

LRI Children's Hospital

Fast Priming of Administration sets for Intravenous Systemic Anti-Cancer Therapy in Children and Young People

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| Staff relevant to: | Children's Hospital staff that are trained to administer SACT. |
| Approval date: | March 2025 |
| Revision due: | March 2030 |
| Written by: | D Jones |
| Version: | 2 |
| Trust Ref: | C9/2024 |

1. Introduction and who this standard operating procedure (SOP) applies to

Systemic Anti-Cancer Therapy (SACT) is administered via a multitude of routes, including; oral, sub-cutaneous, intramuscular injection, intravenous and intrathecal. This SOP will focus on the administration of intravenous (IV) SACT given as an infusion.

Purpose

To outline the correct process for the fast priming of intravenous infusion sets for intravenous SACT.

Background

SACT is prescribed on the electronic prescribing system Chemocare by a doctor who has been assessed competent and who is on the chemotherapy register found on the intranet. IV SACT is prescribed and given as per the protocol for that patient's diagnosis. IV SACT given as an infusion can be prescribed over a variety of hours, for example; 1 hour, 4 hours, 24 hours, 72 hours. During the preparation process the infusion giving set is primed to the end of the line with the compatible fluid for example sodium chloride 0.9% or glucose 5% as a safety precaution to ensure there is no SACT exposed at the end of the giving set. This is standard local practice; this compatible fluid is not prescribed as part of the Chemocare prescription.

In the instance where SACT is prescribed over a long period of time (e.g. 24 hours) at a slow rate the fluid which is in the giving set is 'fast primed' once attached to the

patient, otherwise as the volume of the fluid line is not included in the prescription it has the potential to add on a number of hours to the total running of the SACT, delaying the length of the patients admission and potentially delaying subsequent administrations of SACT on subsequent days.

General principles

The fast priming process must be completed by two SACT competent nurses, one of whom must be a SACT giver and one of whom must be a SACT checker as a minimum. Both SACT competent nurses must maintain the competence through an annual assessment conducted by the CYPICS Clinical Educator (Appendix 1).

The fast prime is done at the patient's bedside after the SACT has been prepared and checked against the Chemocare prescription in the clean utility.

| | Procedure | Rationale |
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| 1. | Both nurses confirm positive identification of the patient as per Trust policy. Ensure NHS number/hospital number is confirmed on the wristband against the Chemocare prescription. | To confirm the correct SACT is administered to the correct patient. |
| 2. | Using an ANTT (as per Trust policy) approach, confirm the patient's intravenous access is patent by obtaining a 2ml discard. | To ensure the SACT is administered in to the correct location and prevent the risk of extravasation. The use of ANTT to reduce the risk of contamination of the IV access. |
| 3. | Connect the giving set to the patient's intravenous access (most commonly a central line in CYP). | To be able to administer the SACT. |
| 4. | Turn on the infusion pump, set a volume to be infused (VTBI) of 12mls. Set the rate to run at 900ml/hr. Second nurse to check and confirm this is programmed correctly. | To safely run the SACT to approximately $\frac{3}{4}$ of the giving set without reaching the patient. |
| 5. | Commence running the programmed VTBI. At no point must the pump be left | Fast priming the volume of the giving set will allow the SACT to run to the prescribed time, prevent delays in further SACT administration for that course and prevent |

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| | <p>unattended whilst the fast prime is in process.</p> <p>N.B. if the emergency buzzer is raised, the first nurse must make the pump safe by turning the pump off and clamping the patient's line. Once the emergency is resolved, both nurses must return together and commence the SACT at the prescribed rate and the fast prime must be abandoned.</p> | <p>unnecessary delays in the patients hospital stay.</p> <p>This is a safety element that will prevent the SACT running at the incorrect rate.</p> |
| 6. | Once the VTBI is complete, set the pump at the prescribed rate and continue administration as per Chemocare prescription. The setting of the prescribed rate must be checked by both nurses. | To enable the patient to receive their treatment. |
| 7. | Document in the nursing notes that the SACT was commenced with a fast prime as per this SOP. | To ensure adequate documentation. |

3. Education and Training

An annual Nursing SCAT competency assessment conducted by the CYPICS Clinical Educator must be maintained.

4. Monitoring Compliance

None

5. Supporting References

UHL (2022) Administration of medicines for inpatients LMC chapter 6
[Administration of Medicines for inpatients LMC Chapter 6](#)

UHL (2021) Aseptic Non Touch Technique UHL Guideline
[Aseptic Non Touch Technique UHL Guideline](#)

NUH (2019) Positive Identification of Patients Procedure
http://nuhnet/nuh_documents/Documents/CLCGP037.doc

NUH (2021) Aseptic Non-Touch Technique (ANTT) policy
http://nuhnet/nuh_documents/Documents/CLCGP072.doc

6. Key Words

Chemocare, Infusion, SACT

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 | |
|---|--------------------------------------|
| SOP Lead (Name and Title) Dani Jones - Clinical Educator for Children and Young Adults CYPICS | Executive Lead Chief Nurse |
| Details of Changes made during review: No Changes | |

Appendix 1: Annual Systemic Anti-Cancer Therapy (SACT) Assessment

As a Registered Nurse who is trained to administer SACT you must undertake an annual assessment of your competence. As part of this process, both your theoretical knowledge and your practical skills must be reassessed.

Theoretical assessments please answer the following questions with your assessor:

1. Briefly discuss the action of cytotoxic drugs on the body; *what is the aim of using SACT agents, discuss the purpose of combination SACT, discuss why SACT is given roughly in 3 weekly cycles, label the cell cycle and explain what happens in each phase*
2. - Identify common side effects of SACT and relevant preventative measures.
- Discuss the side effects of the following SACT agents; *vincristine; methotrexate, etoposide, cytarabine, daunorubicin/doxorubicin, ifosfamide/cyclophosphamide, cisplatin/carboplatin, bleomycin, peg asparaginase*
3. Discuss the measures taken to maintain safety of yourself and others and show knowledge in the following areas; *how the patient is clerked for SACT, collection of SACT, storage, preparation and checking, administration, disposal of SACT, handling of bodily fluids, spillage of SACT and extravasation*

Self-declaration:

I feel competent in the procedure of handling cytotoxic SACT and in the administration of cytotoxic SACT.

I am competent and up-to-date in IV and CVL administration.

I accept professional accountability and responsibility in continuing to undertake this role and am up to date with local policies and procedures.

Date assessment
undertaken.....

Name of
Nurse.....Signature.....

Assessor/Clinical
Educator.....Signature.....