

INTRAVENOUS CANNULATION AND VENEPUNCTURE PROCEDURE[®]

DOCUMENT SUMMARY/KEY POINTS

- This document outlines the procedure of venepuncture and inserting, securing and monitoring an intravenous cannula in the paediatric patient by medical and nursing staff.
- This document outlines the accreditation process for RNs & ENs (where venepuncture and intravenous cannulation is part of their clearly defined role and identified within their position description) to undertake cannulation.

Accreditation

- Nurses performing intravenous cannulation or venepuncture must hold current accreditation or be participating in the accreditation program.
- Venepuncture and intravenous cannulation by nurses in the paediatric patient are skills which need to be assessed on an annual basis to ensure competency. A record of five successful cannulations and/or five successful venepunctures during the year should be kept for review and reaccreditation.
- Supported supervised practice & reassessment will be required if regular practice has not been demonstrated over the previous twelve (12) months.
- Refer to “For Staff” tab in ePolicy for Nurse Accreditation Packages or see [Appendix 1](#).

Clinical Care

- Only **two attempts** by an individual staff member to perform venepuncture or insert an intravenous cannula shall be undertaken. This includes any puncture of the skin irrespective of whether the vein has been punctured.
- *Daily review* and assessment is required for the necessity for the cannula to remain in place and remove if no longer required: this includes documenting in the patient notes.
- Cannula site “checks” are required **every hour** and documented.
- All children with an IV cannula with or without fluids, is to have documentation notated in the clinical record for *every shift*.
- Any adverse outcomes e.g. extravasation injuries are documented in **IIMS**.

Safety Alert: Be aware that any patient with cyanotic heart disease and right to left shunting may be at risk of systemic air embolism with introduction of air into the venous system.

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 April 2015	Review Period: 3 years
Team Leader:	Clinical Nurse Educator	Area/Dept: Turner Ward CHW

CHANGE SUMMARY

- Minor review to add the safety alert to the front page.
- Added section on aseptic non-touch technique (for EquipNational purposes)

READ ACKNOWLEDGEMENT

- Training/Assessment Required – Accreditation procedures for RNs and ENs.
- RNs, ENs and relevant managers are to read and acknowledge (sign-off) having read and understood the contents of this document.
- Junior Medical Staff should read this document.

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.

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1 Aims and Objectives

To ensure that venepuncture, intravenous cannulation and ongoing cannula management, are based on the principles of best practice.

To provide timely and safe intravenous access for paediatric patients by nurses who have successfully completed Sydney Children's Hospital Network (SCHN) venepuncture and intravenous cannulation course and have fulfilled ongoing accreditation requirements.

2 Purpose and Scope

Intravenous cannulation and venepuncture are procedures often used to establish a route for medication and/or fluid administration or to obtain a sample of blood for testing.

All staff that are responsible for venepunctures and the insertion and ongoing management of an intravenous cannulae must be appropriately qualified and trained to do so within their scope of practice. ¹⁻⁴

Accredited nurses may:

- Cannulate at the request of a Medical Officer.
- Site/resite cannulae for patients with orders for intravenous therapy after clarification by the medical officer.
- Perform venepuncture for the purpose of collecting blood at the request of the Medical Officer, and for the purpose of collecting samples when pathology staff are un-available.

2.1 Exclusions

(Exclusions should be based on clinical judgement and patient assessment)

The following procedures are not included within the scope of this document:

- Line management with Central Venous Access Devices, Parenteral Nutrition, transfusion of blood and blood components and arterial or umbilical lines.
- Specific advice on management of IV medications or IV fluid management.
- Intraosseus insertion and management.

