care
3. Infrastructure planning and service development
4. Workforce planning for cancer control
5. Cancer control research
6. Cancer information

Cancer Clinical Network

Clinical Networks were established to increase the level of clinician involvement in the planning of health services, to find ways to better coordinate the delivery of those services, to ensure better health outcomes for all South Australians and to ensure a strong, sustainable health workforce[5].

The Cancer Clinical Network is one of the first networks developed within South Australia (SA) to link doctors, nurses, allied health professionals, pharmacists, GPs, non-government organisations and consumers to work together to assist in fully integrating cancer service provision. Implementation of the *Statewide Cancer Control Plan* is the primary objective of the cancer network and all strategies developed and recommended for implementation are in-line with this plan.

The Cancer Clinical Network Steering Committee has overseen the development of the *Standards for Chemotherapy Services* as a first step in cancer quality improvement planning.

4 SA Health. Statewide Cancer Control Plan 2011-2015. Adelaide: Government of South Australia; 2008

5 Government of South Australia, South Australia's Health care Plan 20007 -2016

Development of the South Australian Standards for Chemotherapy Services

The *Standards for Chemotherapy Services* have been created in line with *South Australia's Health Care Plan*[6], the *Statewide Cancer Control Plan 2011 - 2015*[7] and *Clinical Service Delineation for Planning of Health Facilities in South Australia*[8]. The standards are also reflective of two recent major reviews of cancer services within South Australia.

The quality and safety requirements associated with chemotherapy are generally consistent across the world and tools such as standards, guidelines, and quality frameworks have been developed by multiple national and international expert groups. These documents have provided a sound basis for development of the SA Standards for Chemotherapy within the context of the SA health system.

It is recognised that not all cancers and/or cancer treatments present the same level of risk and therefore chemotherapy provision should be delineated within the health regions to ensure that care is provided in an environment that has adequate infrastructure, workforce, resources and support services to provide consistent and sustainable care.

It is recommended that these standards be considered by service planners and clinicians as a companion document to *South Australia's Health Care Plan* and *Clinical Service Delineation for Planning of Health Facilities in South Australia* when considering provision of sustainable, accessible, safe and quality chemotherapy services within an Integrated Cancer Service model for South Australia.

Implementation of these standards will be the responsibility of the each of the SA Health Regions and oversight of standards implementation will be through the Cancer Clinical Network Steering Committee to the Clinical Senate.

Chemotherapy provision within an Integrated Cancer Service model

Formalised and clearly defined links between service providers within an Integrated Cancer Service model will better enable all patients to have timely, accessible, streamlined, comprehensive and high quality care as close to home as safely possible.

Chemotherapy treatment will be evidence based and supported through the implementation of an electronic patient management, decision support and prescribing system.

6 South Australian Department of Health (2007), 'South Australian Health Care Plan 2007-2016: The South Australian Governments plan for health care over the next 10 years', Government of South Australia: Adelaide

7 SA Health. Statewide Cancer Control Plan 2011-2015. Adelaide: Government of South Australia; 2008

8 SA Health. Clinical Service Delineation for Planning of Health facilities in South Australia. Adelaide: Government of South Australia; 2008

Anticipated outcomes from an integrated model include:

- Access to well coordinated, safe, high quality chemotherapy at a location as close to home as possible
- Maximised access to chemotherapy in most rural and metropolitan communities for common cancers and patients requiring low risk treatment, monitoring and support.
- Maximised access to chemotherapy in general hospitals and sites identified as having necessary specialist workforce and infrastructure for common cancers requiring moderate risk treatment, monitoring and support.
- Streamlined, well coordinated access to chemotherapy within specialist cancer services for rare cancers and those requiring high risk or complex treatment, monitoring and support.

Workforce Implications

The workforce employed to provide chemotherapy services must be credentialed and/or educated and assessed as competent according to current SA Health policies, standards and endorsed guidelines or frameworks. Governance and monitoring of credentials, scope of practice, clinical privileges, education and competency maintenance remains the responsibility of the employing health service[9]. It is anticipated that continuous development of services in-line with the chemotherapy standards will support progress towards a sustainable and robust cancer workforce.

In addition to professional qualifications, credentialing and authorisation requirements, workforce related competency factors that must be considered in provision of chemotherapy services include, but are not restricted to:

- level of and currency of knowledge and education in cancer, cancer care and chemotherapy including supportive care (side effects, symptom management and psychosocial care to address the emotional, social, spiritual, informational and financial needs of the patient and carer/family)
- level of skill and experience in assessment of the cancer patient, particularly the patient receiving chemotherapy
- level of and currency of skill, experience and competency in administration and monitoring of cancer treatment
- access to adequate number and skill mix of staff to consistently provide required care or service

9 South Australian Department of Health (2009), The Policy for Credentialing and Defining the Scope for Clinical Practice for Medical and Dental Practitioner, April 2009: Adelaide

- convenient and immediate access to up-to-date evidence based policies, procedures and guidelines
- level of skill and/or experience in communication and networking within a multi-disciplinary framework and across a variety of sites and services

Implementation and governance of the Standards for Chemotherapy Services in South Australia

Implementation of the *Standards* within health sites will be the responsibility of health regions and the Directors of Cancer Services within those regions, with specific implementation arrangements to be developed by the regions according to local requirements and processes.

Oversight of this implementation will be by the Cancer Clinical Network Steering Committee, who will report to the SA Health Clinical Senate. The Cancer Clinical Network will require health regions to submit a self assessment (as outlined in appendix 2) within one year of the endorsement of these standards for each site that is delivering chemotherapy. Each site must demonstrate at least partial compliance with all standards within this timeframe, and plans for improvement to progress to full compliance within a further 12 months. An annual review/ confirmation of compliance will be required to be provided to the Cancer Clinical Network thereafter.

Sites wishing to (re)commence chemotherapy after the endorsement of these standards will be required to demonstrate at least partial compliance with all standards before the (re)commencement of chemotherapy service provision, with a plan to progress towards full compliance within a further 12 months.

An informal review of the usefulness of the chemotherapy service delineation, standards and tools outlined in this document will be conducted 12 months after their formal endorsement. A formal review and updating of the chemotherapy service delineation, standards and tools will occur 2 years after their formal endorsement, and bi-annually (or as required) after that to ensure they reflect updated knowledge, criteria and feedback. The review, evaluation and updating of the standards will be overseen by the Cancer Clinical Network Steering Committee.

Chemotherapy Risk Stratification

Risk assessment of both the patient and the planned treatment is critical to the safe provision of chemotherapy services. Risk matrices can aid in the identification and stratification of anticipated risks (Table 1) and enable the key factors of patient safety to be considered in a structured and consistent way. Factors to be considered in the risk assessment for the patient planned for chemotherapy include:

- patient age, comorbidities and performance status
- patients' current and anticipated disease and treatment risks
- ongoing review and monitoring requirements
- route of planned treatment and risks relating to administration
- risk of significant toxicity relating to high dose and/or combination therapy
- complexity of supportive care drugs and/or fluid requirements relating to the chemotherapy protocol
- patient and clinician familiarity, education and recent experience with planned chemotherapy protocol

A focus group of South Australian cancer clinicians held in June 2009 aimed to articulate and clarify the essential factors which contribute to a chemotherapy protocol being considered as low risk, medium risk or high risk. The following risk stratification table was initially developed utilising outcomes from the focus group and then further edited in response to multi-disciplinary feedback on the draft chemotherapy standards during their development. It is anticipated that this table will be further refined through utilisation and subsequently revised during the first planned review of these standards. The table relates to chemotherapy administration for adults and it is expected that the supervising consultant oncologist/haematologist would evaluate these risk factors in combination with individualised clinical assessment of the patient when considering the safety and appropriateness of chemotherapy administration in various locations.

