

MEDICATION: ADMINISTRATION & HANDLING (NON-CYTOTOXIC) - SCH

PRACTICE GUIDELINE[®]

DOCUMENT SUMMARY/KEY POINTS

This document covers the general principles of **medication administration** at SCH for most routes of delivery including oral, enteral, rectal, topical, by injection or by infusion.

This document is to be read in conjunction with:

- [Medication Handling in NSW Health Public Health Facilities PD2013_043](#)
- Medication delivered by inhalation: [Inhaled Medication: Administration - SCH](#)
- Cytotoxic medications (excluding antibiotics): [Cytotoxic and Hazardous Drugs – SCH](#)

- A medical officer, dentist or nurse practitioner must prescribe all medication on the approved inpatient medication chart or anaesthetic record.
- Schedule 4D and Schedule 8 medication must not be administered to patients without the prior written authorisation of a medical officer or dentist.
- Medications may be checked and administered by nurses, medical officers, dentists or pharmacists only. With the exception of the medications listed in [Section 3](#), all medications must be checked by two persons prior to administration.
- Aseptic technique must be used to prepare and administer all injectable medications.
- All intravenous medications must be administered in accordance with the **SCH Paediatric Injectable Guidelines**
- All intravenous medications must be labelled according to NSW MoH [PD2016_058](#)
- Student nurses may administer non-cytotoxic medications, under the conditions listed in [Section 15](#).
- For administration of immunisations there is additional documentation required. Please refer also to the [SCHN Immunisation guideline](#).
- Parents/carers now administer all medication to their child on Care By Parent Unit. Medical officers are to assess the competence of the parent to safely administer as part of admission process.

This document reflects what is currently regarded as safe practice. However, as in any clinical situation, there may be factors which cannot be covered by a single set of guidelines. This document does not replace the need for the application of clinical judgement to each individual presentation.

Approved by:	SCHN Policy, Procedure and Guideline Committee	
Date Effective:	1 st January 2016	Review Period: 3 years
Team Leader:	Director of Nursing	Area/Dept: Nursing - SCH

CHANGE SUMMARY

- Added a link to the MoH Policy Directive on the front page.

READ ACKNOWLEDGEMENT

- All SCH clinical staff who prescribe, dispense or administer medication must read and acknowledge this document

Training Required:

- Prior to administering or checking medications, all nurses must successfully complete:
 - Medication administration learning packages and assessments.
 - Drug Calculations “**Fundamentals of Paediatric Medication Safety**” should be completed yearly through [HETI Online](#).
 - Nurses who have achieved mastery in written and practical assessments in drug calculations, medication administration and intravenous medication administration, may check and administer non-cytotoxic intravenous medications.

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1 Standard

1. Schedule 4 and Schedule 8 medication must not be administered to patients without the prior written authorisation of a medical officer, nurse practitioner or dentist.
2. A medical officer, nurse practitioner or dentist must prescribe all medication on the approved inpatient medication chart or anaesthetic record.
 - i. NB: Nurse Practitioners employed by NSW Health are therefore authorised to prescribe, use, possess or supply, in line with their scope of practice, those poisons, restricted substances and drugs of addiction included on the NSW Nurse Practitioner formulary. [PD 2012_026 Nurse Practitioners in NSW](#) ^[2].
3. Medications may be checked and administered by nurses, medical officers, dentists or pharmacists only. With the exception of the medications listed in [Section 3](#), all medications must be checked by two people prior to administration.

Note: When medications are being checked and administered by an enrolled nurse, the second checker must be a registered nurse.

4. All nurses must successfully complete drug calculation and medication administration learning packages and assessments prior to administering medications.
5. For administration of medication in the Care by Parent Unit refer to [Section 16](#)
6. Student nurses under the conditions listed in [Section 15](#), may administer non-cytotoxic medications.
7. For administration of immunisations there is additional documentation required.^{[3],[4]} N.B. For immunisation in healthy people by IM or SC injection in the outpatients department or as part of an immunisation campaign, skin cleansing is not required unless the skin is visibly dirty. Please also refer to the [SCHN immunisation policy](#) ^[3].
8. All procedures related to administration of medication to patients will observe the [5 Moments for Hand hygiene](#). Hand hygiene will also occur before preparation of the medication in the medication room.
9. All procedures involving intravenous administration or when the administration involves penetration of the skin will be undertaken using an aseptic technique.

2 Principles for safe medication administration

The following principles should be observed on every occasion that an appropriately authorised staff member administers a medication, NSW Ministry of Health, [PD2013_043](#)

A person administering a drug must refer directly to the medical officer/dentist/nurse practitioner's instructions on the medication chart

- In preparing to administer the medication, the nurse(s) and/or medical officer/pharmacist/dentist must check the following:
 - name of patient

- name and strength of the medication against the medication chart order
- the expiry date and physical appearance of the medication
- any warning statements on the label, e.g. NOT FOR INJECTION or CYTOTOXIC MEDICATION. If there is any doubt regarding the medication selected, contact the prescriber or a pharmacist before administering
- prescription for the medication complies with NSW Health and SCH policies
- dose, frequency and route of administration, date and time due and time of last dose
- medication compatibility
- allergy and adverse drug reaction history of the patient
- immunisations require additional checks, refer to SCHN [Immunisation Policy](#)
- Only one patient's medication is to be prepared and administered at a time.
- Where only a portion of an ampoule or tablet is required for a patient, the unused balance should be discarded.
- Prepared medications are to be administered immediately and not left beside the bed.
- The same person(s) must select a medication, administer the medication and record its administration. However, where, for example, a nurse prepares a medication for administration by a medical officer, the medical officer must check the medication before he/she administers it to the patient. In the case of medication which is to be administered over a period of time, such as an intravenous infusion, the maintenance of the infusion may be carried out by more than one member of staff, when there is a change of shift or the patient is transferred to another patient care area.
- For all intravenous, intramuscular and subcutaneous injections and oral schedule 4D and schedule 8 drugs, the two individuals checking the drug must go to the bedside to identify the patient, check patient's allergies/previous adverse drug reactions and observe the administration. (For administration by Student Nurses see: [Section 15](#))
- For other oral, topical, rectal and inhaled medication (non-schedule 4D and non-schedule 8), one nurse/medical officer may administer the drug.
- Persons administering medications to patients must ensure that the patient is not self-medicating with their own supply of medication. Patients own medication must be stored in the medication room for the duration of the patients stay in hospital. (See: [Section 18](#))
- If there are any concerns that a patient is not swallowing medication, or is storing medication, individual patient strategies must be developed to ensure medication is taken.
- Parents/guardians or adolescent patients may administer medication in the presence of the nurse.
- Each time a person administers a medication to a patient, he/she must make a record on the medication chart or anaesthetic record, including time, date and legible signature.
- If there is any doubt regarding the medication prescribed (including dosage, legibility of prescription etc.), the person administering the medication **MUST** contact the prescriber for clarification **PRIOR TO ADMINISTRATION OF THE MEDICATION.**

Outcome

All medication is administered to patients safely, effectively and in accordance with Sydney Children's Hospital and NSW Ministry of Health policies, procedures and guidelines.

3 Single registered nurse administration of medications

The following medications may be administered by a registered nurse without checking with a second registered nurse when the nurse has more than one years' paediatric experience.

Note: This procedure does not apply to student and enrolled nurses.

Medication	Route of administration
Paracetamol	Oral, nasogastric/via gastrostomy, rectal
Antibiotics	Oral, nasogastric/via gastrostomy
Salbutamol	Inhaled
Salmeterol & Eformoterol	Inhaled
Ipratropium bromide	Inhaled
Corticosteroids	Inhaled
Sodium cromoglycate	Inhaled
Nedocromil sodium	Inhaled
Hypertonic saline	Inhaled
Normal saline	Inhaled
Dornase	Inhaled
Antifungals	Oral
Laxatives	Oral, nasogastric/via gastrostomy
Creams, lotions, ointments, bath treatments	Topical
Vitamins and minerals *	Oral, nasogastric/via gastrostomy
Pancreatic enzymes	Oral. Do not crush Pancreatic enzymes!
Drops	Via ear and nose only
Mylanta	Oral, nasogastric/via gastrostomy
Milk formula (does not include breast milk)	Oral, nasogastric/via gastrostomy

* Note: this does not include electrolytes

4 Oral (non-cytotoxic) medication administration

4.1 Standard

1. All oral medications must be administered in accordance with policies, procedures and guidelines for administration of medication within SCH, including Ministry of Health and SCHN documents.
2. Oral/enteral medications, given by syringe, may only be administered using amber coloured oral syringes
3. Where individual patient needs require and the administration of medication to children via an amber coloured oral syringe is, unsuccessful alternatives include: a medication cup; or plastic spoon. The medication is first measured in an oral syringe and transferred to the medication cup or spoon for administration.