3 Principles and Consent

Accreditation Principles for Registered Nurses (RN) and Enrolled Nurse (EN)

Refer to [Appendix 1](#) for SCHN Nurse IV Cannulation and Venepuncture Accreditation Packages

- Nurses performing intravenous cannulation and venepuncture must hold current accreditation to do so or be participating in the accreditation program. ⁵
- Nurses eligible to undertake the accreditation program are nurses who, with approval from their Line Manager and upon accreditation, will work in areas where intravenous cannulation and venepuncture occur. ⁶

- Nurses must have successfully completed both the SCHN Cannulation and venepuncture Theoretical Package and specific cannulation and venepuncture practical program of education. See [Appendix 1](#).
- Nurses must practice under the supervision of a senior accredited nurse, CNE/NE/CNS/NP, Anaesthetist or experienced medical staff during the initial accreditation process.²
- To obtain initial IV cannulation accreditation, there must be a minimum of five (5) successful cannulations
- To obtain initial venepuncture accreditation, there must be a minimum of five (5) successful venepunctures.
- To retain accreditation for IV cannulation or venepuncture, on an annual basis, the nurse must provide a record of evidence of having undertaken a minimum of five successful cannulations and/or five successful venepunctures, one of which must be deemed competent by a senior accredited nurse (may be CNE/NE/CNS/NP), Anaesthetist or medical staff.⁷
- Nurses joining SCHN with prior venepuncture and intravenous cannulation accreditation from another institution will be assessed on an individual basis for the requirements of SCHN accreditation.
- The Education Centre/Nurse Educators/Clinical Nurse Educators are responsible for maintaining a register of nurses in the Pathlore/Learning Management System (LMS) database who are accredited to perform intravenous cannulation and venepuncture.
- The Clinical Nurse Educators, Nurse Educators or delegate of an area where intravenous cannulation and venepuncture occur on a regular basis, are responsible for supporting the nurse during the accreditation program (supporting both theoretical learning and skills acquisition) and entering details of yearly reaccreditation achievement into the Pathlore /LMS database.⁴
- It is the professional responsibility of each nurse to approach the Educator and/or Manager in regard to additional/ongoing training and assessment in this extended skill.

General Principles

- Accredited nurses are approved to insert an intravenous cannula into the peripheral veins of the upper and lower limbs. Theatre staff are an exception to this principle as type of surgery may affect limbs available for cannulation.
- IV cannulation and venepuncture are procedures requiring aseptic technique.
- Where clinically appropriate the use of local/topical anaesthetic should be used according to local guidelines.⁸
- It may be necessary to hold a child gently but firmly during clinical procedures to maintain the child's safety and prevent injury. Holding is distinguished from restraint by the degree of force required and the intention.⁹
- Age appropriate distraction and reward techniques should be used in conjunction with holding techniques.¹⁰ Refer to [Appendix 2](#) for information on age-appropriate distraction techniques.
- In neonates who are not nil by mouth, oral sucrose can be given.¹¹ Refer to the Sucrose policy.

- Occasionally sedation such as nitrous oxide or oral midazolam may be required for cannulation. ¹² This should be discussed with a senior registrar or consultant and carried out as per [SCHN Procedural Sedation \(Paediatric Ward, Clinic and Imaging Areas\) Practice Guideline](#).
- **Only 2 attempts** to perform venepuncture or insert an intravenous cannula shall be undertaken by any staff member (medical or nursing), unless there are exceptional circumstances. In this case further attempts must be discussed with the senior clinician. ¹³ This includes any puncture of the skin irrespective of whether the vein has been punctured.
- Medical staff and accredited nurses must exercise professional judgement and may elect not to attempt to do a venepuncture or insert an intravenous cannula if in their opinion they are unlikely to be successful. ¹
- When the insertion of an intravenous cannula has been unsuccessful or it is deemed unlikely to succeed, the Medical Officer responsible for the child's medical care must formulate an appropriate plan. Options may include engaging a more experienced person to cannulate or contacting Anaesthetics or ICU at SCH or Anaesthetics at CHW.
- Should any untoward event occur during the procedure of insertion of an intravenous cannula, the Medical Officer responsible for the child's medical care shall be notified immediately and the event entered into IIMS by the staff who attempted the cannulation.
- A medical order for intravenous fluids, blood products, serial blood sample collection or the administration of medication will constitute a medical order for the insertion of an intravenous cannula.