The vast majority of chemotherapy for paediatrics is considered as high risk at this point in time.

Table 1 Risk Stratification Matrix

Low Risk	Medium Risk	High Risk
Chemotherapy regimen suitable for monitoring via general practitioner between less frequent reviews (may be via telemedicine) by supervising haematology/oncology service > Patient stable, with performance status equivalent to ECOG[10] 0, 1 or 2. > Patient not considered at increased risk due to age or comorbidities > No concerns regarding patients ability to comply with treatment > Uncomplicated vascular access requirements > Non-vesicant agents > Single agent chemotherapy > Standard or low dose chemotherapy > Low risk of grade 3 and 4 toxicities > Low risk of dose limiting side effects requiring dose adjustment > Low risk of adverse drug reactions > Low complexity of premedications, supplementary treatments and hydration requirements > No planned requirement for blood results within a 24 hour timeframe	Chemotherapy regimen suitable for monitoring via general practitioner, nurse practitioner or general physician with alternate reviews (may be via telemedicine) by supervising haematology/oncology service > Patient stable, with performance status equivalent to ECOG 0, 1 or 2 > Vascular access device (VAD) required > Vesicant agents included > Combination chemotherapy > Standard or low dose chemotherapy > Moderate risk of grade 3 toxicities, low risk of grade 4 toxicities > Moderate risk of dose limiting side effects requiring dose delay or modifications. > Risk of adverse drug reaction requiring medical emergency management > Complex premedications, supplementary treatments and hydration requirements > Requirement for standard blood results within 24 hours	Chemotherapy regimen only suitable for monitoring and supervision by specialist haematology/oncology service > Patient may be medically unstable with variable performance status > Intrathecal chemotherapy > Intracavity or intravesical chemotherapy > High dose chemotherapy > Moderate to High risk of grade 3 or 4 toxicities and side effects > High risk of requirement for dose modifications > High risk of adverse drug reactions requiring emergency management > Complex premedications, supplementary treatments and hydration requirements which may require inpatient stay > High intensity phase of treatment > Uncommon and highly specialised drugs > Anticipated requirement for urgent blood/pathology results

[10] Eastern Cooperative Oncology Group

Chemotherapy Service Delineation

Within the six service delineation levels described in *Clinical Service Delineation for Planning of Health Facilities in South Australia*[11], haematology and oncology services are categorised as medical sub-specialties. To support medical sub-specialties, general medicine services and clinical support services such as pharmacy, pathology, emergency department and critical care services at the relevant level also need to be in place.

Building on the concept of low, medium and high risk chemotherapy as described in table 1, a clinical service delineation for chemotherapy services (table 2) has been developed which recommends clinical service delineation levels that may be better equipped to manage the various levels of chemotherapy risk.

Within the table it is recommended that low risk chemotherapy be provided by level 1-3 services, medium risk chemotherapy may be provided by Level 4 services and high risk chemotherapy may be provided by level 5 – 6 services.

All chemotherapy services irrespective of their level must also meet the minimum chemotherapy standards as outlined in section 2 of this document.

11 SA Health. Clinical Service Delineation for Planning of Health facilities in South Australia. Adelaide: Government of South Australia; 2008

Table 2 – Clinical Service Delineation for Chemotherapy Services

	Level 1-3 Chemotherapy Services	Level 4 Chemotherapy Services	Level 5-6 Chemotherapy Services
General description/summary	> Manage low risk chemotherapy for common cancers in stable patients > Standard infrastructure > General workforce with additional chemotherapy competencies	> Manage medium risk chemotherapy for common cancers in stable patients > Moderate to highly developed infrastructure > Specialist workforce	> Manage high risk/complex chemotherapy, uncommon/rare or high risk cancers and unstable patients > Highly developed infrastructure > Highly specialised workforce
Service setting examples	> Community Hospitals > Inner Country Health services > Local Area hospitals > Primary health care settings > Nursing homes > Patient homes	> General Hospitals > Community hospitals with well developed cancer specialist workforce and infrastructure requirements	Tertiary Hospital providing comprehensive cancer services with dedicated multi disciplinary haematology and/or oncology specialty and supportive care services.
Governance requirements	Outpatient/community chemotherapy provision must be under the supervision of a level 5 or 6 Haematology or Oncology service.	Outpatient/community chemotherapy provision must be under the supervision of a level 5 or 6 Haematology or Oncology service.	> Provides supervision of chemotherapy for other rural and metropolitan services. > May have state-wide referral and coordination role > Some complex and rare cancers and cancer treatments will be treated / available in level 6 services only.
Types of chemotherapy provided	Outpatient/community chemotherapy for common solid tumours and low grade haematological malignancies	As for level 1-3 plus: Outpatient chemotherapy for common solid tumours, some lymphomas and other	As for level 4 plus: Complex and or high risk inpatient and outpatient chemotherapy by cancer specialist

	Level 1-3 Chemotherapy Services	Level 4 Chemotherapy Services	Level 5-6 Chemotherapy Services
	> Low risk oral chemotherapy > Single agent, non-vesicant, low toxicity parenteral chemotherapy	common low grade/low risk haematological malignancies > Medium - High risk oral chemotherapy > Combination and/or vesicant parenteral chemotherapy with moderate complexity and low to moderate toxicity.	workforce > Most malignant haematology (acute leukaemia, high risk lymphomas) > Bone marrow transplant services > Majority of acute paediatric oncology & malignant haematology > Clinical trials program > Can provide concurrent radiotherapy
Clinical review and medical consultation requirements	> Access (on site, visiting or tele-medicine) to general practitioner (GP) or cancer nurse practitioner (NP) or oncologist/haematologist for clinical review prior to each cycle of chemotherapy. > Access (on site, visiting or tele-medicine) to general practitioner (GP) or cancer nurse practitioner (NP) or oncologist/haematologist for surveillance, clinical review and management of low complexity symptoms of disease and toxicities of treatment. > Access (on site, visiting or tele-medicine) to general practitioner (GP) or cancer nurse practitioner (NP) or oncologist/haematologist for	As for level 1-3 plus: > Access (on-site, visiting or tele-medicine) to a general physician, paediatrician (for all paediatric patients), haematologist or oncologist for consultation, supportive care and outpatient treatment > Areas of responsibility include monitoring and surveillance for most cancers > Inpatient management of chemotherapy toxicity	As for level 4 plus: > Onsite oncology and/or haematology consultants for provision of comprehensive chemotherapy service and supervision of care provided at level 1-6 chemotherapy services (visiting or tele-medicine). > Onsite paediatric oncology or haematology consultant for provision of comprehensive paediatric chemotherapy service and supervision of paediatric cancer care provided at level 1- 6 services (visiting or tele-medicine). > Onsite access to advanced trainees (oncology or haematology registrars),