4.2 Procedure

1. Perform hand hygiene
2. The administration of oral medication to infants should be given via a 1mL or 3 mL amber coloured oral syringe.
3. Ensure the child or infant is in a comfortable and upright position prior to administration of medication.
4. Administration of oral medications prior to feeding may reduce risk of vomiting medication; however some medications should be given with food.
5. When administering oral medications with a syringe, care should be taken to gently feed the medication into the inner aspect cheek slowly, allowing the child or infant to swallow small amounts. Squirting medication directly into the mouth may cause aspiration, gagging, choking or vomiting.
6. When administering liquid oral medications, a syringe should be used to measure the calculated volume of liquid for administration. The medication is then administered directly with the syringe (See [Standard](#) above for alternatives)
7. If the child is unable to swallow tablets, and the tablets are not enteric coated, they may be crushed and mixed with a small amount of water, jam, raspberry syrup or honey. To allow for easier swallowing, larger tablets maybe cut in halves or quarters.

Medications are not to be mixed with large quantities of food or formula, e.g. a whole meal, as the child may associate the medication with food/formula, and if the food/formula is not completely consumed, the dose administered will be inaccurate.

8. Perform hand hygiene
9. Document administration

5 Gastrostomy & nasogastric or naso/gastrojejunal tubes

5.1 Procedure.

1. Perform hand hygiene
2. Important to use a liquid form of medication, if available. Thick liquid medications can be diluted in water.
3. If tablets are necessary and patient has unsafe swallow, the tablets should be crushed and mixed with water. **Do not crush enteric-coated or time-release tablets.**
4. Draw up medication in and appropriate amber coloured oral syringe.
5. Each medication should be drawn up and administered in separate syringes.
6. Perform hand hygiene
7. Ensure that the tube is flushed prior to and following each medication. The amount of water used will depend on the age of the child and if they are on a fluid restriction.
 - # Infants 3-5mL
 - # Children 5-15mL
 - # Adolescents 10-30mL
8. Medications should not come in contact with formula.
9. Important that the child is sitting upright or semi reclined when administering medications and remain in this position for 30 minutes.
10. For children who have a Gastrostomy Button Device, medications should always be given through attached feeding tube. Do not syringe medications directly into the button as it damages the device.
11. Perform hand hygiene
12. Document administration

Outcome: Enteral Administration

- Medications delivered safely through Gastrostomy Devices, Nasogastric Tubes and Naso/Gastrojejunal Tubes.
- Reduce risk of blockages.

6 Rectal Medications

The rectal route of medication administration may be used for some medications when the oral route is difficult or contraindicated.

6.1 Limitations of Rectal Route of Administration

- Variable absorption
- Evacuation of the suppository
- Acceptance may be culturally influenced
- Generally disliked by children
- Neutropaenic children should NEVER receive rectal medications – due to the increased risk of infection.

6.2 Rectal Administration Procedures

NOTE: Assistance may be required to immobilise young children during the insertion of the drug.

Administration of Suppositories

1. Perform hand hygiene
2. Explain procedure to child (if age appropriate) and significant others.
3. Check if the child needs to empty bowels prior to drug administration
4. Gather equipment required:
 - Medication order
 - Medication (suppository)
 - Lubricant (water soluble jelly)
 - Non-sterile gloves
5. Assistant to help check medication order and help position the child to prevent the risk of injury to the health care worker and/or the uncooperative patient.
6. Check medication according to [Section 2](#).
7. Perform hand hygiene and don **non-sterile** gloves.
8. Ensure adequate privacy and security for child - involve parent, where appropriate (Refer to: Physical Assessment - SCH).
9. Position child in left lateral position.
10. Prepare the medication: remove wrapping from suppository.
11. Lubricate with water soluble jelly or warm water
12. Gently insert the suppository into the rectum as directed by product information
13. After procedure comfort child,
14. Remove gloves and perform hand hygiene.
15. Record administration of medication.

Administration of Liquid Medication Per Rectum

Drugs that can be given using oral preparations via the rectum:

Note. Dose may need to be amended for rectal administration.

- Paracetamol Infant Drops (100mg/mL)
- Sodium valproate liquid (Epilum Sugar Free Liquid™) (NOT SYRUP)
- Carbamazepine
- Paraldehyde
- Resonium (dissolved in water)

Procedure

1. Perform hand hygiene
2. Explain procedure to child (if age appropriate) and significant others.
3. Check if the child needs to empty bowels prior to drug administration
4. Gather equipment required:
 - 8 FG feeding tube
Note: a size 8 feeding tube may be too large for some neonates particularly premature and low birth weight infants – size 6 may be more appropriate for this patient population.
 - Syringe
 - Medication
 - Non-sterile gloves
5. Assistant to help check medication order and help position the child to prevent the risk of injury to the health care worker and/or the uncooperative patient.
6. Check medication according to [Section 2](#).
7. Perform hand hygiene and don gloves.
8. Ensure adequate privacy and security for child - involve parent, where appropriate (Refer to: Physical Assessment - SCH).
9. Position child in left lateral position.
10. Prime feeding tube with medication to be administered
11. Draw up the amount of medication to be administered into the syringe and connect to the feeding tube.
12. Lubricate end of feeding tube
13. Insert tube into rectum and inject contents of syringe, slowly.
14. Hold cheeks of bottom together for 30 seconds
Do not flush feeding tube
15. Remove tube and dispose of equipment
16. After procedure comfort child,
17. Perform hand hygiene
18. Record administration of medication.

Note: The same procedure is used for retention enema's

7 Intravenous (Non-Cytotoxic) Medication Administration

7.1 Standard

1. All intravenous medications must be administered in accordance with this document with particular emphasis on [Sections 1 through 3](#).
2. Nurses who have achieved mastery in written and practical assessments in drug calculations, medication administration and intravenous medication administration, may check and administer non-cytotoxic intravenous medications.
3. **All powdered intravenous antibiotics** must be reconstituted in accordance with the SCH [Paediatric Injectable Guidelines](#) for the reconstitution of antibiotic for injection.
4. Intravenous medication should be prepared immediately prior to administration using aseptic technique.
5. All intravenous medications must be administered in accordance with the SCH [Paediatric Injectable Guidelines](#).

In particular, the compatibility of the intravenous solution to which the intravenous medication is to be added, the volume in which the intravenous medication is to be infused, and the time and rate required to administer the medication must be checked by both persons checking the drug.

In addition: Clause 7.7 [PD2013_043](#) Medication Handling in NSW Public Health Facilities states: *The second person checking the preparation and administration of a medication is responsible for: -*

- *Confirming the identity of the patient, and*
- *Confirming the selection of the correct medication and fluid, and*
- *Confirming that the dose is appropriate and the calculations are correct, and*
- *Confirming that a rate limiting device such as an infusion pump has been correctly set, and*
- *Countersigning the administration on the medication chart against that of the administering person.*

Local protocols should include processes to confirm the suitability of individual staff members to act as a second person checking the preparation and administration of the medications specific to the patient care area."

6. All medicines and fluids removed from the original packaging are identifiable using the NSW Health label set. ([PD2012_007](#)).^[5] All intravenous solutions to which medications have been added must be accurately and adequately labelled with:
 - the patient name and medical record number,
 - name and volume of intravenous fluid,
 - name and dose of medication,
 - date and time of addition,
 - date and time to be discarded,
 - signatures of the persons checking and administering.

i. Preparation and administration is undertaken in one step.

