SA Health Cancer Drug Committee

Systemic Anti-Cancer Therapy Risk Matrix

SA Health provides systemic anti-cancer therapy (SACT) at 21 sites across South Australia. Each of these sites is designated as being able to administer low, medium or high risk SACT based on resources and infrastructure governed by The SA Health Clinical Services Capability Framework (CSCF) 2016. Designation of SACT to a risk category is based on a number of patient and drug factors. The following clinical information and risk matrix is updated from the original matrix developed by the SA Cancer Service (SACS) in 2010. The Regional Support Service (RSS) has governance of the administration of this matrix for all sites in regional SA.

Risk Stratification of Systemic Anti-Cancer Therapy

Patient Factors

Factors to be considered in the risk assessment for the patient planned for systemic anti-cancer therapy include:

- Patient age, comorbidities and performance status
- Patient's current and anticipated disease and treatment risks
- Ongoing review and monitoring requirements
- Prior tolerance of systemic anti-cancer therapies

Clinical Service Factors

> The SA Health Clinical Services Capability Framework (CSCF) 2016 lays out the requirements for Cancer services in three domains:

- Cancer services – Children's
- Cancer services – Haematological Malignancy
- Cancer services – Medical Oncology

> The SA Health CSCF is a guide to assist services in assessing their current status, planning strategy and directing service improvement. For the purposes of Cancer services:

- Level 3 services relate to Low Risk
- Level 4 services relate to Medium Risk
- Level 5/6 services relate to High Risk

> Paediatric cancer therapies require a multidisciplinary team experienced in paediatric oncology and are therefore administered at the Women's and Children's Hospital. A specific procedure exists to enable the administration of subcutaneous cytarabine for patients with Acute Lymphoblastic Leukaemia at regional centres. Exceptions on an individual basis (eg. older adolescent patients) may be made where the benefits of treatment in a regional location outweigh the risks, as assessed by paediatric medical, paediatric nursing, regional nursing and paediatric pharmacy representatives.

> Individual regional services that can demonstrate under the framework that resources and/or infrastructure are in place to mitigate risk may be able to provide specific additional protocol(s). For example, a visiting clinical specialist with supporting on-call arrangements may allow for higher risk SACT to be provided in a named unit for their patients only. Recommendations around this are governed by the Rural Support Services Cancer Services Team

> Responsibility for treatments provided in cancer services remains with the Local Health Network and supervising clinician.

Treatment Factors

The following risk stratification table is updated and refined from the original matrix developed in 2010. The table relates to SACT administration in adults, and it is used by the SA Health Cancer Drug Committee in conjunction with the Rural Support Services Cancer Service Team on which to base its SACT risk assessment for the SA Health Approved Cancer Chemotherapy Protocol Register.

The Rural Support Service Cancer Services Team supports the interpretation and application of the Risk Matrix and the Clinical Services Capability Framework to low and medium risk chemotherapy units located in regional South Australia. This is through formal advice to the SAHCDC regarding risk stratification for new protocols listed on the protocol register, and formal advice and recommendations to regional LHNs considering giving a new protocol for the first time.

It is expected that the supervising consultant and the treating unit would evaluate these risk factors against the SAHCDC risk assessment for the patient treatment in combination with individualised assessment of the patient when considering the safety and appropriateness of chemotherapy administration at individual units.

Table 1. Systemic Anti-cancer Therapy Risk Stratification Matrix

Low Risk	Medium Risk	High Risk
SACT suitable for monitoring by regional chemotherapy nurses with less frequent specialist reviews (may be via telemedicine) by supervising haematologist or oncologist > Patient stable, with performance status equivalent to ECOG 0, 1 or 2. > Patient not considered at increased risk due to age or comorbidities > Low risk of acute grade 3 and 4 toxicities > Low risk of acute side effects > Low risk of acute major adverse drug reactions > Uncomplicated vascular access requirements > Non-vesicant agents > Single agent standard treatment or approved one-off treatment with similar toxicity to standard Low complexity of premedication, supplementary treatments, and hydration requirements > No planned requirement for blood results within a 24-hour timeframe	SACT suitable for monitoring by regional chemotherapy nurses or an oncology/haematology nurse practitioner with alternate reviews (may be via telemedicine) by supervising haematologist or oncologist > Patient stable, with performance status equivalent to ECOG 0, 1 or 2 > Moderate risk of acute grade 3 toxicities, low risk of acute grade 4 toxicities > Moderate risk of acute toxicities requiring close monitoring or intervention > Risk of adverse drug reaction requiring emergency management > Vesicant agents included as part or all of treatment > Includes two or more cytotoxic agents in protocol > Standard treatment or approved one-off treatment with similar toxicity to standard treatment > Complex premedications, supplementary treatments and hydration requirements > Requirement for standard blood results within 24 hours	SACT requiring high-level monitoring and supervision by specialist haematology/oncology service > Patient may be medically unstable with variable performance status > 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 > Intrathecal treatment > Intracavity or intravesical chemotherapy > High dose treatment requiring in-patient admission > 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

For more information

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