Consent ¹⁴

- Intravenous cannulation and venepuncture are invasive procedures. Written consent for these procedures is not required.
- Verbal consent should be obtained from the child and/or guardian prior to the procedure. Before consent the staff member must discuss the necessity of and explain the procedure to the child and guardian, in an age appropriate manner, so that the child and guardian has the ability to be fully informed of and understands the process.
- If the guardian or child refuses the procedure, the staff member must inform the medical team of the decision immediately and document the interaction in the patient's medical record.
- Children under the age of 16 years may still give consent or refuse treatment if they have the capacity to understand the implications of assent or refusal. ¹⁴⁻¹⁶

Preparation of Patient

- Developmental age and condition will guide the nurse in appropriate preparation of the infant/child for the procedure. ¹²
- Where possible the play therapist should be involved in helping prepare the child and family. ¹²
- Ideally the procedure should be performed in the procedure room, thereby maintaining the bed as a safe area. Set up distraction tools appropriate to developmental age. ^{10, 12}
- Ensure adequate staff to help.

4 Insertion of Intravenous Cannula Procedure

4.1 Equipment

- Prescribed topical anaesthetic cream and clear occlusive dressing as required
 - **CHW staff**, refer to:
 - **Lignocaine 4% (LMX4®) Nurse Initiated Medication:**
http://chw.schn.health.nsw.gov.au/o/documents/policies/initiated_medication/2011-8030.pdf
 - Or where *sedation* may be required (in the Short Stay Ward), see Section 8.11 in the **SCHN Procedural Sedation Guideline:**
<http://webapps.schn.health.nsw.gov.au/epolicy/policy/4358>
 - **SCH staff**, refer to:
 - **EMLA guideline:** http://sch.sesahs.nsw.gov.au/policy/manuals/clinical/20.02/emla_guidelines.pdf
 - **RN-Initiated Medications guideline:**
<http://sch.sesahs.nsw.gov.au/policy/manuals/clinical/5.01%20nurse%20initiated%20medication.pdf>
- Personal Protective Equipment
- IV cannulation pack
- Tourniquet
- Large 70% alcohol wipe (to clean the trolley)
- Appropriate sized cannula (refer to [Appendix 3](#))
- Sodium chloride 0.9% for injection
- 5mL syringe and T-piece extension primed with sodium chloride 0.9%
- Appropriate sized single use arm board as required
- Tape for securing arm board
- Luer lock syringes/blood transfer device and blood collecting tubes if taking a blood sample.

4.2 Aseptic non-touch technique

When performing the procedure, aseptic non-touch technique and hand hygiene principles must be adhered to. "The aim of aseptic non touch technique is to prevent the transmission of micro-organisms to wounds or susceptible sites, to reduce the risk of infection."²⁵

- Aseptic non touch technique refers to the identification of 'key parts' by not touching them either directly or indirectly. This is the single most important step in achieving asepsis²⁶.
- Key parts refer to the parts that if contaminated with micro-organisms increase the risk of infection.
- Aseptic non touch technique is achieved by using sterile equipment and ensuring that the sterile component of the product does not come into contact with a non-sterile surface.²⁷
- Aseptic non touch technique includes performing hand hygiene at the following times:

- prior to setting up for the procedure and
- prior to application of non-sterile/sterile gloves²⁸ and
- At completion of procedure

This is to protect the practitioner and patient from cross-contamination as per standard precautions.