Labelling is not required when the preparation and bolus administration of a single medicine is one uninterrupted process, the syringe does not leave the hands of the person who prepared it and the same person administers the medicine immediately. ([PD2012_007](#))^[5]

7. When intravenous medication is administered by a Registered Nurse in the community, it is acknowledged that a second person may not be available, at the point of administration, to check the medication and its preparation immediately prior to administration. In this instance, a check of the medication, administration fluid and dosage calculation should be made by a second registered nurse, nurse practitioner, medical practitioner or pharmacist, before leaving to visit the client ([PD2013_043](#)).

7.2 Procedure IV medications

1. Perform hand hygiene
2. Clean tray/trolley with 70% alcohol wipes
3. Gather equipment required:
 - Medication order
 - Medication and diluent if appropriate
 - Syringe and needle
 - syringe, (or pre-packaged syringe with medication)
 - drawing up needle (18 gauge)
 - A chlorhexidine containing solution or swab
 - Sharps disposal container
 - Non-sterile gloves
 - Assistant to help check medication order.
4. Check medication according to [Section 2](#).
5. Perform hand hygiene and don **non-sterile** gloves.
6. Open equipment and prepare the syringe with *drawing up needle* using aseptic technique. (see definition: [Section 13](#))
7. Draw up the required amount of medication.
8. Remove the *drawing up needle*, discard in sharps container and expel the syringe contents (air and excess medication) until the correct volume of medication has been reached.
9. If gloves become contaminated: Remove gloves, perform hand hygiene and don new **non-sterile** gloves.
10. Take medication to patient in the kidney dish.
11. Identify the patient and prepare the child and family for the procedure.
12. Re-check the prepared medication against the medication order.
13. Select and prepare the appropriate injection port/hub for the medication.

14. Clean key parts vigorously for 15-20 seconds with 70% alcohol and 2% chlorhexidine.
15. Allow port/hub to dry
16. Connect IV medication or inject IV medication into burette.
17. Remove gloves and perform hand hygiene.
18. Program pump/syringe driver
19. Perform hand hygiene after touching patient surroundings.
20. Discard waste appropriately and clean tray/trolley with 70% alcohol wipes.
21. Perform hand hygiene.
22. Document administration.

8 ***Slow-Push* Intravenous Medication Administration**

8.1 Standard

1. All intravenous push medications are to be administered in accordance with to [Section 1 through 3](#)
2. Nurses administering drugs as a slow intravenous push must adhere to the *Paediatric Injectable Guidelines*.
3. Nurses should refer to the special precautions list ([Section 3](#)) in this document in regard to those medications which, when given intravenously require additional caution.

8.2 Procedure *Slow-Push IV*

1. Perform hand hygiene
2. Clean tray/trolley with 70% alcohol wipes
3. Gather equipment required:
 - Medication order
 - Medication and diluent if appropriate
 - Syringe and needles
 - syringe, (or pre-packaged syringe with medication)
 - drawing up needle (18 gauge)
 - A chlorhexidine containing solution or swab
 - Point of use Sharps disposal container
 - Non-sterile gloves
 - Assistant to help check medication order.
4. Check medication according to [Section 2](#).

5. Perform hand hygiene and don **non-sterile** gloves.
6. Open equipment and prepare the syringe with *drawing up needle* using aseptic technique. (see definition: [Section 13](#))
7. Draw up the required amount of medication.
8. Remove the *drawing up needle*, discard in sharps container and expel the syringe contents (air and excess medication) until the correct volume of medication has been reached.
9. If gloves become contaminated: Remove gloves, perform hand hygiene and don new **non-sterile** gloves.
10. Take medication to patient in the kidney dish.
11. Identify the patient and prepare the child and family for the procedure.
12. Re-check the prepared medication against the medication order.
13. Select and prepare the appropriate injection port/hub for the injection.
14. Clean key parts vigorously for 15-20 seconds with 70% alcohol and 2% chlorhexidine.
15. Allow port/hub to dry
16. Connect syringe and administer IV medication slowly.
17. Remove gloves and perform hand hygiene.
18. Discard waste appropriately and clean tray/trolley with 70% alcohol wipes.
19. Perform hand hygiene.
20. Document administration.

9 Intravenous Medications - Special Precautions List

9.1 Standard

1. This list is to be used in conjunction with [Section 1](#) and [Section 2](#) and any other SCHN or SCH intravenous medication policies ^[3-11]
2. Some medications require special precautions when being administered intravenously. The parameters set out below should be used to guide the administration of such medications.
3. It is the professional responsibility of the nurse to administer the prescribed IV medications in the appropriate manner, and to have adequate knowledge of their actions and potential adverse events.
4. The primary source of information pertaining to intravenous medication administration the SCH [Paediatric Injectable Guidelines](#). It is the responsibility of all health professionals involved in prescribing and/or administering medications to use this resource to guide safe practice. In the event that the Guidelines do not provide

information regarding a particular medication, advice should be sought from the prescribing medical officer or the Pharmacy Department. Decisions about safe IV medication administration should be made in a collaborative manner.

9.1.1 Cardiac Monitoring

The following medications require continuous cardiac monitoring during intravenous administration. This list, though not exhaustive, includes: Inotropes, vasopressors and vasodilators

- Antiarrhythmic agents
- Loading dose digoxin
- Thrombolytic agents and platelet inhibitors
- Potassium at a dose of 0.5mmol/kg/hr (see: [SCH Guideline 2013-7037](#))
- Liothyronine
- IV Phenytoin (See: [SCHN Protocol 2014-9105](#))

9.1.2 Vesicant and Irritant Medications

Medications that are irritant (causes skin irritation or sensitivity) and vesicant (causes blistering of skin), should be administered via a PICC, or a CVAD whenever possible. Occasions when a central or long line should be used include (NB this list is not exhaustive):

- Amiodarone (concentration of 2mg/ml or above)
- Calcium chloride
- Calcium gluconate
- Dopamine
- Noradrenaline
- Sodium bicarbonate 8.4% (4.2% in neonates)
- Glucose (concentration > 10%)
- Cytotoxics ([SCH Guideline 2013-7025](#))
- Potassium chloride > 40mmol/L (i.e. 20mmol/500mL ([SCH Guideline 2013-7037](#)))
- Potassium dihydrogen phosphate (concentration > 0.05mmol/mL)
- Long-term irritant antibiotic therapy e.g. flucloxacillin, vancomycin, erythromycin

9.1.3 Patient Controlled Analgesia (PCA) / Opioid and Ketamine Infusions

- Where medications are administered via "[Patient Controlled Analgesia](#) [PCA], or opioid infusions, only Anaesthetic staff or PCA/Opioid accredited nursing staff (or nurses under supervision of an accredited registered nurse during PCA/Opioid learning and assessment) can be involved in the preparation and administration of these medications and observation of the patient.

For more specific information Please refer to the relevant documents:

- [Intravenous Statim Opioid Administration – SCH](#)

- [Opioid Intravenous Infusions - SCH](#)
- [Parenteral Ketamine - SCH](#)
- [Patient Controlled Analgesia – SCH](#)
- [Recovery Pain Protocol – Paediatric recovery - SCH](#)

9.1.4 Trial Medications

- Trial medications must be administered according to the specific research protocol, which has been approved according to [SCHN Clinical Trials policy](#), and following appropriate education and assessment of staff.

9.1.5 Cytotoxic Agents

Only staff who have been assessed and deemed competent in administration of cytotoxic medications can be involved in their administration.

Note: Some cytotoxic medications require both persons administering or checking the medication to be cytotoxic accredited. Refer to [Cytotoxic and Hazardous Drugs – SCH](#)

9.1.6 Medical Emergencies and Cardiac Arrest

In emergency situations Registered Nurses may administer emergency drugs as directed by a medical officer.

10 Intramuscular Injections

It is recognised that the administration of intramuscular injections is an unpleasant procedure for children and their families. Wherever possible, the use of the intramuscular route for administration of medication should be avoided. Under circumstances where the intramuscular site must be used, the following practices are to be followed. In addition, consideration should be given to the following factors:

- amount and character of the medication to be administered
- amount and condition of the muscle mass
- frequency and number of injections likely to be required
- factors which may impede access to the site or cause contamination (e.g. injured limbs).
- the volume of the drug to be injected

10.1 Standard

1. All intramuscular medications must be administered in accordance with [Sections 1 through 3](#) and with the principles of Aseptic Technique.

