

Introduction and Who this Policy applies to

This CYPICS network policy has been developed by clinicians from Nottingham Children’s Oncology Unit with consultation across the network including from the Leicester Royal Infirmary and has been ratified by the Leicester Children’s Hospital policy and guidelines process.

This policy applies to all children and young people under the age of 19 years who are receiving chemotherapy for malignant disease

UHL local Paediatric Oncology specialists are:

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Dani Jones; CYPICS Clinical Educator

Title of Policy	Safe Handling of Systemic Anti-Cancer Therapy (SACT) Drugs
Contact Name and Job Title (author)	Margaret Parr Lead Nurse East Midlands Children’s and Young Persons’ Integrated Cancer Service (EMCYPICS) Dani Jones Clinical Educator (EMCYPICS) Colin Ward Lead Pharmacist (EMCYPICS)
Directorate & Speciality	Family Health, Child Health
Original Date of Submission	May 2013
Date of Submission	August 2024
Date on which policy must be reviewed (this should be one to three years)	Sep 2026
Explicit definition of patient group to which it applies (e.g. inclusion and exclusion criteria, diagnosis)	1. Children and Young People (CYP) cared for by CYPICS
Key Words	Cytotoxic; SACT, systemic anti-cancer therapy, children, young people
Statement of the evidence base of the policy – has the policy been peer reviewed by colleagues?	4 - expert committee reports or opinions and / or clinical experiences of the respected authorities
Evidence base: (1-6)	



1	NICE Guidance, Royal College Guideline, SIGN (please state which source).	5 - recommended best practice based on clinical experience of the current Clinical team 6 - recommended best practise based on the clinical experience of the policy developer
2a	meta analysis of randomised controlled trials	
2b	at least one randomised controlled trial	
3a	at least one well-designed controlled study without randomisation	
3b	at least one other type of well-designed quasi-experimental study	
4	well –designed non-experimental descriptive studies (i.e. comparative / correlation and case studies)	
5	expert committee reports or opinions and / or clinical experiences of respected authorities	
6	recommended best practise based on the clinical experience of the policy developer	
Consultation Process		Senior staff within CYPICS Paediatric oncology/haematology service
Target audience		Staff caring for CYP within CYPICS
This policy has been registered with the trust.		

Document Control

Issue Status	Version	Issue Date	Lead Author	Description
	V1	Original date unknown	Margaret Parr	
	V2	October 2023	Dani Jones	Removal of any reference to Intrathecal and refer to local guidelines. Removal of any reference to community teams (they have local policies).



	V3	Dani Jones		<p>Removal of any reference to non-malignant conditions. References updated where applicable and inclusion of UHL equivalent. Collection of SACT section re-worded in line with change in practice. Inclusion of management of spillage and extravasation. Designated areas clarified and amended. Reworded as a policy following request by UHL PGC and confirmed by Lorraine Morris (Quality Matron for NCH).</p>
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Introduction

This policy is written to provide information to staff caring for children and young people (CYP) receiving Systemic Anti-Cancer Therapy (SACT), the drugs used to treat malignant oncology/haematology conditions. The registered nurse administering the SACT should be named on the SACT register as competent in administration of SACT and competent to administer intravenous medication via peripheral cannula and central venous access devices. The registered nurse checking the SACT should have successfully completed the SACT Passport or completed the theoretical component as a minimum to be signed off as a competent second checker (see Guideline for Nurse training and Education for the Children and Young Persons' Integrated Cancer Service (CYPICS) 2023).

Nurses on the SACT register as competent to administer, should have “written confirmation that their competence has been reassessed and reaffirmed annually” (Children’s Cancer Network – Principal Treatment Centre Service Specification, 2021). Nurses who have been assessed as competent and on the register for 12 months or more are able to assess competency of staff working through the SACT Passport. For members of staff who have completed the local chemotherapy competencies which pre-date the introduction of the SACT Passport, these members of staff do not need to complete the SACT Passport.