4.3 Cannula Insertion by Medical staff & Accredited Nurses^{12,13,17,18}

Step	Action	Rationale
1	<ul style="list-style-type: none"> ● Formally identify patient and introduce yourself. ● Explain procedure to the patient and parents. 	<ul style="list-style-type: none"> ● To ensure correct patient¹⁹ and to obtain informed verbal consent.¹⁴ ● To aid in minimising anxiety about the procedure.
2	<ul style="list-style-type: none"> ● Identify suitable veins for cannulation, (if no suitable veins identified, contact Medical Officer) ● For chronic patients who receive cannulas regularly, ask the patient if they have a preferred vein of choice. If unable to utilise their vein of choice, explain your rationale to the patient and the reason why you are choosing a different vein. ● Apply tourniquet and palpate vein ● Ask child to squeeze and relax hand several times if cannulating the hand or arm. ● Determine the gauge of cannula required, (refer to Appendix 2). Selection should take into account: <ul style="list-style-type: none"> ▪ Previous cannulation sites. ▪ Use of non-dominant hand – if possible. ▪ If surgical procedure is required on limb. ▪ Age of patient. ▪ Purpose of cannula 	<ul style="list-style-type: none"> ● Assessing all potential sites for cannulation will allow staff to apply topical anaesthetic cream to three areas. This will ensure that if the first attempt is unsuccessful, subsequent attempts may be undertaken immediately. ● To instil a level of confidence in the experienced patient and thereafter full co-operation from the patient. ● To select the most appropriate vein that meets the clinical need. ● To minimise trauma and potential thrombus development. ● Small cannula minimise damage to intima of vein.
3	<ul style="list-style-type: none"> ● Palpate selected site aiming to choose straight, bouncy vein if possible. Veins with Y junctions should be avoided. Preferred sites: <ul style="list-style-type: none"> ▪ Dorsum of hands ▪ Long saphenous ● Remove tourniquet 	<ul style="list-style-type: none"> ● For patient safety, comfort and optimum infusion flow. ● It is strongly recommended that the ante-cubital fossa should be avoided if at all possible and should only be used in an emergency situation or if IV access is required and no other site is possible.
4	<ul style="list-style-type: none"> ● Apply prescribed topical anaesthetic cream if appropriate as per local policy. For infants check product information for age appropriate usage⁸. ● In infants less than 6 months, oral sucrose can be given 2 minutes prior to and throughout cannula insertion¹¹. Refer to Sucrose guidelines. 	<ul style="list-style-type: none"> ● To ensure adequate pain relief prior to procedure ● Minimise the risk of methaemoglobinaemia
5	<ul style="list-style-type: none"> ● Clean trolley with large 70% alcohol wipe and gather equipment for the procedure. ● Ensure trolley is dry before placing a sterile plastic sheet (used at CHW) or a green plastic tray (used at SCH) into the centre of the trolley. Note: For the purpose of this document, the term 	<ul style="list-style-type: none"> ● Following aseptic technique principles: <ul style="list-style-type: none"> ▪ At CHW: sterile plastic sheet acts as an aseptic field where sterile equipment may be placed. Note: sterile sheet has a 2.5cm non-sterile border.

	<p><i>'aseptic field' is used to collectively identify these items because the principles are applied differently at CHW and SCH.</i></p>	<ul style="list-style-type: none"> ▪ At SCH: sterile items are placed into the green tray; at all times ensure key parts are protected.
6	<ul style="list-style-type: none"> • If topical anaesthetic is used, remove clear occlusive dressings and wipe area clean with tissue. 	
7	<ul style="list-style-type: none"> • Wash hands for 20 seconds if using alcohol-based chlorhexidine hand rub OR 30 seconds if hand washing with 2% chlorhexidine gluconate in 70% alcohol. Refer to Hand Hygiene policy.²⁰ 	<ul style="list-style-type: none"> • To minimise risk of infection²¹
8	<ul style="list-style-type: none"> • Place required equipment onto the aseptic field using aseptic technique: <ul style="list-style-type: none"> ▪ Open sterile IV pack and cannula onto aseptic field. ▪ Open 2% chlorhexidine gluconate in 70% swabs & leave in packaging and place packaging on edge of aseptic field. ▪ Draw up normal saline and prime T-piece if appropriate and place onto the aseptic field. ▪ If taking blood, luer lock syringes are to be opened and placed onto the aseptic field. Ensure blood tubes are available if required. ▪ Open the occlusive dressing pack and place onto the aseptic field. 	<ul style="list-style-type: none"> • T-piece is used to avoid tension being placed upon the cannula and allows easy access for connection to IV administration set.
9	<ul style="list-style-type: none"> • Discuss with parent / carer/ staff member appropriate holding technique and distraction for child during cannulation. • Establish a plan for preparation & distraction with the play therapist. 	<ul style="list-style-type: none"> • To ensure safety of child. • To aid in minimising movement of limb and therefore increase chance of successful cannulation. • Age appropriate distraction techniques minimise anxiety for the child and family.
10	<ul style="list-style-type: none"> • Wash hands for 20 seconds if using alcohol-based chlorhexidine hand rub OR 30 seconds if hand washing with 2% chlorhexidine gluconate in 70% alcohol. • Don non-sterile gloves and apply personal protective equipment 	<ul style="list-style-type: none"> • To minimise risk of infection and provide protection for the staff and the patient if blood spillage occurs.²⁰
11	<ul style="list-style-type: none"> • Apply tourniquet to appropriate limb to engorge vein. • Swab skin over the proposed vein with 2% Chlorhexidine gluconate in 70% alcohol swab and allow to dry. • Swab area firmly but do not rub the skin excessively. • Do not palpate vein after cleaning. 	<ul style="list-style-type: none"> • To minimise microbial contamination.²¹ • To minimise 'shearing' of the skin surface. • To minimise the risk of re-contamination
12	<ul style="list-style-type: none"> • Ensure cannula is in bevel up position. • Hold the skin and vein taut and enter the skin just below or to the side of the vein in one 	<ul style="list-style-type: none"> • To prevent damage to the vein and subsequent haematoma and to ensure a successful, pain-free cannulation.