- The sites to be used for all intramuscular injections are the vastus lateralis or ventrogluteal.

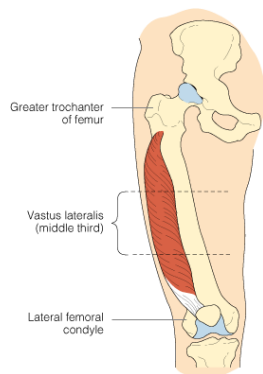


Figure 1. Vastus Lateralis

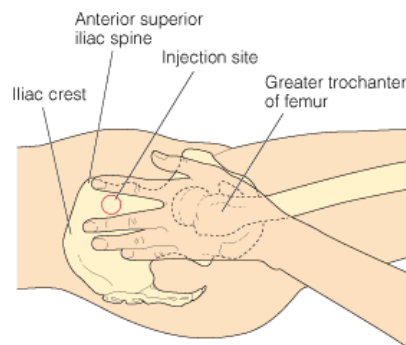


Figure 2. Ventrogluteal

10.2 Procedure (Intramuscular medications)

- Perform hand hygiene
- Explain procedure to child (if age appropriate) and significant others.
- Gather equipment required:
 - Medication order
 - Medication and diluent if appropriate
 - Syringe and needles
 - syringe, (or pre-packaged syringe with medication)
 - drawing up needle (18 gauge)
 - appropriate administration needle 23 gauge (or 25 gauge for neonates or in other circumstances such as failure to thrive).
 - A chlorhexidine containing solution or swab
 - Children and Infants age 2 months or over:** 2% chlorhexidine and 70% alcohol.
 - Neonates and infants less than age 2 months:** aqueous chlorhexidine 0.5%.
 - Cotton wool ball
 - Kidney dish (cleaned with 70% Isopropyl alcohol)
 - Sharps disposal container
 - Non-sterile gloves
 - Assistant to help check medication order and position patient to prevent the risk of injury to the health care worker and/or the uncooperative patient.
- Check medication according to [Section 2](#).
- Perform hand hygiene and don **non-sterile** gloves.
- Prepare the syringe with *drawing up needle* using aseptic technique. (see definition: [Section 13](#))

7. Draw up the required amount of medication.
8. Change the *drawing up needle* for the *administration needle*, and expel the syringe contents (air and excess medication) until the correct volume of medication has been reached.
9. Remove gloves and perform hand hygiene.
10. Take medication to patient in the kidney dish.
11. Identify the patient and prepare the child and family for the procedure.
12. Re-check the prepared medication against the medication order.
13. Select and prepare the appropriate site for the injection.
14. Using Child Life Therapist when available and distraction techniques, position and immobilise the patient/injection site as appropriate.
15. Perform hand hygiene and don **non-sterile** gloves
16. Swab area with chlorhexidine (as above) and allow to dry.
17. Insert the needle at a 90 degree angle for 2/3rds of the needle length.
18. Aspirate the syringe to ensure the medication is not delivered into a blood vessel.
19. Inject the medication slowly.
20. Place a dry cotton wool swab over the site and gently remove the needle, then apply gentle pressure to the site. It is recommended that an alcohol swab is not used as it may cause stinging.
21. Do not resheath the needle. Place the used needle in the nearest sharp disposal bin as soon as possible, preferably at point of use.
22. Comfort the child and family.
23. Remove gloves and perform hand hygiene.
24. Perform hand hygiene after touching patient surroundings.
25. Discard waste appropriately and clean tray/trolley with 70% alcohol wipes.
26. Perform hand hygiene.
27. Document administration.

11 Subcutaneous Medication Administration

11.1 Standard

1. All subcutaneous medications must be administered in accordance with [Sections 1 through 3](#).
2. Sites suitable for subcutaneous injections in children are:
 - PREFERABLY, upper and lower abdomen, avoiding the umbilical area by 5cm
 - all areas of the buttocks
 - anterior, lateral and posterior aspect of the thighs
3. Injections SHOULD NOT be given where there is:
(i.e. The following sites are not to be used for subcutaneous injections.)
 - altered skin integrity, abrasions, lacerations
 - contusions, lesions, bruising or rashes
 - insufficient subcutaneous tissue
 - another injection has recently been given at the site.
4. The following factors need to be considered when determining the most appropriate site for injection:
 - The volume of medication to be injected
 - Amount of subcutaneous tissue available and skin integrity of the site chosen
 - Frequency and number of injections previously given at that site
5. Subcutaneous injections are inserted the full depth of the needle and given at a 90° angle, unless there is insufficient subcutaneous tissue, when a 45° angle should be used.
6. Needles used should be either:
 - 30 gauge insulin syringe 8mm in length
 - Injection device for administration of insulin (e.g. insulin pen using 8mm needle)
 - Pre-packaged syringe with medication
7. Children who receive frequent injections (such as insulin, growth hormone or granulocyte colony stimulating factor), must have:
 - the injection site changed at each injection
 - the injection areas rotated frequently as this helps to prevent lipohypertrophy and therefore maximises absorption.
8. Do not swab skin if administering:
 - i. Insulin injection
 - ii. Immunisation in healthy people by SC injection in the outpatients department or as part of an immunisation campaign, unless the skin is visibly dirty.

9. An **Indwelling Subcutaneous Catheter (ISC)** can be used to deliver: Granulocyte Colony Stimulating Factor (GCSF – Filgrastim), Heparin, Low Molecular Weight Heparin, Desmopressin Acetate (DDAVP), Interferon, Opioids.

11.2 Procedure (Subcutaneous Medication)

1. Perform hand hygiene
2. Explain procedure to child (if age appropriate) and significant others.
3. Gather the equipment required:
 - Medication order
 - Medication and diluent if required
 - Syringe and needles
 - insulin syringe
 - syringe, drawing up needle (18 gauge) and appropriate administration needle
 - pre-packaged syringe with medication
 - A chlorhexidine containing solution or swab
 - **Children and Infants age 2 months or over:** 2% chlorhexidine and 70% alcohol.
 - **Neonates and infants less than age 2 months:** aqueous chlorhexidine 0.5%.
 - Cotton wool ball
 - Kidney dish cleaned using 70% Isopropyl alcohol
 - Sharps disposal container
 - Assistant to help check medication order and help prevent the risk of injury to the health care worker and/or the uncooperative patient.
4. Check medication according to [Section 2](#).
5. Perform hand hygiene and don gloves.
6. Prepare the drawing up needle and syringe using aseptic technique (See definition: [Section 13](#)).
7. If the syringe is not an insulin syringe, injection device, or pre-packaged syringe with medication prepare the blunt drawing up needle (18 gauge) and syringe.
8. Draw up the required amount of medication.
9. If the syringe is not an insulin syringe, injection device, or pre-packaged syringe with medication, change the drawing up needle for the administration needle
10. Expel extra content from the syringe (air and excess medication) until the correct volume of medication has been reached.
11. Remove gloves and perform hand hygiene.
12. Re-check the prepared medication against the medication order.
13. Take medication and chlorhexidine & alcohol swab to patient in a clean kidney dish.
14. Identify the patient and prepare the child and family for the procedure.
15. Perform hand hygiene and don **non-sterile** gloves.

Additional step: Administering medication through Indwelling Subcutaneous Catheter

16. Inspect the Indwelling Subcutaneous Catheter (ISC) insertion site for signs of redness, pain, swelling, exudate, or bleeding and **DO NOT use catheter** if any of these sign exist. Consult the [procedure for removal of Insuflon™](#) Catheter and notify medical team.
17. Select and thoroughly clean the injection site or ISC self sealing membrane with 2% chlorhexidine & 70% alcohol swab and allow the solution to dry (Do not swab skin if giving insulin injection).
18. Position and immobilise the injection site/ISC as necessary.
19. Pinch up a skin fold between thumb and forefinger then insert the needle at a 90° angle (It is important that a correct pinch-up is performed as shown in the diagram below, to prevent an intramuscular injection)

Or

ISC: Insert the needle into the self sealing membrane, rotating the needle gently as it is advanced. Insert the needle through the membrane by not less than 3mm, and not more than 10mm. **DO NOT USE EXCESSIVE FORCE**

20. Inject the medication slowly.
21. Place a dry cotton wool swab over the site and gently remove the needle, then apply gentle pressure to the site. Alcohol swabs are not recommended as they may cause stinging.
22. Do not resheath the needle. Place the used needle in a point of use sharps disposal container.
23. Remove gloves and perform hand hygiene.
24. Comfort the child and family.
25. Perform hand hygiene after touching patient surroundings.
26. Discard waste appropriately and clean tray/trolley with 70% alcohol wipes.
27. Perform hand hygiene.
28. Document administration and location of site.