This policy will relate to local policy/procedure and should be used in conjunction with the East Midlands Cancer Alliance SACT Policy (2022).

Management

Both qualified and unqualified members of staff can collect SACT from pharmacy

There should be a minimum of two nurses per shift trained to full internal training level on the named oncology wards (Children's Cancer Network – Principal Treatment Centre Service Specification 2021).

A register of staff, who can check and administer (Nurses) and who can prescribe and administer (Doctors) SACT at NUH, can be found on the local intranet.

A register of staff who can, administer and prescribe SACT can be found in the treatment room on Ward 27 at LRI.

These registers are maintained by the CYPICS Clinical Educator.

Nurses who are working towards completing their training are able to administer SACT only under the supervision of staff who have been competent to administer SACT for more than 1 year.

All areas where SACT is administered should have up to date policies and equipment required for:

- Anaphylactic shock
- Cardiac and respiratory Arrest in children and young people
- Extravasation of Cytotoxics
- Spillage of Cytotoxics

SACT should only be administered in the following areas within the Children's hospitals in Nottingham (NUH) and Leicester (UHL):

NUH (Queens Medical Centre)

Ward E39

Ward E40

Children's Oncology Day Care



Paediatric Critical Care Unit (PCCU)

Main Theatres

UHL (Leicester Royal Infirmary)

Ward 27

Ward 27 Day Care

Children's Intensive Care Unit (CICU)

Cardiac Paediatric Intensive Care Unit (CPICU)

Main Theatres

CYP patients receiving SACT for malignant oncology/haematology conditions will have this administered by oncology SACT trained nurses.

The administration of SACT is a two-person procedure. If a doctor administers the drug, the doctor must be a registrar, clinical fellow or consultant within the Children's and Young Persons' Oncology Team who is on the SACT register. Doctors, and nurses assessed as competent to do so, will be responsible for the administration of vesicant SACT via peripheral cannula. If a doctor administers the SACT, the person checking must be a nurse who has successfully completed the SACT Passport.

When checking SACT the following must be checked;

- Consent
- Patient's identification as per local Trust policy
- Patients allergy status
- Critical test results
- Regimen and individual drug identification
- Dose matches the prescription
- Diluents and dilution volumes and any hydration
- Dose expiry
- Supportive drugs have been given as prescribed
- Administration route and duration
- Cycle number
- Administration as per the schedule within the cycle



Following administration the SACT will be signed for on the electronic ChemoCare system.

All Vinca-Alkaloids will be prepared and administered in accordance with the CYPICS Vinca-Alkaloids policy (2024).

N.B. Vinca-alkaloids and Intrathecal SACT must not be prescribed and administered to the patient on the same day.

Extenuating circumstances

- There may be times due to deterioration of the patient or pandemic when a child or young person will require SACT (via any route) but needs to be cared for in a more appropriate area to meet the patient's needs. Nursing and medical staff that are part of the Paediatric Oncology/Haematology service and are on the SACT register must be responsible for the administration and checking of the SACT.
- There may be occasions when day care activity has to be moved, in this instance the safety requirements for safe administration of SACT via all routes will remain the same.
- The decision to treat out of named areas must be made by senior team.
- The decision that the SACT administration workload is deemed unsafe will be made on a case by case basis. The decision will be made following discussion between the Paediatric Oncology or Haematology consultant responsible for the unit that day, the nurse in charge and the paediatric oncology pharmacist. The decision to cancel SACT due to unsafe workload will be documented in the patient's medical notes and a Datix will be completed.

Intrathecal/Intraventricular SACT

For all guidance regarding Intrathecal SACT refer to local Trust Intrathecal Guideline.