	smooth motion at the selected angle for the depth of the vein.	
13	<ul style="list-style-type: none"> A 'pop' may be felt as the needle enters the vein and resistance ceases. A 'flash-back' of blood into the cannula should be seen after entering the vein. 	<ul style="list-style-type: none"> Indicates that the cannula is in the vein
14	<ul style="list-style-type: none"> Advance the cannula gently approximately another 5mm. Level the device by decreasing the angle between the cannula and the skin and holding the needle hub firmly, thread the cannula slowly over the needle into the vein. If the needle has been withdrawn from the cannula, it should NEVER be re-inserted whilst still in the vein. 	<ul style="list-style-type: none"> Ensures the cannula is within the lumen of the vein completely. Avoids advancing too far through the vein wall and reduces the risk of 'through puncture'. The tip of the cannula can be dislodged by the needle and enter the blood stream.
15	<ul style="list-style-type: none"> Release tourniquet. Apply pressure to the vein above the cannula tip and remove stylet. 	<ul style="list-style-type: none"> To reinstate blood flow to the area.
16	<ul style="list-style-type: none"> Connect T-piece and flush the cannula with Sodium Chloride, checking for: <ul style="list-style-type: none"> Resistance to flow Pain at site Swelling at site Leakage Connect IV Infusion or apply luer-lock cap (cap not required if using needle-free IV cap with extension T-piece) 	<ul style="list-style-type: none"> To ensure Cannula is within the lumen of the vein and is patent. If cannula not patent after insertion extravasation injuries may result.
17	<ul style="list-style-type: none"> Apply sterile occlusive dressing ensuring that the insertion site can be visualised at all times.  <ul style="list-style-type: none"> Stabilise the limb with appropriate sized single use arm board if required, ensuring that the fingers / toes remain exposed. Use elasticized tape to secure limb to arm board. 	<ul style="list-style-type: none"> To reduce the risk of intrinsic infection and ensure that the site can be visualised with no disturbance to the dressing. To ensure stability of the cannula site. To ensure assessment of limb circulation following arm board application. Do not use a protective cover such as a 'mouse house' as these can result in pressure areas; or bandages as these prevent easy visual monitoring of the cannula insertion site. To prevent risk of restricting circulation to the limb
18	<ul style="list-style-type: none"> If the first cannulation attempt is unsuccessful, one further attempt only may be made before referring to more experienced Medical Officer In Patients with a known bleeding disorder venepuncture/cannulation should be performed by senior clinicians only. 	<ul style="list-style-type: none"> To minimise trauma to the child To ensure patent vein is available for further attempts
19	<ul style="list-style-type: none"> Dispose of all equipment appropriately according to local policy. 	<ul style="list-style-type: none"> To minimise risk of needle stick injury. To minimise contamination with blood products.
20	<ul style="list-style-type: none"> Remove gloves and wash hands. 	<ul style="list-style-type: none"> To minimise infection