	Level 1-3 Chemotherapy Services	Level 4 Chemotherapy Services	Level 5-6 Chemotherapy Services
	surveillance, monitoring and survivorship care for low risk, common cancers.		cancer nurse practitioners (NP) or nurse practitioner candidates (NPC) for clinical review prior to each cycle of chemotherapy. > Onsite access to advanced trainees (oncology or haematology registrars), cancer nurse practitioners (NP) or nurse practitioner candidates (NPC) for surveillance, clinical review and management of low complexity symptoms of disease and toxicities of treatment. > Monitoring, surveillance and survivorship care for rare or high risk cancers
Staff chemotherapy competency requirements	Chemotherapy competency (see Standard 2) is essential for all clinicians involved in the administration of chemotherapy	As for level 1-3 plus: > On-site access to specialist cancer nurses with comprehensive chemotherapy competency	As for level 4 plus: > Dedicated, on-site specialist cancer workforce with comprehensive chemotherapy competency including medical staff with competency in administration of intrathecal chemotherapy

Clinical Support Service requirements			
Pharmacy services	> Access to drugs supplied on individual prescription required > Service provided on-site, or overseen by pharmacist located elsewhere > Community based medication review services available	On-site or visiting pharmacy service available and includes > Pharmacy controlled drug distribution to inpatients and outpatients > On-site or regional access to general clinical pharmacy service for inpatients and outpatients > On-site, visiting or remote access to cancer clinical pharmacist. > Access (on-site or external contract) to chemotherapy production services > Access to drug information. > Provision of chemotherapy drug monitoring, utilisation review and adverse drug reaction reporting > Additional requirements for moderate-high risk treatment regimes within this category include: > Pharmacist on call for 24 hours	> Clinical pharmacy service provided 7 days a week including participation in ward rounds, MDT meetings and outpatient services > Services include specialist cancer clinical pharmacists (on-site or visiting) > Provides clinical consultation to other hospitals as required > Has access to sterile manufacturing and IV admixture service including cytotoxic drug and parenteral nutrition (on-site or external contract). > May provide production pharmacy service for other sites.
Pathology services	Minimum access requirements include: > Local access to specimen collection > Specimens transferred to referral laboratory with frequency dependant upon available transfer	Minimum access requirements include: > Testing performed by health workers using suitable ‘point of care’ testing devices > Blood storage facilities available with some	> Comprehensive pathology service providing 24 hour on-site services > On-site or visiting Pathologists and Haematologists

	schedules > Storage and packaging for transport in accordance with regulation and guidelines	on site stock of O negative blood > QA activities in place under the supervision of a RCPA/NATA accredited laboratory Additional requirements for moderate-high risk treatment regimes within this category include: > On-site core pathology services available with on –call arrangements over 24 hours	
Emergency services	Minimum access requirements include: > Basic resuscitation equipment and drugs > Able to resuscitate and provide limited stabilisation prior to transfer to a higher level of care > Have identified referral/transfer pathways for cancer emergencies	Minimum access requirements include: > Local GPs rostered to provide 24 hour cover or on-site medical staffing (subject to volume) > Access to a range of specialist consultation > Appropriate skilled and experienced workforce to support service > Designated Emergency Service with assessment and treatment area and separate resuscitation facilities > Have local policies procedures and guidelines for management of cancer emergencies > Have identified referral/transfer pathways for cancer emergencies	> Designated emergency extended care service > Standardised policies , procedures and guidelines for management of cancer emergencies > Designated spaces with negative pressure capacity > Medical staffing provided by experienced Emergency Medical Officers 24 hours > Access to on-site specialist services > On-site IC/HD & CC service capacity > Capacity for invasive monitoring and assisted ventilation > Accepts transfers of appropriately triaged crucial care retrieval patients from other hospitals > On-site skilled and experienced multidisciplinary workforce > If a combined adult/paediatric service, designated paediatric treatment area with resuscitation facilities

Critical care services	Minimum access requirements include: > Capacity to provide appropriately skilled and experienced workforce for 'specialling' services until appropriate transfer can be arranged. > Identified referral/transfer pathways for critical care services	Minimum access requirements include: > Inpatient area suitable for patients requiring observation over and above that in general ward area > 24 hour medical cover to site > Access to a range of visiting Specialists including general physician > Appropriately skilled workforce available to support service as determined Additional requirements for moderate-high risk treatment regimes within this category include: > A designated HD Service > Ability to provide basic, multi-system life support usually for less than a 24 hour period > Ability to provide immediate resuscitation and short term cardio-respiratory support > Ability to monitor and prevent complications in moderate-high risk chemotherapy patients > On-site medical staffing	> Has an integrated ICU Service & HD service > Has a designated CC Service > Capacity to provide multi-system support > Extra-corporal renal supports > Has access to support invasive cardiovascular monitoring > Medical staffing provided by on-site medical staff and Specialists
Supportive care services	Supportive care services provided on-site or via partnership arrangement (local or virtual service) See standard 8	Supportive care services provided on-site or via partnership arrangement (local or virtual service) See standard 8	Supportive care services provided on-site and within community for inpatient and outpatient care See standard 8

Palliative care services	Palliative care services provided on-site or via partnership arrangement (local or virtual service)	Palliative care services provided on-site or via partnership arrangement (local or virtual service)	> Palliative care services provided on-site or via partnership arrangement with local hospital. > Must include ability to access inpatient palliative care

Section 2:
Standards Criteria

Utilisation of statewide chemotherapy standards aim to enable all current and developing chemotherapy services to meet, monitor and maintain the minimum safety and quality requirements necessary to ensure that known risks relating to chemotherapy are minimised and safety is maintained for all patients, staff and the community.

Services providing chemotherapy require a common framework for safe, high quality practice. The review of state, national and international reference documents and guidelines has led to the development of quality and safety standards covering ten key areas.

1. Governance
2. Workforce, education and competency
3. Timely access, integration and coordination of care
4. Multi-disciplinary care, comprehensive patient assessment and chemotherapy planning
5. Patient/carer education and consent
6. Chemotherapy prescribing
7. Assessment and monitoring of patients on chemotherapy
8. Provision of supportive care
9. Safe handling, administration and disposal of chemotherapy
10. Intrathecal chemotherapy and recommendations to reduce the risk of error with vincristine

To support the *Standards for Chemotherapy Services in South Australia*, a self-evaluation and implementation planning matrix has been developed (appendix 2) to enable identification and reporting of service improvement achievements and gaps.

1. Governance

1.1. Chemotherapy services have clearly documented local and regional governance arrangements consistent with the *South Australia's Health Care Plan*, the *Statewide Cancer Control Plan* and recommendations of the Statewide Cancer Clinical Network.

1.2. In line with clinical service delineation for chemotherapy services, all services meet the core specialty and clinical support services recommended to manage the risk level of chemotherapy provided within that service.

1.2.1. Directors of cancer services oversee and endorse formal links and memorandums of understanding within and across health regions to:

- maximise the provision of specialty and support services as close to home as safely possible
- enable timely access to distant services when required

1.3. Directors of cancer services oversee the continuous development and implementation of consistent/standardised protocols, procedures and models of care that support chemotherapy delivery within and across SA Health regions and service providers.

1.4. There are processes in place to enable monitoring of clinical and service outcomes including key performance indicators as outlined in the *Performance Indicator Framework for South Australian Cancer Services*[12].

1.5. Reports on the safety and quality of chemotherapy services are provided to local and regional clinical governance and contribute to planning for continuous service development.

1.5.1. Services utilise the Australian Incident Monitoring System (AIMS) or equivalent to enable risk-free reporting of error or near misses[13].

1.5.1.1. Error and near miss reports are reviewed and evaluated regularly (bi-monthly) at service level and summary reports are communicated via clearly identified regional governance processes.