Equipment

- White Plastic Apron
- Powder free Nitrile gloves
- Protective sleeves (UHL only)
- SACT Chemocare prescription chart



Dedicated SACT fridge and cupboard

SACT sharps bin (yellow with purple lid– labelled cytotoxic)

Cytotoxic waste bag yellow and purple (NUH) clinical waste bag (LRI)

Process

Collection & Storage of SACT	
1	SACT will be collected/delivered by a member of staff (qualified and non-qualified staff, excluding students and play staff) once they have read the Safe Handling of SACT Policy and know where the spillage kit is kept and what to do in the event of a cytotoxic spillage
2	To ensure the correct SACT is collected/delivered for the correct patient the name and expiry date will be checked. <u>NUH only</u> – these details will be checked against the daily SACT log sheet which is printed out by the Oncology Pharmacist. Once the SACT has been collected from SPU this log sheet will be initialled by the person collecting the SACT, one copy of this will be left in SPU, one copy will return to the ward with the SACT. If SACT needs to be collected later in the same day a trained member of ward staff will use the printed out sheet to collect the SACT from SPU. <u>UHL only</u> – the member of staff collecting SACT will verbally confirm it is the correct SACT for the patient they are collecting for
3	It is the responsibility of the member of staff either collecting or delivering the SACT that it is for the correct patient
4	On return to the ward the drugs must be locked into the fridge or cupboard, dedicated to the storage of cytotoxic drugs and logged in to the log book by a member of nursing staff. If the patient is being nursed on any other ward/unit the SACT must be kept on the named paediatric oncology ward and administered and checked by appropriately trained SACT nurses
5	Any named SACT in the clinical area (ie designated fridge/cupboard) for a patient receiving intrathecal SACT on the day <u>must be</u> either attached and running to the patient or returned to SPU before the intrathecal SACT can be released and administered
6	Any unused/out of date SACT must be returned to SPU, or disposed of into cytotoxic waste in the clinical area



Administration of SACT

ORAL

1	The nurse administering the drug must wear correct PPE and a 'non-touch' technique should be used
2	Tablets must not be crushed or cut in half. NUH only - pharmacy will cut tablets in half prior to dispensing the drug if this is required. Syrup or dispersible tablets are available in most of the oral cytotoxic drugs if the child/young person is unable to take tablets **
3	Children/young people should be encouraged to take some fluid after taking oral cytotoxic medication
4	Medicine pots or oral medicine syringes should be discarded after one use and disposed of in cytotoxic waste bins (NUH) (cytotoxic sharps bin, UHL only)

** There may be at times exceptions to this when oral SACT capsules need to be opened and given with the appropriate substance. On these occasions maintain health and safety whilst wearing a face mask in addition to the PPE outlined above. "Care must be taken when doing this and it is recommended that the nurse / carer wear protective clothing including a mask to carry out this procedure" (CCLG 2018).

SUBCUTANEOUS / INTRAMUSCULAR INJECTION

1	The nurse administering the drug must wear the correct PPE
2	There may be occasions where anaphylaxis is a concern following administration, therefore a doctor should be present and available on the ward for the next hour
3	Child/young person should always remain in hospital for a minimum of two hours after administration to observe for any adverse reactions
4	Provisions for the management of anaphylaxis must be available



INTRAVENOUS DRUGS (IV)

1	All IV SACT is made up in pharmacy sterile products unit and must not be manipulated on the ward
2	Nurses will require additional assessment to administer SACT via a peripheral cannula
3	An extravasation and cytotoxic spillage kit must be available in any area where cytotoxic drugs are administered and staff should be aware of how to use it
4	If a Central Venous Access Device (CVAD) is being used the CVAD policy must be followed
5	The nurse administering the drug must wear correct PPE
6	When commencing cytotoxic infusions the giving sets must be primed with a compatible fluid. The SACT is then connected to the primed line at waist level
7	When changing bags of SACT, the bags should be changed at waist level
8	For SACT that is administered via infusion the administering nurse can perform a 'Fast Prime' (as per local SOP)
9	Before administration the nurse must ensure the CAVD is in the correct place by withdrawing 2mls of blood. If the line is not bleeding back and 2mls cannot be obtained then the nurse should troubleshoot according to the CVAD training and guideline. Vesicants must not be administered without the line bleeding back.

