



Title	Intravenous Therapy and Peripheral Cannulation
Document Type	Standard Operating Procedure
Version number	PX030/06.1
Approval/Issue date	August 2020 (minor amendments made 2022)
Review dated	July 2023
Approved by	IV Therapy Governance Group
Owner/Person Responsible	Jan Turnbull (Clinical Practice Facilitator)
Developed by	IV Therapy Governance Group
Reviewed by	Christine Irving (Clinical Practice Lead) Jan Turnbull (Clinical Practice Facilitator)
Healthcare Inequality Impact Assessed <small>(statutory for policies)</small>	N/R

Uncontrolled when printed

Contents

Section	Title	Page
1.	Introduction	4
2.	Infection Control	4
3.	Medicine Management	5
4.	Flushes	5
5.	Infusion Devices	5
6.	Administration of Cytotoxic Agents	6
7.	Administration of Blood Transfusion	6
8.	Documentation	6
9.	Patient Monitoring	6
10.	Risks associated with Intravenous Therapy and their Management	6
11.	Training pathway for IV Therapy	8
12.	Monitoring Compliance	11
13	Transferability of Clinical Skills	11
14.	Associated NHS Borders Documents	11
15.	Supporting References	12
	Appendices	
A1	Intravenous Therapy Preparation and Administration in Near Patient Areas	13
A2	Intravenous Therapy – Withdrawing solution from an ampoule glass or plastic into a syringe	15
A3	Intravenous Therapy - Withdrawing Solution or Suspension from a Glass Vial into a Syringe	16
A4	Intravenous Therapy - Reconstitution of Medication in Powder Form and Removal from Vial into a Syringe	17
A5	Intravenous Therapy – IV Bolus Administration	18
A6	Intravenous Therapy – Adding medication to an Infusion	19

A7	Intravenous Therapy – Diluting medication for use in an Infusion Pump or Driver	20
A8	Insertion of peripheral Vascular catheters	22
A9	IV preparation equipment guide	24
A10	IV preparation equipment guide	25
A11	Definitions	26
A12	Example of a Visual Infusion Phlebitis Score	28
A13	Transferability of Skills Form – Assessment of Training Requirements	29
A14	Summary Framework for Transferability of Skills Process	30
A15	Five Moments of Hand Hygiene	31
A16	University Clinical Skills Information	32

Standard Operating Procedure for Intravenous Therapy and Peripheral Cannulation

1. Introduction

NHS Borders recognises that its most valuable asset is the staff it employs, without whose skill, support and commitment it would be impossible to provide the high quality care which is the core business of the organisation. These guidelines and its associated procedures provide information relating to the use and maintenance of peripheral vascular catheters for Intravenous (IV) therapy and chemotherapy.

1.2 Purpose

These procedures will enable the user to reduce the risk to patients and staff. For patients these risks include phlebitis, local and systemic infection, thrombosis, thrombophlebitis, pain, and inappropriate cannula insertion. For staff, risks include occupational sharps injury, and blood spillage. The document covers Intravenous therapy and maintenance of IV therapy devices in adults only.

1.3 Scope

These procedures apply to **all** staff involved in IV therapy and cannulation within their role at NHS Borders. IV therapy forms an integral part of professional practice for Registered Nurses/Midwives and nursing/midwives students at relevant stage of learning (please see appendix 16, University Clinical Skills), who will be expected to maintain and develop their competence in accordance with the NMC Code (2015). Assistant Practitioners can be second checkers for non complex IV medicines.

The following IV prescriptions/procedures require 2 Registered nurses to independently 2nd check:

- Medicines that require blood investigations /interpretation
- Doses that are weight related
- Infusions requiring specific ongoing monitoring of the patient
- Patients with more than one concurrent infusion
- Medications identified for Bolus infusion as high risk (identified during IV study day)

IV Therapy and peripheral vascular catheter competency will be demonstrated via the Competency, Assessment, Recording System (CARS) hosted on learnpro.

2. Infection Control

All cannulation and IV therapy administration requires the use of aseptic non touch technique and observation of standard precautions and product sterility.