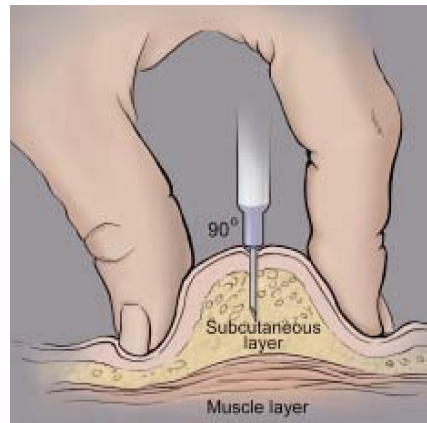


Figure 3. Subcutaneous injection

12 Indwelling Subcutaneous Catheters (e.g. Insuflon™)

This section is based on the guidelines for the insertion, use, and removal of Insuflon™ indwelling subcutaneous catheters (ISC). If another brand of subcutaneous catheter is used then its manufactures instructions need to be followed.

It is recognised some children require daily or continuous medications which can be only given via the subcutaneous route. In an attempt to reduce a child's anxiety and pain an ISC maybe inserted.

Insertion of an ISC is a simple procedure. The ISC is inserted subcutaneously at a 30-45 degree angle. The steel needle, which is used as an introducer is removed. Leaving a soft catheter in place, which can remain insitu for up to 7 days. The Indwelling Subcutaneous Catheter has a self-sealing membrane, in which medication can be injected painlessly.

An ISC can be used to deliver: Granulocyte Colony Stimulating Factor (GCSF – Filgrastim), Heparin, Low Molecular Weight Heparin, Desmopressin Acetate (DDAVP), Interferon, Opioids.

In SCH these catheters are currently being used in: palliative care patients; oncology patients, Opioids administration and for long-term Clexane administration.

12.1 Standard

1. All subcutaneous medications must be administered in accordance [Section 1 through 3](#).
2. Only one type of medication can be given in one indwelling subcutaneous catheter.
3. The dead space of Indwelling Subcutaneous Catheters is negligible; therefore it is unnecessary to flush the catheter pre or post medication delivery. For example an Insuflon™ Catheter is 0.0075mL.
4. The catheter site needs to be changed after a maximum of 7 days or sooner if there are any signs of redness, pain, swelling, exudate, bleeding, or difficulty injecting.
5. Always place the new ISC before removing the old one to ensure rotation of the sites.
6. For administering medication through an ISC see: [Procedure 12.2](#)

12.2 Procedure (Insertion of Indwelling Subcutaneous Catheter)

1. Perform hand hygiene.
2. Explain procedure to child (if age appropriate) and significant others.
3. Select an insertion site. Avoiding skin folds and areas where clothes sit tightly against the skin. The abdomen, anterior lateral thigh, and posterior upper arm are appropriate sites, preferably the abdomen

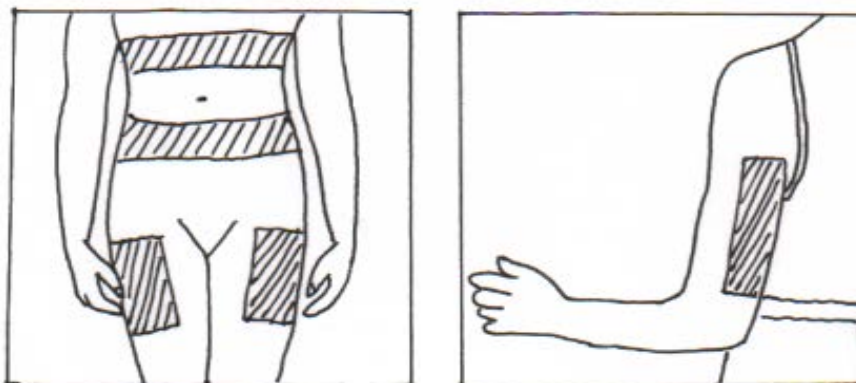


Figure 4. Sites for subcutaneous catheters.

4. In children older than 12 months apply local anaesthetic cream ([LMX4 cream](#) or [EMLA cream](#)) and transparent occlusive dressing or an anaesthetic patch at least 60 minute prior to procedure depending on patient preference.

5. Perform hand hygiene.
6. Clean trolley/tray with 70% alcohol.
7. Gather equipment.
 - A chlorhexidine containing solution or swab
 - **Children and Infants age 2 months or over:** 2% chlorhexidine and 70% alcohol.
 - **Neonates and infants less than age 2 months:** aqueous chlorhexidine 0.5%.
 - One indwelling Subcutaneous Catheter with dressing supplied (this procedure uses *the principles for the insertion of Insuflon™ indwelling subcutaneous catheters* if other brands are used then follow their manufactures instructions)
 - Ensure there is a sharps disposal container where the injection is to take place. It should be positioned so there is only one motion when the sharp is ready for disposal
 - Assistant is to help check medication order and assist position the patient to prevent the risk of injury to the health care worker and/or the uncooperative patient
8. Perform hand hygiene and don **non-sterile** gloves
9. Open the package containing the indwelling subcutaneous catheter and dressing
10. Clean the selected site with a chlorhexidine containing swab (as above) and allow to dry.

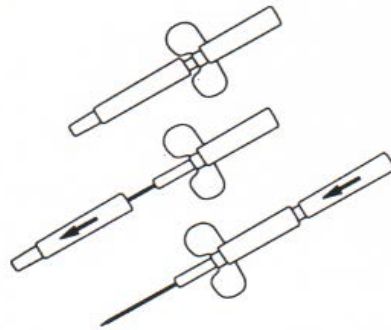


Figure 5. Removing cap from hub

11. Hold the indwelling subcutaneous catheter hub and remove the protection cap



Figure 6. Holding subcutaneous catheter.

12. Place the cap in the rear of the grip.

13. Pinch the skin at the site of insertion.
14. Insert the Indwelling Subcutaneous Catheter bevel up and as far as possible at a 20-40 degree angle in one quick, smooth movement.

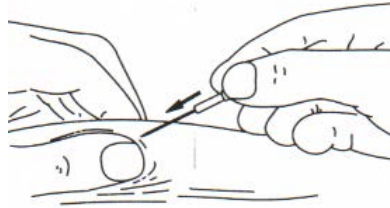


Figure 7. Insertion of subcutaneous catheter needle.

7. Remove the needle by holding the catheter hub firmly and pulling the needle out slowly.



Figure 8. Removing needle from catheter hub.

8. Dispose of the needle in a point of use sharps disposal container.
9. Secure the Indwelling Subcutaneous Catheter by applying the dressing supplied, ensuring the insertion site is visible through the plastic window and the hub is open to the air.
10. Write date of insertion on the dressing.
11. Remove gloves and perform hand hygiene.
12. Comfort the child and family.
13. Perform hand hygiene after touching patient surroundings.
14. Discard waste appropriately and clean tray/trolley with 70% alcohol wipes.
15. Perform hand hygiene.
16. Document procedure and location of site.

12.3 Removal of Subcutaneous Catheter (e.g. Insuflon™)

1. Perform hand hygiene.
2. Explain procedure to child (if age appropriate) and significant others.
3. Perform hand hygiene and gather equipment.