Disposal

1	Cytotoxic syringes and consumables must be disposed of in a cytotoxic sharps bin/waste bag (purple lid) Refer to local policy for removal and disposal of the cytotoxic waste sharps bin
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Transportation of SACT to the patient home



1	Cytarabine syringes are dispensed from the hospital pharmacy and are safe to be transported in a sealed container by the family with care following pharmacy advice regarding transportation, and stored as per local pharmacy guidance (the risk of spillage is minimal due to the cytarabine being in a sealed bag inside a sealed container)
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Disposal of excreta during and following SACT administration

For the majority of cytotoxic drugs active metabolites are excreted for up to seven days, following administration of cytotoxic drugs and as a standard rule staff should handle excreta as hazardous for seven days, special precautions must be taken when handling excreta (Health and Safety Executive (HSE) 2023)

1	Put on correct PPE
2	Place nappies, disposable incontinence material or stoma appliances in plastic bag and place this into the cytotoxic waste bag (clinical waste bag - UHL only)
3	Excreta must be disposed of into the toilet or sluice immediately
4	Soiled linen must be treated in the same way as infected linen

Disposal of Unused Cytotoxic Drugs and Related Equipment

1	Any SACT that is not administered <u>MUST</u> be either returned to pharmacy or disposed of in a Cytotoxic sharps bin (the item cannot be returned to pharmacy if the bag has the giving set attached)
2	The return of the unused SACT should be recorded in the SACT logbook
3	Unwanted used equipment, such as IV fluid bags should be disposed of into the cytotoxic waste bags (Cytotoxic sharps bin - UHL only)
4	Sharps such as giving sets, needles and syringes should be disposed of in the cytotoxic sharps bins

PRECAUTIONS TO BE TAKEN FOR PREGNANT STAFF



The data on reproductive risk is inconclusive, the Royal College of Nursing recommend that “the decision of whether or not to continue working with cytotoxics must be the responsibility of the staff member concerned, and the consequences of this decision must be supported by management” (RCN 1998). Staff who are pregnant must complete a risk assessment with their ward manager (HSE 2023). Senior staff within the Oncology Team will support the decision of the individual staff member.

There are several patient procedures that involve exposure to radioisotopes that could potentially cause harm to pregnant staff members. These are listed below; along with the time frame the pregnant staff member should avoid 1 metre close contact with the patient.

Procedure	Time Frame
Glomerular Filtration Rate (GFR)	24 hours
PET Scan	6 hours
MIBG Scan	24 hours

After this time has lapsed the pregnant staff member can resume close contact as required.

Care should also be taken for pregnant staff members when handling cytotoxic excreta, by utilising the correct PPE.

Pregnant staff members should also avoid the preparation process of oral SACT if this involves dissolving via a closed unit or opening capsules.

Management of SACT spillage	
1	All staff must know the location of the spillage kit on their ward
2	All spillages must be dealt with in accordance to local health and safety training
3	Following any spillage an incident form must be completed, reported to the line manager and on-call CYP haem/onc consultant
4	If a staff member is contaminated with SACT following a spillage a referral should be made to occupational health



5	For SACT administered in the community for CYP Oncology/Haematology patients by the Childrens Community Nursing Team (NUH only) spillage must be cleared as per their local guidance
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Management of SACT extravasation	
1	If extravasation is suspected it should be treated as an emergency and dealt with immediately as per the East Midlands Guideline for the Management of Extravasation (2022)
2	Following an extravasation an incident form must be completed, reported to the line manager and on-call CYP haem/onc consultant