[12] The South Australian Department of Health and The South Australian Cancer Network 2010, *Performance Indicator Framework for South Australian Cancer Services Version 1.0,* September 2010

[13] Clinical Oncology Society of Australia (2008), *Guidelines for the Safe Prescribing, Supply and Administration of Cancer Chemotherapy*, November 2008

1.5.1.2. All serious adverse events are formally reviewed via clearly identified local and regional governance processes.

1.5.2. Strategic planning for service development occurs in line with the *South Australia's Health Care Plan* and the *Statewide Cancer Control Plan*.

2. Workforce, education and competency

2.1. The Service has policies and procedures for provision and verification of credentialing and chemotherapy education and competency for all clinicians and support staff in line with SA Health policies, procedures, guidelines and frameworks. Alternatives from other jurisdictions may be used when a South Australian version is not available or is in need of review.

2.1.1. Only chemotherapy competent health care professionals prepare or administer chemotherapy.

2.1.1.1. The Clinical Oncology Society of Australia: *Guidelines for the Safe Prescribing, Supply and Administration of Cancer Chemotherapy*[14] list suggested knowledge and skills applicable to all health care professionals.

2.1.1.2. Pharmacists complete the SA health central training manuals for Pharmacy Services and Production Pharmacy Services as relevant to scope of work. These manuals are intended to provide a framework to ensure that all pharmacy staff receive appropriate levels of training and support to ensure the opportunity to learn and develop all the knowledge and skills necessary for them to fulfil their job role. The manuals are not intended to substitute the close supervision of staff undergoing clinical training.

2.1.1.2.1. *SA Health Central Training Manual – Clinical Pharmacy Services - Cancer and Chemotherapy*[15]. This manual is for all pharmacy staff working in clinical units caring for patients with cancer and / or receiving chemotherapy.

2.1.1.2.2. *SA Health Central Training Manual - Cytotoxic and other hazardous substances*[16]. This manual is for all pharmacy staff working in units preparing parenteral cytotoxic and other hazardous substances.

[14] Clinical Oncology Society of Australia (2008), *Guidelines for the Safe Prescribing, Supply and Administration of Cancer Chemotherapy*, November 2008

[15] South Australian Department of Health 2010, *Draft SA Health Central Training Manual – Clinical Pharmacy Services - Cancer and Chemotherapy*, October 2010 version

[16] South Australian Department of Health 2010, *Draft SA Health Central Training Manual- Cytotoxic and other hazardous substances,* October 2010 version

2.1.1.3. Nurses establish and maintain a minimum level of chemotherapy competence as outlined in the *State-wide Framework for Chemotherapy Education and Assessment 2010*[17] (currently under development).

2.1.1.3.1. Continuing education programs for nurses in chemotherapy and cancer care are consistent with the EdCan framework[18].

2.1.1.4. All new clinicians commencing in, or transferring to, a chemotherapy service or cancer speciality area must undertake or verify credentialing, chemotherapy education and competency assessment relevant to the risk level of chemotherapy provided within that service or area.

2.1.1.5. Services must ensure that further education is readily accessible when new or unfamiliar agents, protocols or equipment are utilised or when procedures change.

2.1.2. The service has a standard mechanism for providing opportunity for, and monitoring of, continuing competency. Annual competency assessment or verification is recommended.

2.2. Paediatric chemotherapy administration, especially in the acute phases of disease is managed by a specialised paediatric health facility, under the direct supervision of a paediatric oncologist/ haematologist.

2.2.1. When it is in the best interest for a paediatric patient and their family to access care outside of a specialist paediatric health facility this must occur in close consultation with a paediatric consultant and involve education, mentoring and support from the specialist site.

2.3. Services ensure there is sustainable access to nursing/clinical staff with skills and expertise in the use and care of Central Venous Access Devices (CVAD) such as Peripherally Inserted Central Venous Catheters (PICC) and Infusaports® relevant to clinical need.

2.3.1. All services maintain protocols and procedures relating to insertion and management of CVADs that utilise evidence

[17] South Australian Department of Health 2010, *State-wide Framework for Chemotherapy Education and Assessment; an Integrated Model for South Australia,* September 2010 version

[18] Cancer Australia 2008, *The National Cancer Nursing Education Project (EdCaN) (2008). National Education Framework – Cancer Nursing: A national professional development framework for cancer nursing*, Canberra 2008

based guidelines such as the Cancer Nurses Society of Australia CVAD guidelines[19] and the eviQ Cancer Treatments Online protocols[20]

[19] Cancer Nurses Society of Australia 2007, *Central Venous Access Devices: Principles for Nursing Practice and Education (2007) Guidelines*

[20] Cancer Institute NSW, *eviQ Cancer Treatments Online,* accessible online: www.eviq.org.au

3. Timely access, integration and coordination of care

3.1. Services have processes and rationale for care coordination that enables organised service delivery in accordance with the individual needs of the patient and in a manner consistent with quality and cost effectiveness principles.

3.1.1. Processes should ensure a smooth patient journey and minimise duplication of effort by different health professionals

3.1.2. Services utilise standardised guidelines and procedures to ensure adequate and timely patient access to clinical advice and clinical services within and after hours.

3.2. Services enable access to appropriate and cost effective transport and accommodation facilities are available for those patients needing to relocate for treatment.

3.3. The health service meets minimum operational and infrastructure requirements to enable reliable, sustainable and cost effective access to on-site services. This includes:

3.3.1. Patient, carer and staff accommodation for those who are required to travel to access or deliver services

3.3.2. Information and communication technology (ICT) services and processes to;

3.3.2.1. Facilitate remote/virtual access, consultation, team meetings and networking between sites, regions and providers

3.3.2.2. Support an electronic patient management system, with timely access to up to date treatment records and relevant pathology and radiology investigations for each patient. *Where this is not available electronically, access to all recent hard copy medical records and results must be available at each patient presentation.*

3.3.3. Local blood and diagnostic collecting facilities with staff trained in collection and specimen handling techniques. Results for routine blood tests are available within a 24-hour timeframe for all patients on medium to high risk chemotherapy and preferably within 48-hours for low risk chemotherapy.

3.4. Services administering chemotherapy to paediatric patients comply with the *Standards for the Care of Children and Adolescents in Health*

Services[21] in provision of a child safe and appropriate physical environment including access to:

3.4.1. natural light and age appropriate decorations/furniture as able

3.4.2. open spaces within a secure environment where a child can be observed and supervised at all times

3.4.3. provisions for parents to stay if required

3.5. Services have well documented formal communication arrangements between local practitioners and consultative haematology/oncology clinicians available 24/7 for advice, consultation and referral.

3.6. Services have standard procedures and processes for efficient and effective transfer of care to the most appropriate level service.

3.7. Services that do not have an oncology or haematology clinical pharmacist on-site have documented formal links and agreements with a recognised oncology clinical pharmacy service within South Australia for clinical advice, education and remote support.

3.8. Services that do not have specialist cancer nurses on site have documented formal links and agreements with a recognised level 4 – 6 chemotherapy service within South Australia for clinical advice, education, mentoring and support.

3.9. Services have standard communication processes for efficient and effective discharge planning, transition of care and follow up needs.