- Tray for collecting non-sharps waste (if any).
 - Non-sterile gloves
 - Point of use sharps container
 - Adhesive dressing.
4. Perform hand hygiene and don non-sterile gloves.
 5. Carefully peel off the adhesive dressing beginning at the catheter end.
 6. Remove the catheter by applying traction to the catheter hub pulling in the direction opposite the skin puncture site.
 7. Dispose of in a point of use sharps container.
 8. Inspect puncture site for redness, exudate or other signs of infection. If signs of infection present take swab for pathology and request review.
 9. Cleanse wound site and apply adhesive dressing if necessary.
 10. Remove gloves and perform hand hygiene.
 11. Discard residual waste and clean tray or trolley with 70% alcohol
 12. Perform hand hygiene
 13. Document removal of Indwelling Subcutaneous Catheter and condition of puncture site in continuation notes.

13 Definitions

- **Aseptic Technique:** “The aim of the aseptic technique is to prevent the transmission of micro-organisms to wounds or susceptible sites, to reduce the risk of infection. Non-Touch Technique refers to the identification and protection of the ‘key parts’ and ‘key sites’ of the IV infusion set. This is achieved by ensuring no part of the liquid infusion/injectable liquid or the key parts are touched directly or indirectly. This is the single most important step in achieving asepsis.
- **CVAD: A Central Venous Access Device:** is an intravascular device whose catheter tip is situated in the superior vena cava, inferior vena cava or right atrium. Central veins within the thorax are utilised to insert CVADs as they are in direct continuity with the right atrium¹³
- **PICC: Peripherally Inserted Central Catheter** are inserted in the cephalic or basilic vein in the antecubital region and advanced through to the central circulation. The exit site for peripheral CVCs is directly above the entry into the vein and they are not tunnelled through the subcutaneous tissue.

14 Schedule 4D or Schedule 8 Drugs

The section details the systems and processes at SCH which control: the supply, storage, and documentation of accountable medications listed under Schedule 4 appendix D and Schedule 8 of the [Poisons and Therapeutic Goods Act 1966](#). These processes include the special additional provisions applicable, which relate to the loss of such medications and particularly specifying if such a loss involves a reportable event.

The scope of the policy includes:

- All wards and departments within SCH Randwick.
- SCH Randwick Pharmacy.

14.1 Standard

1. Only nurses employed by SCH may be involved in the storage, handling and checking of Schedule 4D and Schedule 8 Drugs.
2. Two nurses, one of whom **must be a registered nurse**, are required to check Schedule 8 and Schedule 4D Drugs.
 - i. Schedule 8 medications must be administered by a registered nurse, nurse practitioner, medical officer or dentist.
 - ii. Enrolled Nurses can witness checking and administration of Schedule 8 medication, but they are not permitted to administer S8 medication. (See: [PD2013_043 Section 6.13.2](#))
 - iii. The witness must be present during the entire procedure.
3. If two nurses (Registered Nurse and witness) are unavailable to check the Schedule 4D or Schedule 8 medications, then a Medical Officer or a Pharmacist may fulfil the role of witness.

Note: For Administration of Schedule 4D and Schedule 8 Drugs see [Sub-section 14.17](#) (below)

14.2 Responsibility

The Nursing Unit Manager (NUM) or unit/department Nurse Manager (NM) is ultimately responsible for the storage of all drugs and Drug Registers in their ward, unit or department and for ensuring the compliance with this policy by less senior staff.

This includes:

- Ensuring the correct conditions are met in relation to security and handling of S4D & S8 DRUGS (NSW Ministry of Health [PD2013_043](#)) and delegation of ward Registered Nurses (RN) or Clinical Nurse Specialists (CNS) authorised to order Schedule 4D and Schedule 8 Drugs from Pharmacy.
 - i. Provide pharmacy with a list of names and the signatures of RN or CNS authorised to order Schedule 4D and Schedule 8 Drugs.

- ii. A nurse who assumes control over the Schedule 8 stock for 1 month or more, as NUM, must perform a full balance check immediately on assuming control

RN or CNS currently in charge of a ward, unit or department after-hours or in the absence of the NUM/NM are responsible:

- i. For the storage of all drugs on the ward while in charge.
- ii. To carry the keys for the accountable drugs (S4D & S8).

The **Hospital Pharmacist** and **Director of Pharmacy** will: ensure supply and storage of Schedule 4D and Schedule 8 Drugs in SCH complies with the:

- i. [Poisons and Therapeutics Goods Regulation. 2008](#)
- ii. NSW Health ([PD2013_043 "Medication Handling in NSW Public Hospitals"](#)).
- iii. Record the destruction or loss of S4D and S8 drugs and take such actions as specified in this and other Policy documents.

The **After-Hours Nurse Manager** will be responsible for recording and notifying, loss or destruction of Schedule 8 and Schedule 4D as specified in this document.

14.3 Supply and Storage

1. All Schedule 4D and Schedule 8 Drugs are to be stored in a designated "Dangerous Drug" (DD) cupboard. These drugs must be stored apart from all other drugs or goods.
2. The keys to the S4D and S8 cupboard are to be kept separate from other ward keys.
3. The nurse in charge of the ward (or their delegate), who must be a Registered Nurse, is to carry the keys to the "DD" cupboard. Agency nurses are not permitted to carry the keys to the "DD" cupboard or collect "DD" orders from pharmacy.
4. The Nursing Unit Manager must ensure that the keys are attached to cords that are long enough to be worn over the shoulder and under the arm.
5. Registered Nurses carrying the keys must wear the keys over the shoulder and under the arm – they keys are NOT to be worn around the neck.
6. No keys, cash, documents or other goods may be kept in the drug safe.
7. When a ward area is closed, the keys to that area's Drug Safe must not be placed in another wards drug safe. The keys must be held by Nursing Services (usually held in the After-Hours Nurse Manager's office in their locked cupboard).
8. Wards that are routinely closed for short periods (e.g. overnight and weekends) must be securely locked to prevent unauthorised access. When areas are closed for longer periods (more than 5 days), the S4D and S8 drugs should be counted, placed in a box with the drug registers, sealed and returned to SCH Pharmacy.
9. The Nursing Unit Manager (NUM) or Registered Nurse delegated by the NUM must provide pharmacy with a written requisition in order to obtain S4D or S8 drugs for ward stock.
10. When these drugs are delivered to the ward, or collected from pharmacy, they must be received by a registered nurse that signs and dates a receipt for them. A copy of the order and signature is held in pharmacy. (See: [Signature register PD2013_043](#))

11. The Registered Nurse who collects the drugs enters them into the DD register and must ensure they are locked in the "DD" cupboard immediately on arrival in the ward. The requisition number must be recorded against the entry. (See corresponding [section 14.7](#))
12. Narcotic infusions should only be drawn up for immediate administration, not for later use. The exception being when extenuating circumstances exist and it is not in the best interest of the patient (e.g. post operative intensive care patients). In these circumstances the following must occur:
 - i. A documented order must be received from a medical officer.
 - ii. The order must be checked against the Hospital Opioid order form (which contains the ICU standard dilution orders).
 - iii. The infusion may then be reconstituted in accordance with this policy no greater than 1 hour prior to the patients' arrival.
 - iv. The infusion must be clearly labelled to avoid mix up with other patients' medication.

14.4 Authorised Signatures (to order "DDs")

1. The Pharmacy Department will maintain a list of authorised signatories for each clinical area.
2. These will include:
 - i. The Nursing Unit Manager (NUM) and
 - ii. Registered Nurses delegated by the NUM.
3. Pharmacy will update the SCH Pharmacy Signature Register lists annually and as required. (See: [Signature register PD2013_043](#))

14.5 Destruction of Unusable "DDs"

(Refers to expired drugs, breakage and/or spillage).

If a complete dose is deemed unsuitable for use e.g. Expired, discoloured preparation; broken ampoule; spilt dosage; the following must occur:

1. The Registered Nurse in charge must notify the Director of Pharmacy (or their delegate) of the fact and circumstances.
2. The Pharmacist in the presence of a Registered Nurse may then destroy the drug.
3. The drug register is completed to record that a drug was destroyed and is signed by the Pharmacist and Registered Nurse.

NOTE: Unusable S8 drugs must not be sent to SCH Pharmacy for destruction.