References

Children and Young Persons' Integrated Cancer Service (CYPICS) (2023) Guideline for Nurse training and Education CYPICS. Available at [Details for: ASCT N001 Guideline for Nurse Training and Education for the Children and Young Persons' Integrated Cancer Service \(CYPICS\) › NUHT Clinical Guidelines and Policies catalogue \(koha-ptfs.co.uk\)](#) (Accessed 11-09-23)

Children's Cancer and Leukaemia group (CCLG 2018) Cancer Drug Factsheets. Available at <http://www.cclg.org.uk/publications/Cancer-drugs-factsheets>. (Accessed 31-08-2023)

CYPICS (2024) Vinka-Alkaloid policy. Available at <https://nuhp.koha-ptfs.co.uk/cgi-bin/koha/opac-retrieve-file.pl?id=59c221f8d334c622c7d0fcdb8605c07e> (Accessed 30-07-24)

East Midlands Cancer Alliance (2022) East Midlands Expert Clinical Advisory Group Systemic Anti-Cancer Therapy (SACT) Policy. Available at [Systemic Anti Cancer Therapy \(SACT\) ECAG - East Midlands Cancer Alliance](#) (Accessed 31-08-2023)

East Midlands Cancer Alliance (2022) Guideline for the Management of Extravasation. Available at [Guidelines for the Management of Extravasation 2023.pdf \(eastmidlandscanceralliance.nhs.uk\)](#) (Accessed 31-08-2023)



Health and Safety Executive (HSE) (2023) Available at <https://www.hse.gov.uk/healthservices/safe-use-cytotoxic-drugs.htm#> (Accessed 31-08-2023)

NHS England (2021) Children's Cancer Network – Principal Treatment Centres Service Specification. Available at [NHS England » Children's cancer services: Principal treatment centres service specification](#) (Accessed 31-08-2023)

NUH (2021) Control of Substances Hazardous to Health (Spillage procedure). Available at https://nuhp.koha-ptfs.co.uk/cgi-bin/koha/opac-detail.pl?biblionumber=6410&query_desc (Accessed 31-08-23)

NUH (2022) Fast Priming of Intravenous Infusion administration sets for Intravenous Systemic Anti-Cancer Therapy in Children and Young People Standard Operating Procedure (SOP only available via internal access)

NUH (2023) Spillage of Low Dose Cytotoxic Medications in Community Settings Guideline ([opac-retrieve-file.pl \(koha-ptfs.co.uk\)](#)) (Accessed 13/10/2023)

UHL (2023) Control of Substances Hazardous to Health. Available at [Control of Substances Hazardous to Health COSHH UHL Policy](#) (Accessed 08/08/24)

UHL (2024) Fast Priming of Intravenous Infusion administration sets for Intravenous Systemic Anti-Cancer Therapy in Children and Young People Standard Operating Procedure. ([Fast Priming of Administration sets for IV SACT in Children & Young People UHL Children's Hospital Guideline](#)) (Accessed 8/8/24)

UHL Education and Training

What will be measured to monitor compliance	How will compliance be monitored	Monitoring Lead	Frequency	Reporting arrangements
SACT delivered to the ward as per policy	Via datix	Ward manager	Six monthly	CYPICS CPM
SACT administered as per policy	Via Datix	Ward manager	Six monthly	CYPICS CPM



Spillages handled as per policy	Via Datix	Ward manager	Six monthly	CYPICS CPM
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None

Monitoring and compliance

Key Words

SACT (Systemic Anti-Cancer Therapy), Safe Handling, Children and Young People

The Trust recognises the diversity of the local community it serves. Our aim therefore is to provide a safe environment free from discrimination and treat all individuals fairly with dignity and appropriately according to their needs.

As part of its development, this policy and its impact on equality have been reviewed and no detriment was identified.

CONTACT AND REVIEW DETAILS	
Policy Lead Lead (Name and Title) Dani Jones, CYPICS Educator	Executive Lead Chief Medical Officer
Details of Changes made during review: Changed from 'guideline' to 'policy' following PGC review. Slight amendments to wording following PGC review.	