21	<ul style="list-style-type: none"> ● Inform child / family of care of cannula and encourage to report: <ul style="list-style-type: none"> ▪ Pain ▪ Swelling ▪ Erythema 	<ul style="list-style-type: none"> ● Allows prompt intervention if problems, such as extravasation, arise with cannula.
22	<p>Document procedure in clinical progress notes:</p> <ul style="list-style-type: none"> ● Verbal consent obtained from parents/carers ● Size & type of cannula ● Insertion point ● Date and time ● Number of attempts ● Use of sucrose, topical anaesthetic cream and/or administration of nitrous gas ● Any blood tests/samples obtained ● Any adverse events during procedure ● Any adverse events during procedure including extreme distress or the need for significant restraint ● Clinician's details 	<ul style="list-style-type: none"> ● Accurate record of intervention ● Provide evidence of number of cannulations child has had. ● Record of difficulty in cannulation which will provide evidence if considering other access routes for child. ● Record of prescribed drugs used

4.4 Tips for Successful Cannulation

- Choose a visible, straight vein that is easily compressed and not over a joint (avoid sclerosed, tortuous or tender veins).
- Ensure the extremity is below the level of the heart to enhance venous filling (it is often useful to drop the hand below the edge of the bed)
- If the limb is cold with associated vasoconstriction, warm the limb with a warm gel pack.
- If no vein is visible use veins that have a relatively fixed position (the long saphenous vein near the medial malleolus, the metacarpal vein on the dorsum of the hand between the 3rd and 4th fingers).
- Go through the skin first and wait until the child has quietened again before trying to enter the vein (rather than attempting both in the one movement).
- There is not always a flashback when the vein is entered (especially with the smaller cannulas or in very dehydrated infants). If you are sure you are in the vein but don't get a flashback (a 'give' is often felt as you go through the vein wall) try and feed the cannula anyway.
- If there is difficulty feeding the cannula, try rotating it or using saline to flush it into the vein.
- Never let go of the limb until the cannula is secured.

4.5 Post Cannula Insertion Care, Monitoring and Documentation

- Documentation by nurses or medical staff performing the procedure shall be recorded in the patient progress notes and should include:
 - Verbal consent obtained from parents/carers
 - Size and type of cannula
 - Insertion point including limb used
 - Date and time
 - Number of attempts
 - Use of sucrose, topical anaesthetic cream and/or administration of nitrous gas
 - Any blood tests/samples obtained
 - Use of arm boards
 - Any adverse events during procedure including extreme distress or the need for significant restraint.
 - How the child was held or if restraint was required
 - Clinician's details

Cannula Care

- There is insufficient evidence to support the theory that heparin prolongs the life of an IV cannula, therefore cannula flushing unless otherwise indicated (e.g. limited circulatory volume) is to be with 0.9% normal saline. Refer to local IV Fluid guideline.

In most cases, intermittent infusions will not affect the life of the cannula and the significant advantage noted in the literature is the practice allows the infant/child or young person to become more mobile and easier to care for in the Hospital environment.²²

- Cannula site "checks" are required every hour²³ – confirmation of site check is made by the staff member initialling on the Fluid Balance Chart.
- Cannula site checks include looking at the insertion site and checking for:
 - Erythema, swelling, heat or tenderness/pain
If there is an extravasation injury (at CHW) refer to [IV Extravasation Management Practice Guideline](#)
 - Dressing security
 - Fingers exposed and circulation to them
 - IV pump pressure verified
- All children with an intravenous cannula with or without fluids, is to have documentation notated in the clinical record for every shift (that is 2 or 3 times per day depending on routine shift times)²³. Documentation should include:
 - Position of cannula (e.g. left cubital fossa)
 - Any intravenous fluids or medication administered
 - Cannula site description – e.g. patent, not inflamed or swollen etc
- Any adverse outcomes e.g. extravasation injuries are documented in IIMS.
- Day number of cannula life – e.g. inserted __/__/__ now day 4.
- Record medical review of need for IV cannula to remain in place
- Document date of removal and condition of IV insertion site.