Spillages: If a dosage is spilt, two Registered Nurses should record the details of what happened in a footnote at the bottom of the relevant page in the drug register and the

balance should be adjusted appropriately. The ward pharmacist should be notified as soon as possible to countersign the adjustment.

After hours:

Notify the After-Hours Nurse Manager and amend the drug register, retain the drug container in the "Dangerous Drug" Cupboard until Pharmacy service is available to destroy the drug.

14.6 Recording and Checking

Count the quantity of stock on hand:

1. Minimum of once per shift by one Registered Nurse and one **witness**.
2. Randomly by a member of Nursing Services or a SCH Pharmacist.

NOTE: S4D drugs held in emergency transport packs and resuscitation trolleys are exempted from the requirement for locked storage, provided that the quantity is kept to a minimum, and the packs and trolleys are stored in a position where unauthorised access is prevented (i.e. adjacent to the nurses' station where they can be observed).

14.7 Receipt of New Stock from Pharmacy

- The Registered Nurse who received the drug must enter the quantity of each drug into the appropriate section in the Drug Register. Another Registered Nurse must witness and countersign the register.
- The requisition number of the order must also be entered into the extreme right hand column of the register.
- The same two Registered Nurses must check these amounts against the Requisition Book to ensure they correlate. Both sign the Requisition Book (blue copy).

14.8 Correction to Drug Register

1. There must be no OBLITERATION of entries in the Drug Register.
2. Number all alterations/incorrect entries sequentially as they occur.
3. Enter the sequential number with the comments and signatures in the footnote.
4. The last three lines at the bottom of each page may be left for footnotes and signatures.
5. When transferring entries onto a new page rule through all blank lines in the footnote.

14.9 New Register

- When requiring a new Register, the transfer of balance forwarded from the completed book must be witnessed and countersigned by two Registered Nurses. Old registers must be stored on the ward for seven years prior to being destroyed. (MoH [PD2013_043](#))

14.10 Loss of Drug Register

- In the event that a drug register is lost, the nurse in charge of the ward must immediately report the loss or destruction to the Director of Pharmacy and Director of Nursing who will notify the Pharmaceutical Services Unit at the NSW Ministry of Health of the loss using the notification form.

- The nurse in charge of the ward must immediately carry out a balance check of all drugs held in stock and enter the particulars in a new ward register.

14.11 Discrepancy in Drug Count

1. Immediately investigate any discrepancy between the ward stock counted and the Drug Register. If the discrepancy remains unresolved immediately notify the Nursing Unit Manager or if after hours the After-Hours Nurse Manager. The Nursing Unit Manager/After-Hours Nurse Manager must notify Nursing Services (Directorate Head) and the Director of Pharmacy via the SCH Senior Pharmacist.
2. For discrepancies with S4D & S8 drugs, the following must occur:
 - i. NUM, Pharmacist or outside business hours, the After-Hours Nurse Manager must amend the count in the drug Register
 - ii. The individual finding the discrepancy must complete an incident report.

NOTE: The Director of Pharmacy will take action as required under the Poisons and Therapeutic Goods Regulation, 2008. This will include notifying the Director General and the Police.

14.12 Transfer of Drugs Between Ward/Unit

1. Schedule 4D or Schedule 8 drug/s should be obtained from Pharmacy during business hours.
2. If **after Pharmacy opening hours**, a ward/unit needs additional stock of Schedule 4D or Schedule 8 drug/s these can be obtained another ward. (see: [PD2013_043](#))
 - i. The Registered Nurse ***in-charge*** from the ward requesting the additional stock (who should *where possible* be an Authorised Signatory as per [Section 14.14](#)) will provide a dated, signed written requisition in order to obtain S4D or S8 drugs for ward stock to the ward/unit supplying the stock.
 - ii. A Registered Nurse from the ward/unit that is requesting the drug/s must go to the ward/unit supplying the drug with his/her ward's S4D/S8 Requisition Book with the signed requisition from the registered nurse in-charge.
 - iii. The Registered Nurse from the ward/unit supplying the drug/s will issue the count of the drug/s requested and subtract the quantity of each drug issued from the appropriate section in the drug register and enter the requisition number of the order into the extreme right hand column of the register.
 - iv. The same two Registered Nurses must then check these amounts subtracted from the *Ward Drug Register* against the count requested in Requisition Book to ensure they correlate. The Registered Nurse from the ward/unit supplying the drug/s will sign the other Ward's Requisition Book in the location specified as the issuer, and the Registered Nurse from the requesting ward will sign the requisition book in the location specified receiving the drug. The receiving ward then retains the original (white copy) of the requisition in the supplying ward's *Drug Register*.
 - v. The same two Registered Nurses will then check the remaining quantity of the drug in the cupboard and countersign the supplying ward's Drug Register

- vi. The Registered Nurse who received the drug returns to her/his own ward/unit must enter the quantity of each drug into the appropriate section in the Drug Register. Another Registered Nurse must witness and countersign the register.
- vii. The requisition number of the order must also be entered into the extreme right hand column of the receiving ward/unit's drug register.
- viii. The same two Registered Nurses must check these amounts against the Requisition Book to ensure they correlate. Both sign the Requisition Book (blue copy). (See [Section 14.7](#))

14.13 Excess Stock (In-Date)

- Only useable (in date) stock should be returned to pharmacy (i.e. Tablets in foil or unopened containers of tablets, liquids or ampoules).
- A Registered Nurse and Pharmacist in the ward should destroy broken packs jointly.
- When returning excess stock:
 - i. A Registered Nurse and a pharmacist must write the excess stock out of the Drug Register in the ward as being "returned to Pharmacy".
 - ii. Complete a page in the "DD" requisition book with details of drug being returned to pharmacy (this provides pharmacy with a hard copy record of the return).

14.14 "Left-Over" Drug

- Where only a portion of a dose form of a Schedule 8 medication is required for administration, the unused "left-over" portion **must be rendered unusable** and discarded in the presence of the witness to the administration. e.g. 25 mg remaining from a 100 mg ampoule or part of a tablet, adhere to the following procedure:
 - i. The two Nurses,(at least one Registered Nurse) who "checked out" the dose discard the left over portion. Left over solutions or part ampoules should be discarded into a sharps safe. To discard a left-over part tablet, crush it, mix with a small volume of water, and squirt into sharps bin.
 - ii. The record of discarding any unused portion of the drug must be made on a separate line to the record of administration (next line) and be signed by both Nurses. (See: [PD2013_043 - pages 80-82](#))
 - iii. Disposal of excess medication should not be discharged to the sewer or any process where they may find their way into the environment.

14.15 Procedure when the Drug Keys are Missing (or Taken Home).

- A spare key is located in the SCH After-Hours Nurse Managers office. This will be signed out to the person in charge of the shift. The person in charge is the only person permitted to carry this set of keys.

- If a staff member has taken the keys home they are required to return the keys in person and without delay.
- If the drug keys are unable to be located or returned within 12 hours, the NUM or SCH After-Hours Nurse Manager after hours must call security and have the locks to the cupboard changed.

14.16 Administration S4D and S8 Medications

1. Wash hands
2. Organise equipment
3. Check legality of medication order
4. At the Drug Cupboard designated for Drugs of Addiction
 - i. Read medication order and select appropriate drug (1st check)
 - ii. Check drug label against medication order (2nd Check)
 - iii. Calculate the ordered dose (Registered Nurse and witness to do this independently) (See: [section 14.1](#))
 - iv. Enter details and sign register, using full signature (to allow the person to be identified).
 - v. Check and verify balance of drugs (between Register and counted items in cupboard)
 - vi. Remove correct dosage hygienically (if oral medication)OR
 - vii. Draw up dosage aseptically (if medication for injection)
5. At the patient's bedside:
 - i. Carry out applicable general preparation. (See: [Section 2](#))
 - ii. Identify the patient
 - iii. Check prepared dose against medication order (3rd check)
 - iv. Administer medication appropriately
 - v. Sign medication order

NOTE:

1. If for any reason the drug is not given, a record of this must be made in the footnote of the "DD" register, and in the patient's medical record. (See: [Section 14.14](#))
2. Prepare and administer only one medication for the one patient at any one time
3. Multidose vials must not be used.
4. All staff should be aware that allergy or sensitisation to pharmacological agents can occur through occupational exposure and any concerns should be reported promptly.