3.9.1. Services have established procedures for documentation and follow up for patients who miss clinic visits and treatments

[21] Paediatrics & Child Health Division, RACP, *Standards for the Care of Children and Adolescents in Health Services*, Nov 2008, accessible online: www.racp.edu.au

4. Multidisciplinary care, comprehensive patient assessment and chemotherapy planning.

4.1. All chemotherapy patients have the opportunity to have their case discussed by a cancer multi-disciplinary team.

4.1.1. Cancer multi-disciplinary teams utilise the South Australian Cancer Clinical Network endorsed Cancer MDT Terms of Reference

4.1.2. There is local or virtual access to tumour stream and other cancer multi-disciplinary teams

4.1.3. Sites maintain up to date contact details and adhere to standardised referral processes for multi-disciplinary teams

4.2. Prior to prescribing or administering chemotherapy the following information is available or ascertained:

4.2.1. Pathologic confirmation or verification of the initial diagnosis.

4.2.2. Initial cancer stage or current cancer status.

4.2.3. Complete medical history and examination that includes height, weight and assessment of organ specific function as appropriate for the planned regimen.

4.2.4. Complete medication history of all current medications including over the counter and complementary and integrative therapies (CIT)

4.2.5. Documentation of history of drug and non-drug allergies and other adverse drug reactions

4.2.6. Current psychosocial issues which may impact on care decisions including assessment of patients' comprehension regarding medication regimens, knowledge of disease, ability to manage self care and knowledge of available carer support or support services.

4.2.7. All recent investigations and pathology results to enable adequate assessment of patient response to and tolerability of previous chemotherapy.

4.2.8. For patients taking oral chemotherapy, the expected frequency of clinic visits or remote consultation and monitoring that is appropriate for the drug and the individual needs of the patient.

4.3. Final decisions on the initiation of a chemotherapy protocol or treatment plan are made at consultant level.

5. Patient/Carer Education and Consent

5.1. Before initiation of chemotherapy via any route, each patient (parent/caregivers/family as appropriate) is provided with verbal and written information. It is recommended that this includes the suggested content outlined in the Clinical Oncology Society of Australia: *Guidelines for the Safe Prescribing, Supply and Administration of Cancer Chemotherapy*[22]. Additional information recommended includes:

5.1.1. Information regarding diagnosis of cancer[23]

5.1.2. Current and/or long term goals of therapy

5.1.3. Before initiation of oral chemotherapy, each patient (in paediatric cases - parent/caregivers/family) is provided with additional verbal and written information consistent with the Society of Hospital Pharmacists of Australia (SHPA) *Standards of Practice for the Pharmaceutical Care of Patients Receiving Oral Chemotherapy*[24]. The SHPA standards are also summarised in the COSA guidelines[25]

5.1.4. Education materials must be appropriate for the patients/carers' reading level/literacy, language and understanding. Details of verbal and written patient education provided are documented in the patient record.

5.1.5. The education plan includes family, caregivers, or others based on the patients' preference[26], age and their ability to assume responsibility for managing therapy independently.

5.2. The service maintains a policy for obtaining and documentation of consent for chemotherapy.

5.2.1. The consent process follows appropriate professional and legal guidelines[27].

5.2.2. Informed consent includes details of both common and serious toxicities of treatment which have been discussed with the patient (in paediatric cases - parent/caregivers/family).

---

[22] Clinical Oncology Society of Australia (2008), *Guidelines for the Safe Prescribing, Supply and Administration of Cancer Chemotherapy*, November 2008

[23] Australian Government: Cancer Australia (2010), *Assessment of Cancer Care Perceptions and Experiences of People Affected by Cancer,* August 2010

24 Society of Hospital Pharmacists of Australia Committee of Speciality Practice in Cancer Services (2007), *SHPA Standards of Practice for the Provision of Oral Chemotherapy for the Treatment of Cancer*, Journal of Pharmacy Practice and Research, vol. 37, no. 2

25 Clinical Oncology Society of Australia (2008), *Guidelines for the Safe Prescribing, Supply and Administration of Cancer Chemotherapy*, November 2008

[26] Australian Government: Cancer Australia (2010), *Assessment of Cancer Care Perceptions and Experiences of People Affected by Cancer,* August 2010

[27] South Australia, *Consent to Medical Treatment and Palliative care Act 1995, Version: 1.7.2010*

6. Chemotherapy prescribing

6.1. Services comply with the 2009 SA Health Policy Directive to implement the Australian Commission on Safety and Quality in Health Care National Standard for Terminology, Abbreviations and Symbols to be used in the Prescribing and Administering of Medicines in Australian hospitals[28] including;

6.1.1. Principles for consistent prescribing terminology

6.1.2. Acceptable terms and abbreviations

6.1.3. Error prone abbreviations, symbols and dose designations to be avoided.

6.2. The service defines standard chemotherapy regimens by diagnosis with references readily available[29] and/or identifies source(s) for chemotherapy regimens and approved clinical research protocols. *Utilisation of eviQ – Cancer Treatments on-line protocols*[30] *for adults with cancer is a recommended example*

6.2.1. For orders that vary from standard regimens, practitioners document both the nature of the variation and the supporting reference and/or rationale for necessary modifications.

6.2.2. The service maintains and utilises standard, regimen-level, pre-printed or electronic forms for all chemotherapy prescribing (including oral chemotherapy) including supportive care medications. Use of a chemotherapy electronic management system is preferred.

6.2.2.1. Handwritten prescribing of chemotherapy is replaced as soon as possible by pre-printed forms or preferably by electronic prescribing systems

6.3. Original prescribing of a chemotherapy protocol /treatment plan is signed by a specialist oncologist/haematologist with access to all relevant patient information. The Clinical Oncology Society of Australia: *Guidelines for the Safe Prescribing, Supply and Administration of Cancer Chemotherapy*[31] are recommended as an appropriate reference in the development of local/regional standardised prescribing processes.

---

[28] Australian Committee for Safety and Quality in Health Care, Recommendations for Terminology, Abbreviations and Symbols used in the Prescibing and Administration of Medicines, December 2008 accessible online www.safetyandquality.gov.au

29 NHS National Cancer Action Team, *Chemotherapy Services in England: Ensuring Quality and Safety A report from the National Chemotherapy Advisory Group Draft for Consultation*, November 2008

[30] Cancer Institute NSW, *eviQ Cancer Treatments Online,* accessible online: www.eviq.org.au

[31] Clinical Oncology Society of Australia (2008), *Guidelines for the Safe Prescribing, Supply and Administration of Cancer Chemotherapy*, November 2008

6.3.1. Only paediatric haematology/oncology consultants prescribe chemotherapy for paediatric patients.

6.3.2. All orders for chemotherapy are verified by an appropriately skilled clinical pharmacist with access to the patient information relevant to the treatment. The Clinical Oncology Society of Australia: *Guidelines for the Safe Prescribing, Supply and Administration of Cancer Chemotherapy*[32] provides a suitable guideline to aid development of local/regional policies and procedures for verification of chemotherapy orders.

6.3.3. Subsequent orders for administration of parental and oral chemotherapy cycles or doses are signed by an appropriately qualified medical practitioner or authorised nurse practitioner working in collaboration[33] with a specialist oncologist/haematologist.

6.3.4. Verbal orders are not recommended except to hold or stop chemotherapy administration. New orders or changes to orders must be made in writing. *Signed electronic, fax and email orders are considered written orders.*

6.3.5. All services maintain a centralised register of staff who have formally demonstrated competency to prescribe (either first or subsequent cycles), verify prescriptions and supply chemotherapy.

6.3.5.1. There is a defined centralised process and identified personnel within the service and region for register development and maintenance.