5 Venepuncture Procedure

5.1 Equipment

- Clean work space
- Personal Protective Equipment
- 2% Chlorhexidine 70% Alcohol wipe
- Appropriate size butterfly needle
- Tourniquet
- Syringe/blood transfer device
- Blood collection tubes
- Gauze
- Bandaid

5.2 Procedure ^{7,17,24}

1. Confirm order for venepuncture for blood sample.
2. Clean hands with 2% Chlorhexidine gluconate in 70% alcohol or alcohol –based chlorhexidine handrub, covering any skin injury present.²⁰
3. Don non-sterile gloves.
4. Check patient identification using two forms of ID on wristband and ask patient (parent or staff) their name and DOB.¹⁹
5. Apply tourniquet to chosen limb.
6. Select most appropriate vein in view of any complications that the patient may have.
7. If the patient has an IV drip, then the other arm should be used. If the arm with the IV drip must be used, then the IV drip needs to be stopped for 2 minutes before proceeding with the collection.
8. Blood should not be collected from a site that has burns, haematomas, fistulas, oedemas.
9. Cleanse the site with 2% Chlorhexidine in 70% alcohol wipe²¹ using a circular motion moving outward from site.
10. Stabilise the vein by applying traction below the puncture site.
11. Inform patient of your intent to puncture the site.
12. Enter the vein directly from above or from the side of the site. With the bevel of the needle upward, puncture the skin at a 15-30 degree angle. Continue to advance until flash back of blood appears.

13. If vein selection and access takes longer than one minute, the tourniquet must be released prior to puncture for at least 2 minutes so that haemo-concentration can disperse and the blood in the vein to be accessed can equilibrate.
14. If you do not see blood return, release the tourniquet and discontinue the attempt. You may attempt another site with a new venepuncture needle.
15. Attach syringe/blood transfer device to obtain blood samples as required.
16. Ensure that the CORRECT ORDER OF DRAW is followed to avoid contamination of specimens.
17. Release tourniquet.
18. When blood collection complete remove needle and apply gentle pressure to site until bleeding stops. Keep arm straight as bending can cause a larger bruise to develop at a wound site.
19. Cover puncture site with dressing/bandaid.
20. Dispose of equipment correctly.
21. Label specimen containers:

At SCH: With correct patient details and send to pathology.

At CHW: With the correct corresponding Pathnet Millenium Accession sticker labels and send to pathology. **Note:** Crossmatch tubes MUST be hand labelled according to the ZERO TOLERANCE POLICY. Refer to: [SCHN Transfusion of Blood and Blood Components Policy](#).