14.17 S8 & S4D Administration by Registered Nurse On Day Trips

- 1.** The Administration of Schedule 4D and Schedule 8 Drugs by a Registered Nurse Outside The Hospital: (Day Trips)
- 2.** Children requiring the administration of a schedule 4D or schedule 8 drug during their absence may leave the hospital accompanied by a Registered Nurse, for short visits home or to attend entertainment. This standard has been developed to facilitate such an occurrence.
 - i.** When a Schedule 8 or Schedule 4D drug is required to be given to a patient on leave from the hospital, it is necessary for the prescribing doctor to send a signed prescription to pharmacy which specifies the drug dose to be given, administration details and quantity to be dispensed.
 - ii.** The drug must be dispensed by pharmacy clearly labelled with the dose, quantity and administration details.
 - iii.** The Registered Nurse signs for the prescription on receipt of the drug from the pharmacy.
 - iv.** Prior to leaving the ward the registered nurse that is to administer the drug is to check the dose and calculation with another registered nurse, this calculation is recorded in the patient's notes.
 - v.** Immediately prior to administering the drug the registered nurse must check the drug with another adult (e.g. parent).
 - vi.** For oral drugs if all or part of the drug is not used then it must be returned to pharmacy as soon as possible by a registered nurse.
 - vii.** If pharmacy is closed the oral drug should be locked up in the ward drug safe overnight, recorded in the S8 Drug Register and returned to pharmacy as soon as possible the next day.
 - viii.** For intravenous / intramuscular/subcutaneous injections, if there is any remaining drug which has not been administered to the patient, it must be discarded immediately.
 - ix.** Safe handling of sharps must be undertaken.

15 Administration of medication by Student Nurses

(Student Nurses undertaking clinical experience.)

15.1 Standard

1. Oral medications and Intramuscular or Subcutaneous medication

- May be administered by nursing students who have successfully completed the pharmacy theoretical component of the Bachelor of Nursing and are deemed clinically competent by the university.
- Single Registered Nurse checking of medication ([Section 3](#)) does not apply to medication administration by Student Nurses
- Schedule 4D and Schedule 8 medications may be administered by nursing students under the direct supervision of a Registered Nurse if it is within the student's scope of practice at time of clinical placement.

And

- Must be checked and administered in the presence of two SCH nurses, one of whom must be a Registered Nurse.

And

- THE SAME TWO NURSES WHO CHECKED THE DRUG OR INFUSION MUST WITNESS ADMINISTRATION

2. Intravenous medications and Infusions

- Student nurses are not permitted to add medications to IV infusion bags or flasks.

3. Clinical supervisors

- University employed clinical supervisors are not able to assist with any aspect of medication administration.

Outcome: Administration by Student Nurses

The administration of medication by student nurses will be directly supervised by one registered nurse and one registered or enrolled nurse.

16 Medication Administration in Care By Parent Unit (CBPU)

16.1 Standard

- All patients admitted to the CBPU must have medication prescribed by a medical officer in accordance with [Safe Prescribing Guidelines - SCH](#)
- On admission to the Care by Parent Unit the parent's/carer's ability to competently administer their child's medication must be established initially by the admitting doctor and must be documented in the progress notes.
- Treating staff must confirm with the parent/carer that medications have been administered. A record must be made of each dose taken on the patient medication chart by the authorised person attending to the patient ([PD2013_043](#))^[1].
- One weeks supply of medication will be dispensed from pharmacy, labelled with the patient's name and instructions for administration.
- Patient's medications are to be stored in the lockable drawer in their room. The parent/carer must safely maintain the key
- Parents and carers who are not deemed competent in the administration of their child's medication, should be assessed by the pharmacist and an appropriate education process implemented in consultation with all members of the team.

17 Patient's Private Medications

1. Give any Schedule 4D or Schedule 8 Drug brought into hospital by the patient to the relatives to take home. If this is not possible:
 - i. Seal the medication/s in a clear plastic bag
 - ii. Label clearly
 - iii. Store in ward dangerous drug cupboard
 - iv. Two Nurses, (at least one Registered Nurse) to record the drug name and quantity in drug register on a separate page as individual patients supply.
 - v. To be checked at each shift.
 - vi. Two Registered Nurses to witness and sign in the drug register that the medication has been returned to patient on discharge.
2. Patient's private medications should not be used during their hospital stay unless it is impossible to obtain a supply of that medication from Pharmacy.

18 Additional Medication Resources

- **Australian Injectable Drug Handbook (AIDH)** (Available via CIAP or in hard copy in the drug room on many SCH wards/units.)
- **Micromedex** (Available through [CIAP](#))
- **SCH Paediatric Injectable Guidelines**
http://sch.sesahs.nsw.gov.au/departments/pharmacy/resources/sch_paediatric_injectable_guidelines.pdf
(Hard copy available in SCH Pharmacy and in the drug room of SCH wards and units.)

19 Associated MoH, Network and SCH Documents

1. SCHN Coversheet for "NSW Ministry of Health PD2013_043 Medication Handling in NSW Public Health Facilities" <http://chw.schn.health.nsw.gov.au/o/documents/policies/policies/2014-9027.pdf>
2. SCHN Coversheet for "NSW Ministry of Health PD2012_007 Labelling of Injectable Medicines, Fluids and Lines" <http://chw.schn.health.nsw.gov.au/o/documents/policies/policies/2013-9013.pdf>
3. Safe Prescribing Guidelines – SCH
<http://chw.schn.health.nsw.gov.au/o/documents/policies/guidelines/2012-7007.pdf>
4. Cytotoxic and Hazardous Drugs: Administration and Handling – SCH
<http://chw.schn.health.nsw.gov.au/o/documents/policies/procedures/2013-7025.pdf>
5. Intravenous Statim Opioid Administration – SCH
<http://chw.schn.health.nsw.gov.au/o/documents/policies/guidelines/2013-7032.pdf>
6. Immunisation <http://chw.schn.health.nsw.gov.au/o/documents/policies/guidelines/2014-9047.pdf>
7. Immunisation Services – Authority for Registered Nurses
<http://chw.schn.health.nsw.gov.au/o/documents/policies/policies/2014-9054.pdf>
8. Opioid Intravenous Infusions – SCH
<http://chw.schn.health.nsw.gov.au/o/documents/policies/guidelines/2012-7011.pdf>
9. Parenteral Ketamine - SCH <http://chw.schn.health.nsw.gov.au/o/documents/policies/guidelines/2013-7002.pdf>
10. Patient Controlled Analgesia – SCH
<http://chw.schn.health.nsw.gov.au/o/documents/policies/guidelines/2013-7003.pdf>
11. Recovery Pain Protocol – Paediatric recovery – SCH
<http://chw.schn.health.nsw.gov.au/o/documents/policies/guidelines/2013-1021.pdf>
12. Potassium Administration – SCH
<http://chw.schn.health.nsw.gov.au/o/documents/policies/guidelines/2013-7037.pdf>
13. Phenytoin Administration http://chw.schn.health.nsw.gov.au/o/documents/policies/drug_protocol/2014-9105.pdf
14. Lignocaine 4% cream (LMX4[®]) Nurse initiated Medication
http://chw.schn.health.nsw.gov.au/o/documents/policies/initiated_medication/2015-9021.pdf
15. Lignocaine, Prilocaine (eutectic mixture) 5% cream [EMLA[®] Cream] Nurse Initiated Medication
http://chw.schn.health.nsw.gov.au/o/documents/policies/initiated_medication/2015-9020.pdf
16. SCHN Clinical Trials <http://chw.schn.health.nsw.gov.au/o/documents/policies/policies/2014-9108.pdf>
17. NSW Ministry of Health PD 2012_026 Nurse Practitioners in NSW
http://www0.health.nsw.gov.au/policies/pd/2012/pdf/PD2012_026.pdf

20 Other Reading

18. Australian Government: National Health.& Medical Research Council (2014) The Australian Immunisation Handbook, 10th edition. Australian Government Publishing Service.
<http://www.health.gov.au/internet/immunise/publish.../handbook-Jan2014v2.pdf>
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