- 2.1** When performing hand hygiene the Health Care professional must be bare below the elbow with no nail varnish or false nails, plain wedding band only – no stoned rings. Please refer to the hand hygiene policy at: <http://intranet/resource.asp?uid=17072>.
- 2.2** It is important to decontaminate hands with soap and water or alcohol gel before and after each patient contact and before applying / removing gloves (Saving Lives 2011).

2.3 Cleansing of skin, and relevant equipment such as ports, ampoules and blood bottles must be undertaken using the appropriate Chlorhexidine 2% with 70% alcohol wipe. Clean for a minimum of 15 seconds and allow to air dry. In the event of patient allergy to Chlorhexidine 2 %, use povidone iodine (10% in aqueous solution) as an alternative cleanser if compatible with equipment (see manufacturer's guidelines).

3. Medicines Management

3.1 Refer to the Code of Practice for the Control of Medicines regarding correct prescribing and administration of medicines which can be accessed at: <http://intranet/resource.asp?uid=4378> and the NHS Borders Transfusion Policy which can be accessed at: <http://intranet/resource.asp?uid=33271> for the correct authorisation of blood products.

3.2 Where ready prepared Potassium solutions are not available and if there is a sound clinical reason for KCl 15% to be used for addition to an IV fluid, Please refer to: [Potassium Chloride advice \(KCl\)concentrate solutions](#) available on the intranet.

For further information contact: Pharmacy Department, NHS Borders
Further information can be accessed from Medusa-National computer based system.

4. Flushes

4.1 Recommendations for the administration of IV flushes are:

- Syringes used for flushing must be luer lock with a minimum size of 10mL.
- The line must be flushed before administration, after administration and in between every consecutive medicine administration to prevent potentially incompatible medicines from mixing in the IV line.
- All flushes must be compatible with the medicine and checked against manufacturers guidelines prior to administration.

4.2 Push pause and positive pressure techniques must be used for all flushes

For Peripheral Cannulae 5 - 10mLs 0.9% sodium chloride for injection (or recommended compatible alternative) should be used to flush prior, between medicines and after medicine administration or at least once daily. All staff should refer to the Intravenous Flush Policy which can be accessed at: <http://intranet/resource.asp?uid=37081>.

5. Infusion Devices

5.1 The Registered Nurse/Midwife/Students must have received training in relation to the device being used. Competency has to be maintained and recorded. Please refer to the medical Infusion Device Policy at: <http://intranet/resource.asp?uid=26947>.

6. Administration of Cytotoxic Agents

Administration of Cytotoxic agents should follow relevant organisational policies and Procedures. (Safe Delivery of Systemic Anti-Cancer Therapy) Clinical guidelines are available on the intranet.

7. Administration of blood transfusions

There are 2 different types of administration sets for blood transfusion, one for free flow administration and one for the Alaris infusion pump. Both have an integrated filter. Administration sets for blood transfusions should be removed immediately when the transfusion is complete or changed at least every 12 hours in accordance with the NHS Borders Transfusion Policy. <http://intranet/resource.asp?uid=33271>

Competency assessment checklist for the Administration of Blood Components is available on the e- Portfolio (CARS). The NHS Borders Transfusion Policy is also available on the intranet for staff as part of the programme.

8. Documentation

- 8.1 Report any adverse reactions to the Prescriber, and complete a DATIX incident form and document in notes.
- 8.2 All documents and record keeping to be maintained as per Record Keeping Policies.

9. Patient monitoring

- 9.1 Patients receiving intravenous therapy must be monitored using the NEWs observation chart. Fluid balance must be monitored and documented for all patients receiving continuous IV therapy. All observations to be decided upon according to individual patient assessment and therapy required and recorded in the patients care plan.
- 9.2 Any fluid restricted patients who require IV therapy should be assessed by the Medical Practitioner and strict fluid intake should be prescribed and observed.

10. Risks Associated with Intravenous Therapy and their

Management 10.1 Infiltration

Infiltration is defined as the inadvertent administration of non-vesicant (non- caustic) medication or solution into the surrounding tissue instead of the intended vascular pathway (RCN Standards for Infusion Therapy 2016).

Registered Nurses/Midwives need to be able to demonstrate knowledge regarding the recognition, prevention, management and reporting of infiltration.