[32] Clinical Oncology Society of Australia (2008), *Guidelines for the Safe Prescribing, Supply and Administration of Cancer Chemotherapy*, November 2008

[33] National Health (Collaborative Arrangements for Nurse practitioners) Determination 2010, accessible online: http://www.frli.gov.au.

7. Assessment and Monitoring of Patients on Chemotherapy

7.1. The service maintains standardised protocols that determine the appropriate time interval for regimen specific laboratory and radiological tests that are:

7.1.1. Evidence based when national guidelines or protocols exist (eg, NHMRC guidelines, Cancer Clinical Pathways, eviQ Cancer Treatments Online protocols[34]) or

7.1.1.1. Determined by consensus of practitioners within the service.

7.1.1.2. Determined by a treatment protocol within a clinical trial

7.2. The service has policies and procedures that clarify the roles and responsibilities of doctors, nurses and pharmacists in patient assessment and monitoring. These policies and procedures are relevant to workforce education, knowledge, skills and scope of practice within the local and virtual/remote environment.

7.2.1. Prior to each cycle of chemotherapy, a chemotherapy competent clinician (see standard 2) must perform and document a pre chemotherapy history and clinical assessment including the following information;

7.2.1.1. Diagnosis and current chemotherapy protocol

7.2.1.2. Current cycle and day of scheduled treatment

7.2.1.3. Relevant changes to height, weight and body surface area (BSA)

7.2.1.4. Changes in performance status. Use of the Eastern Cooperative Oncology Group (ECOG) tool is recommended.

7.2.1.5. Allergies, sensitivities, reactions, and treatment related toxicities that may impact on the safety of treatment to proceed or require changes to supportive care strategies within the chemotherapy protocol.

7.2.1.6. Effectiveness of prescribed or patients' self-management strategies on symptoms, side effects and toxicities

[34] Cancer Institute NSW, *eviQ Cancer Treatments Online,* accessible online: www.eviq.org.au

7.2.1.7. Compliance with oral chemotherapy and/or pre-medications prescribed as part of the chemotherapy protocol.

7.2.1.8. Relevant pathology and radiology results that may impact on the safety or appropriateness for treatment to proceed.

7.2.1.9. Clinical evidence of response to treatment or suspected disease progression.

7.2.1.10. Patients' psychosocial concerns and need for support including use of a validated tool such as the 'Distress Thermometer©'[35]

7.2.1.11. Cumulative doses of those chemotherapy agents associated with a risk of cumulative toxicity.

7.2.1.12. Confirmation that patient is fit to proceed with treatment or notification that patient is not fit to proceed with treatment

7.2.1.13. Ongoing management plan including next review by specialist oncologist/haematologist.

[35] National Comprehensive Cancer Network Inc. 2010, Clinical practice Guidelines in Oncology. Distress Management V1.2010, accessible online: http://www.nccn.org/professionals/physician_gls/PDF/distress.pdf

8. Provision of Supportive care

8.1. Services have local, community or remote access to resources that may be required to support people with cancer and their families and/or caregivers. This includes management of physical symptoms and the identification and assessment of psychosocial issues at critical points along the pathway from diagnosis through treatment to post-treatment care, survivorship or palliation.

8.1.1. All services maintain or recommend standard, evidence based protocols (such as eviQ Cancer Treatments Online[36]) for managing symptoms of disease and side effects of treatment including response to haematology/oncology emergencies (e.g. febrile neutropenia). It is recommended that protocols are reviewed annually and must include:

8.1.1.1. Documented process on provision of or access to 24/7 triage for advice or clinical review (e.g. hot-line, on-call practitioner, emergency department) for management of chemotherapy toxicities

8.1.1.2. Documented process on access to emergency medicine, infectious diseases unit, acute medicine and haematology/oncology disciplines

8.1.1.3. Documented processes for efficient and effective transfer of care to appropriate health services for those patients deemed to be at risk of serious adverse events

8.1.1.4. Documented formal protocols to guide staff on contacting the state-wide retrieval services as required.

8.1.2. The service has in place validated tools such as the 'Distress Thermometer©'[37] to enable and promote routine assessment regarding psychosocial concerns and need for support:

8.1.2.1. Staff have access to education locally or remotely in identifying and responding to supportive care needs of patients (such as the learning activities and resources available on *Cancer Learning*[38])

[36] Cancer Institute NSW eviQ Cancer Treatments Online access www.eviq.org.au

[37] National Comprehensive Cancer Network Inc. 2010, Clinical practice Guidelines in Oncology. Distress Management V1.2010, accessed online http://www.nccn.org/professionals/physician_gls/PDF/distress.pdf

[38] Australian Government Cancer Australia , *Cancer Learning,* accessed on-line http://www.cancerlearning.gov.au/find/suppcare.php

8.1.3. The service has referral processes for timely access to interpreter, liaison, coordination and support services for Aboriginal and Torres Strait Islander people

8.1.4. The service has referral processes for timely access to interpreter services for people from a culturally and linguistically diverse background.

8.1.5. The service maintains a referral list and referral processes for psychosocial, nursing, allied health, pharmacy, peer support, volunteer and other supportive care resources available within the service, the community or via remote access.

8.1.5.1. There is a defined centralised process and identified personnel within the service for referral list development and maintenance.

9. Safe Handling, Administration and Disposal of Chemotherapy

9.1. All clinicians and support staff who may come in contact with chemotherapy drugs are educated on the safe handling of cytotoxic drugs and related waste[39] as part of service or unit orientation.

9.2. All chemotherapy services have policies and procedures to ensure the safe handling of cytotoxic drugs and related waste consistent with the *Guidelines for the Safe Handling of Cytotoxic Drugs and Related Waste in South Australian Health Services' 2011*[40] *(*currently being developed). Policies and procedures must be relevant to the local care environment (e.g. hospital, community, patient home) and include:

9.2.1. Legislative requirements
9.2.2. Risk Management
9.2.3. Staff Health
9.2.4. Education & training
9.2.5. Production, labelling and dispensing of cytotoxic drugs
9.2.6. Transport and storage of cytotoxic drugs
9.2.7. Administration of cytotoxic drugs inclusive of all relevant routes of administration
9.2.8. Personal Protective Equipment (PPE)
9.2.9. Management of extravasation
9.2.10. Management of spills
9.2.11. Management/Transport of waste including contaminated body waste and laundry

[39] South Australian Department of Health 2010, *Draft State-wide Framework for Chemotherapy Education and Assessment; an Integrated Model for South Australia,* September 2010
[40] SA Health, *Guidelines for the Safe Handling of Cytotoxic Drugs and Related Wastes in South Australian Health Services',* Draft version 1.3, October 2010[40]

10. Intrathecal chemotherapy and recommendations to reduce the risk of error with vincristine

10.1. Only level 5 and 6 chemotherapy services are to administer chemotherapy via the intrathecal route.

10.2. Intrathecal chemotherapy for paediatric patients can only occur within a dedicated paediatric haematology/oncology service by senior clinicians formally assessed as competent to administer intrathecal chemotherapy.

10.3. Services have policies and procedures that comply with the recommendations of the 2005 Australian Council for Safety and Quality in Health Care Medication Alert[41] to reduce the risk of error with vincristine. These recommendations include;

10.3.1. Vincristine should be dispensed and administered in a minibag, not a syringe. Use of a minibag aims to 'design out the error' by preventing connection to a spinal needle.