6 References

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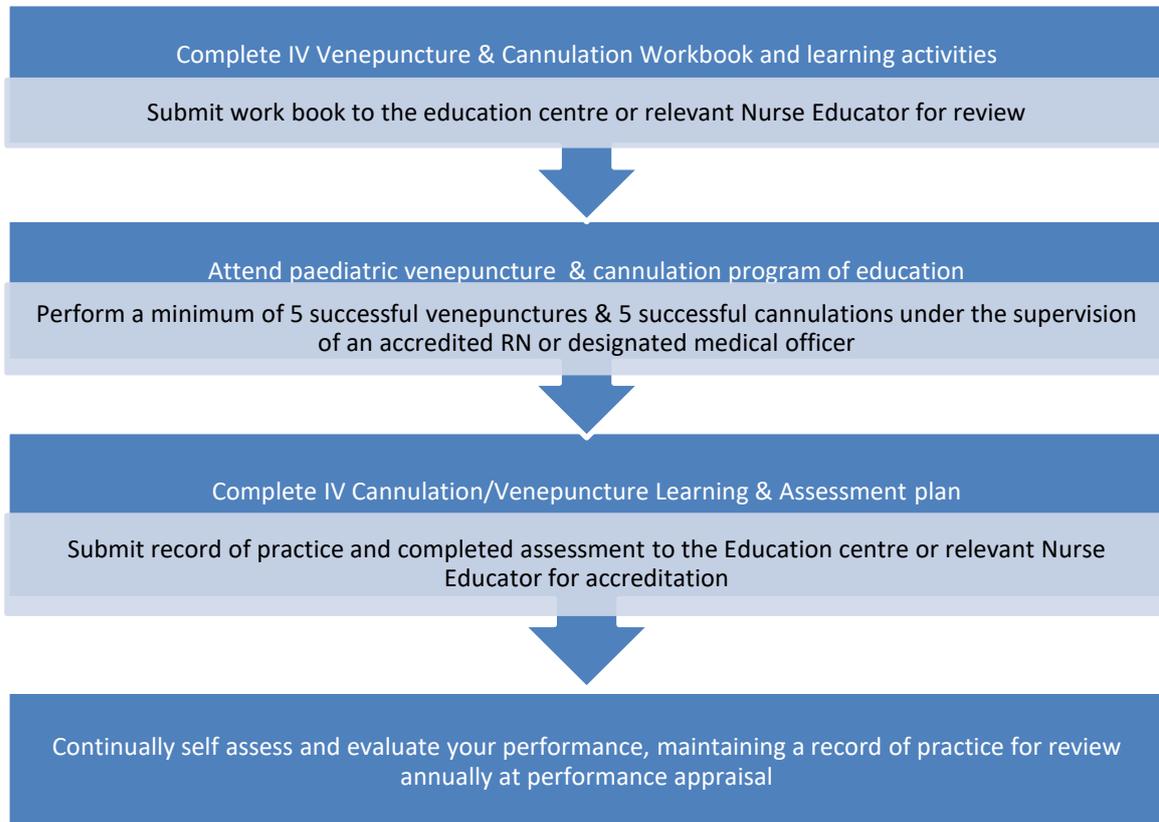
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Appendix 1 – SCHN Nurse Accreditation Packages

Intravenous Cannulation and Venepuncture Competency Framework for Initial/Continuing Accreditation



Intravenous Cannulation and Venepuncture Workbook

- <http://webapps.schn.health.nsw.gov.au/epolicy/policy/2993/attachments/5400/download>

Assessment Plan – Intravenous Cannulation and Venepuncture

- <http://webapps.schn.health.nsw.gov.au/epolicy/policy/2993/attachments/5399/download>

Record of Evidence – Supervised Practice

- <http://webapps.schn.health.nsw.gov.au/epolicy/policy/2993/attachments/5399/download>

Record of Practice – Maintenance of Competence

- <http://webapps.schn.health.nsw.gov.au/epolicy/policy/2993/attachments/5399/download>

Appendix 2 – Distraction Tips

Distraction Tips		
AGE	Distraction	After
0-1 year	Relaxation Music Touch Massage Parents calm voice	Cuddles Toys Soft voice
1-3 years	Relaxation Music Light & Sound Toys Pop-up Toys Bubbles Counting	Sticker Toys TV/Movie
3-6 years	Favourite music Bubbles Books Magnet Books	Sticker Craft pack TV/Movie
6-10 years	Favourite music DVD Breathing Squish Ball Talking about Favourite Things	Sticker Craft pack TV/ DVD
10-15 years	Favourite Music Jokes Books Squish Ball Search and Find Book	Verbal reward Ask if they have any questions regarding what just happened
15+	Relaxation Jokes Breathing IPOD Computer Games	Verbal rewards Ask if they have any questions regarding what just happened
<p>By K.Goymour, Dept. Rec & Play Therapy, Kirsty-Leah.Goymour@sesiahs.health.nsw.gov.au Reviewed May 2008.</p>		

Appendix 3 – Clinical Applications for sizes of Cannula

GAUGE	APPROX SIZE (mm)	APPLICATIONS
14G	2.0	Rapid transfusions of whole blood
16G	1.7	Rapid transfusions of whole blood or blood components
18G	1.2	Surgical and other patients receiving blood components or large volumes of fluids
20G	1.0	Patients on up to 2-3 litres of fluid per day, patients on long term medication
22G	0.8	Patients on long term medication, oncology patients, paediatric patients, adults with small veins. Administration of all fluid types.
24G	0.6	Children, neonates or older patients with particularly fragile veins. Administration of all fluid types at maintenance rates