10.3.2. All vincristine products, including outer wraps, should be labelled with a prominent warning label stating: "FOR INTRAVENOUS USE ONLY – Fatal if given by other routes".

10.3.2.1. Negative labels, such as "Not for intrathecal use" should NEVER be used.

10.3.3. The timing and location of vincristine preparation, delivery and administration should be such that it is separate from all medicines intended for intrathecal administration.

10.3.4. Medicines to be administered intrathecally must be packaged, transported and stored separate to intravenous medicines in specifically designated containers. Vincristine and other intravenous medicines must have separate packaging and different containers.

10.3.5. All medicines for intrathecal administration should be labelled with a prominent warning label, on the syringe and the outer wrap, stating "For intrathecal use".

10.3.6. Only staff specifically trained and experienced in intrathecal cancer treatments should be designated to prescribe, prepare, dispense, deliver, receive or administer intrathecal chemotherapy. This includes senior registrars, consultants, cancer pharmacists and senior nurses.

[41] Australian Council for Safety and Quality in Health Care, Vincristine can be fatal if administered by the intrathecal route, Alert 2, December 2005 http://www.safetyandquality.gov.au/

10.3.7. Staff administering intrathecal medicines must use formal checking procedures. This should include a ‘time out’ involving at least two health professionals, including an oncology trained nurse or pharmacist and a doctor. The patient identifiers, drug, dose, volume, route and rate should be verified against the medication order immediately prior to administration. Both health professionals should then sign the order.

Appendix 1: Consultations and contributions

Name	Role
Jodie Altshwager	Ambulatory & Primary Health Care Directorate, Central Northern Adelaide Health Service
Mary Amanatidis	Project Officer, Department of Health Nursing & Midwifery Office
Monique Anninos	CSC Haematology/Oncology, Womens And Childrens Hospital Campus, Child Youth & Womens Health Service
Jacqui Adams*	Clinical Head Oncology, Lyell McEwin Hospital & Clinical Director of Cancer Services, Country Health SA
Peter Bardy*	Chief Medical Officer, Central Northern Adelaide Health Service, Specialist Haematologist RAH & TQEH
Carol Barnes	Director of Nursing and Midwifery, Wallaroo Hospital, Yorke and Lower North Health Services, Country Health SA
Julie Beaton	Personal Assistant to Clinical Director Cancer Services, Adelaide Health Service,
Jenny Beutel	Chief Nurse, Nursing & Midwifery Office, SA Health
Steve Morris and the members of the Cancer Pharmacy Workforce Working Group	Pharmaceutical Services and Strategy Branch, SA Health
Peter Chapman*	Chief Medical Advisor Country Health SA
Alwin Chong*	Aboriginal Health Council South Australia
Lauren Civetta	Senior Project Officer, Planning Unit, Adelaide Health Service, SA Health
Greg Crawford*	Palliative Care Specialist, Calvary North Adelaide Hospital Mary Potter Senior Lecturer in Palliative Care, University of Adelaide
Deb Daulby**	Senior Project Officer, CanNET SA, Statewide Service Strategy, SA Health
Nino DiSisto*	Executive Director, Country Health SA Member of the Cancer Clinical Network Steering Committee (frmr)
Tracey Doherty***	Deputy Chair Cancer Clinical Network Steering Committee Clinical Practice Nursing Director, Cancer Services, Adelaide Health Service
Cecily Dollman	Team Leader, Cancer Services Team, Social Work and Counselling Service, Royal Adelaide Hospital
Maeve Downes	Senior Project Officer, Chemotherapy Administration State-wide, Nursing & Midwifery Office SA Health
Bev Drummond	CSC Ceduna District Health Services, Country Health SA
Lisa Elliott	CSC Day Chemotherapy Unit, Royal Adelaide Hospital Cancer Centre
Catherine Egal	Acting Nursing Director, Functional & Clinical Services, Noarlunga Health Service

Appendix 1: Consultations and contributions

Name	Role
Alice Every	CSC Ward B6, Royal Adelaide Hospital Cancer Centre
Juli Ferguson*	Consumer representative, Cancer Voices SA & Fleurieu Cancer Network
Carolyn Garbett Smith	Social Worker, Royal Adelaide Hospital
Shandelle Hill	Regional Outreach Oncology Clinical Practice, Child, Youth and Womens' Health Service
Meryl Horsell	Manager, Clinical Service Planning, Statewide Service Strategy, SA Health
Ann Jackson	A/g CSC Haematology/Oncology, Womens' and Children's Hospital, Adelaide
Megumi Kanaike	Clinical Oncology/Haematology Pharmacist, Flinders Medical Centre
Dorothy Keefe*	Chair Cancer Clinical Network Steering Committee Clinical Director Cancer Services, Adelaide Health Service
Bogda Koczwara*	Director Cancer Services, Southern Adelaide Health Service
Sheila Lehman	CSC Haematology/Oncology, The Queen Elizabeth Hospital
Jude Lees*	Senior Pharmacist, Royal Adelaide Hospital Cancer Centre
Kristin Linke*	CSC Haematology/Oncology Day Centre, The Queen Elizabeth Hospital
Gerry Lloyd	Director of Nursing/Midwifery, Gawler Hospital, Inner North Country Health Services, Country Health SA
Melanie McMahon	Rural Cancer Care Coordinator, Central Northern Adelaide Health Service Cancer Services
Ashleigh Moore*	Consumer representative, Cancer Voices SA
Steve Morris	Chief Pharmacist, Pharmaceutical Services and Strategy Branch, SA Health
James Moxham*	GP Representative, Cancer Clinical Network Steering Committee
Rahul Mukherjee*	Radiation Oncologist, Central Northern Adelaide Health Service
Kim Nicolson	CSC Coober Pedy Hospital & Health Services, Country Health SA
Lyn Olsen and the CHSA Nursing and Midwifery Leadership Group	Country Health SA
Michael Penniment*	Radiation Oncologist, Central Northern Adelaide Health Service
Janette Prouse	Geriatric Oncology Nurse, Royal Adelaide Hospital Cancer Centre
Sharon Reinbrecht	Rural Cancer Care Coordinator, Southern Adelaide Health Service
David Roder*	Group Executive Research, Development and Statistics, Cancer Council SA
Dianne Rogowski	Executive Director of Nursing & Midwifery Allied Health & Patient Care, Central Northern Area Health Service
Graham Rumsby	Nursing Director, Royal Adelaide Hospital Cancer Centre

Name	Role
Rural Divisions of General Practice	Barossa, Division, Eyre Peninsula , Flinders and Far North, Limestone Coast, Mid North Rural, Murray Mallee, Riverland, Yorke Peninsula
Megan Satenak*	Director, Dietetics & Nutrition, Repatriation General Hospital
Senior Cancer Nurses Stakeholder Group	CanNET SA, Statewide Service Strategy, SA Health
Magda Simon	Project Nurse Mental Health, Nursing & Midwifry Office, Sa Health
Heather Tapp*	Director Cancer Services Children Youth & Womens Health Service
Suzanne Taylor	CSC Haematology/Oncology, Womens And Childrens Hospital Campus, Child Youth & Womens Health Service
Kate Turpin	Nurse Education Facilitator, Department of Clinical Haematology/Oncology, Womens and Childrens Hospital
Metropolitan Divisions of General Practice	Adelaide Hills, Adelaide Central and Eastern, Adelaide Northern, Adelaide Eastern, Southern Division and Adelaide Western
Terry Ventrice	CSC Ward C6, Royal Adelaide Hospital Cancer Centre
Ingrid Vogelzang*	Network Development Manager, Statewide Cancer Clinical Network
Alison Walsh	CSC Ward B8, Royal Adelaide Hospital Cancer Centre
Deb Warne	CSC Surgical Centre, Repatriation General Hospital
David Watson	Head, Flinders University Department of Surgery
Brenda Wilson*	Chief Executive Cancer Council South Australia
Graeme Young	Professor of Gastroenterology and Academic Head of GI Services, Flinders University of SA

*Member Cancer Clinical Network Steering Committee

**Major contributor

***Principal Editor and project chair

Appendix 2:
Self Evaluation and Implementation Matrix

Key

Full compliance means arrangements / processes exist and are documented and implemented.

These arrangements are comprehensive, regular, formal and consider local, within-region and state-wide relationships.

There is formal evidence and documentation, available including reports where appropriate, to support compliance.

Partial compliance means arrangements/ processes exist, however there is opportunity to improve through one or more of the following:

- Formalising arrangements/ processes
- Documenting arrangements/ processes
- Implementing arrangement/ processes
- Increasing frequency/ regularity
- Increasing the comprehensiveness
- Gathering evidence and documentation to support compliance

Non-compliance means there is work required to develop clear, consistent and documented roles, structures, policies, procedures and processes.

Comments/plan provides supporting information to criteria compliance and plan to achieve as applicable.

Self Evaluation and Implementation Matrix

Standard 1: Governance

Standard No	Standard Criteria	Full compliance	Partial compliance	Non compliance	Comment/plan
1	Clearly documented governance arrangements exist both locally and regionally.				
1.2	In line with clinical service delineation, core speciality and clinical support services exist to manage risk levels of chemotherapy. Formal MOU exist as required.				
1.3	Regional Directors oversee continuous development and implementation of standardised procedures/protocol/models of care that support chemotherapy delivery.				
1.4	Performance indicator framework KPIs are monitored and reported through identified governance processes.				
1.5	Safety and Quality complaints and incidents including AIMS reports are monitored and formally reviewed through identified governance processes. These processes inform strategic planning.				

Standard 2: Workforce, training and competency

Standard	Standard Criteria	Full compliance	Partial compliance	Non compliance	Comment/plan
2.1	Policies and procedures for provision and verification of credentialing and chemotherapy education and competency exist and are adhered to.				
2.1.1	Only chemotherapy competent clinicians prepare or administer chemotherapy.				
2.1.2	Service has standard mechanism for providing opportunity for and monitoring continued competency				
2.2	Paediatric chemotherapy is managed by a specialised paediatric health facility unless recommended and well supported by paediatric specialist clinicians.				
2.3	Sustainable access to nursing/clinical staff with expertise in CVAD and PICC is available and care is consistent with evidence based guidelines				

Standard 3: Timely access, integration and coordination of care

Standard	Standard Criteria	Full compliance	Partial compliance	Non compliance	Comment/plan
3.1	Processes exist to ensure care is coordinated in a consistent and timely manner utilising quality and cost effective principles.				
3.2	Access to transport and accommodation is available for patients relocating for treatment.				
3.3	Minimum operational & infrastructure requirements including accommodation and ICT are met to maximise local access to care.				
3.4	Services administering chemotherapy to paediatric patients comply with the Standards for the Care of Children and Adolescents in Health Services.				
3.5	Formal communication arrangements between GP's and consultants exist for 24/7 advice/consultation/referral.				
3.6	Procedures for efficient and effective transfer of patient care are standardised				
3.7	Services without oncology/haematology/pharmacy on site have formal links and agreements with recognised service for advice, education and support.				
3.8	Services without specialist cancer nurse on site have formal links and agreements with recognised service for advice, education and support Formal links/agreements exist with a recognised L4-6 chemotherapy cancer nurse for remote support within SA				
3.9	Standard processes exist for efficient and effective discharge planning/transition/follow up care				

Standard 4: Multidisciplinary care, comprehensive patient assessment and chemotherapy planning.

Standard	Standard Criteria	Full compliance	Partial compliance	Non compliance	Comment/plan
4.1	All patients have opportunity to have management discussed by a Cancer MDT				
4.2	Local policy identifies comprehensive patient information required to be available and documented prior to prescribing or administering chemotherapy				
4.3	Local policy identifies that final decisions on initiation of chemotherapy protocol/treatment plan are made at consultant level.				

Standard 5: Patient Education and Consent

Standard	Standard Criteria	Full compliance	Partial compliance	Non compliance	Comment/plan
5.1	Guidelines and resources are available to enable standardised and effective provision of verbal and written information to patients/parents/carers/family prior to initiation of chemotherapy via any route.				
5.2	Service maintains a policy for obtaining and documenting patient consent for chemotherapy.				

Standard 6: Chemotherapy prescribing

Standard	Standard Criteria	Full compliance	Partial compliance	Non compliance	Comment/plan
6.1	Service complies with the 2009 SA Health Policy Directive in regard to consistent prescribing terminology and use of acceptable abbreviations.				
6.2	Evidence based, standard chemotherapy regimens are defined and utilised.				
6.3	Local policies and procedures identify appropriate prescribing practices and maintain a centralised register of staff competent to prescribe, verify prescriptions and supply chemotherapy.				

Standard 7: Assessment of Monitoring of Patients on Chemotherapy.

Standard	Standard Criteria	Full compliance	Partial compliance	Non compliance	Comment/plan
7.1	Standard, evidence based protocols are utilised to determine appropriate time interval for regimen specific laboratory and radiological tests.				
7.2	Policy and procedures that clarify roles and responsibilities of doctors, nurses and pharmacists in patient assessment and monitoring exist and are relevant to local workforce education, knowledge and skill. Clear role delineation enables comprehensive patient assessment without duplication of effort.				

Standard 8 : Provision of supportive care.

Standard No	Standard Criteria	Full compliance	Partial compliance	Non compliance	Comment/plan
8.1	Services have local, community or remote resources that support patients with cancer and their families/caregivers.				
8.1.1	Standard evidence based protocols are readily accessible and utilised to manage symptoms and side effects including oncological emergencies.				
8.1.2	Evidence based tools to assess and monitor symptom and psychosocial distress are routinely utilised and staff are educated on responding to supportive care needs of cancer patients				
8.1.3	Referral processes to ATSI liaison, coordination and support exist				
8.1.4	Referral processes to interpreters and support for CALD peoples exist				
8.1.5	Referral processes to supportive care resources are identified and maintained				

Standard 9 : Safe Handling, Administration and Disposal of Chemotherapy

Standard No	Standard Criteria	Full compliance	Partial compliance	Non compliance	Comment/Plan
9.1	Service/unit orientation includes education on safe handling of cytotoxic drugs and related waste				
9.2	Services comply with SA Health guidelines on the safe handling, transportation, storage and management of cytotoxic drugs and related waste.				

Standard 10 : Intrathecal chemotherapy and recommendations to reduce the risk of error with vincristine.

Standard No	Standard Criteria	Full compliance	Partial compliance	Non compliance	Comment/Plan
10.1	Local policies and procedures identify that only Level 5 & 6 chemotherapy services administer chemotherapy via the intrathecal route.				
10.2	Local policies and procedures identify that Intrathecal chemotherapy for paediatric patients occurs only within dedicated paediatric facilities				
10.3	Local policies and procedures exist and adhered to regarding intrathecal chemotherapy and the recognised risk of error with vincristine.				