Should infiltration occur, administration of the medicine must be discontinued Immediately and remove the peripheral cannula. On-going monitoring is required due to the risk of compression to nerves and acute limb compartment syndrome – pain/sensation, pulse in limb, perfusion.

10.2 Extravasation

Extravasation is defined as the 'inadvertent administration of a vesicant (caustic) medication or solution into the surrounding tissue instead of the intended vascular pathway' (RCN Standards for Infusion Therapy 2016). Registered Nurses/Midwives need to be able to demonstrate knowledge regarding the recognition, prevention, management and reporting of extravasation. Risk factors relate to medicine/patient/device/clinician.

10.3 Extravasation is a Medical Emergency

Prompt and immediate assessment and treatment needs to be commenced

Discontinue medication administration immediately.
Disconnect but keep syringe/administration set containing medicine to ascertain volume delivered. Aspirate residual medicine.
Treatment requirements to be determined **prior** to removal of Venous access device. Therefore do not remove any Venous Access Device.
Central Venous Catheters would be required to be removed if appropriate.
The patient requires on-going monitoring; pain, limb perfusion and NEWS. Document time, site of injury, details of drug and diluent. Complete Datix form.

10.4 Speed Shock and Fluid Overload

Speed Shock and fluid overload can occur when a medication or Infusion is too rapidly introduced to the circulation.

Signs and symptoms of speed shock include, headache, dizziness, chest tightness, tachycardia and hypotension.

For prevention of speed shock, the Registered Nurse needs to have knowledge of the recommendations regarding speed or rate at which a medication should be administered. The prescription should be referred to at all times: any discrepancies or concerns should be raised with the prescriber. Signs and symptoms of fluid overload include restlessness, dyspnoea, cough, tachycardia, hypertension, and low oxygen saturations.

Regular monitoring of the patient is required during the administration fluids, including the NEWS Observation Chart, fluid balance charts, blood pressure, pulse, respiratory rate and oxygen saturations.

If any of the signs and symptoms of speed shock or fluid overload are present, stop the infusion and seek urgent medical advice.

10.5 Phlebitis and Infection

Phlebitis of the peripheral cannula site is identified by observation of pain, erythema, oedema, possible palpable cord. If this is present remove cannula. Document on patient's the chart and notes.

Infection may be identified by the above signs and symptoms plus raised body temperature, increased pain and raised inflammatory markers. Blood Cultures may be required if body temperature exceeds 38°C.

Alert medical staff as patient will require review and antibiotics may be required. When appropriate resite the peripheral cannula for continuation of treatment. Complete new peripheral cannula insertion documentation.

IV Therapy Education Standard Learner Flowchart

1.1 **Numeracy** session and **IV Therapy Programme** to be booked on the Course Booking System (CBS)

1.2 Learner attends **Numeracy** session and passes assessment and accesses **IV Therapy Education Standard (One off)** on the **Competency Assessment and Recording System (CARS)** on learnPro

STAGE 1

2.1 Learner attends the **in IV Therapy Education programme on Microsoft Teams** *

2.2 Learner accesses and reads all documents and resources, completes elearning in the **IV Therapy Education Standard***

STAGE 2

When complete learning books on the OSCE through the CBS. Once attended and passed the learner will then complete their competencies in clinical practice

3.2 **Competency sheets** require four observations of each IV procedure (e.g. bolus, infusion etc) and sign off by peer

3.3 Learner sends photocopy of signed **Competency Sheets** to Christine Irving or Jan Turnbull, Education Centre, BGH 01896 827650/827642

STAGE 3

* **REMEMBER YOU must** continually update the CARS - by marking each piece of evidence as complete!

Note: Once this IV Therapy Education Standard is completed, staff should complete the IV Therapy Update Standard every 2 years and competences peer assessed annually as part of PDP

IV Therapy Update Standard Learner Flowchart

1.1 Learner must have previously completed Numeracy Assessment

1.2 Learner accesses IV Therapy Update Standard (2 years) in the Competency Assessment and Recording System (CARS) on learnPro

STAGE 1

2.1 Learner completes eLearning in IV Therapy Update Standard if not previously done

2.2 Learner accesses and reads all documents and resources in IV Therapy Update Standard*

STAGE 2

3.1 OSCE sheets only require one observation and sign off by peer if regularly practising IV Therapy

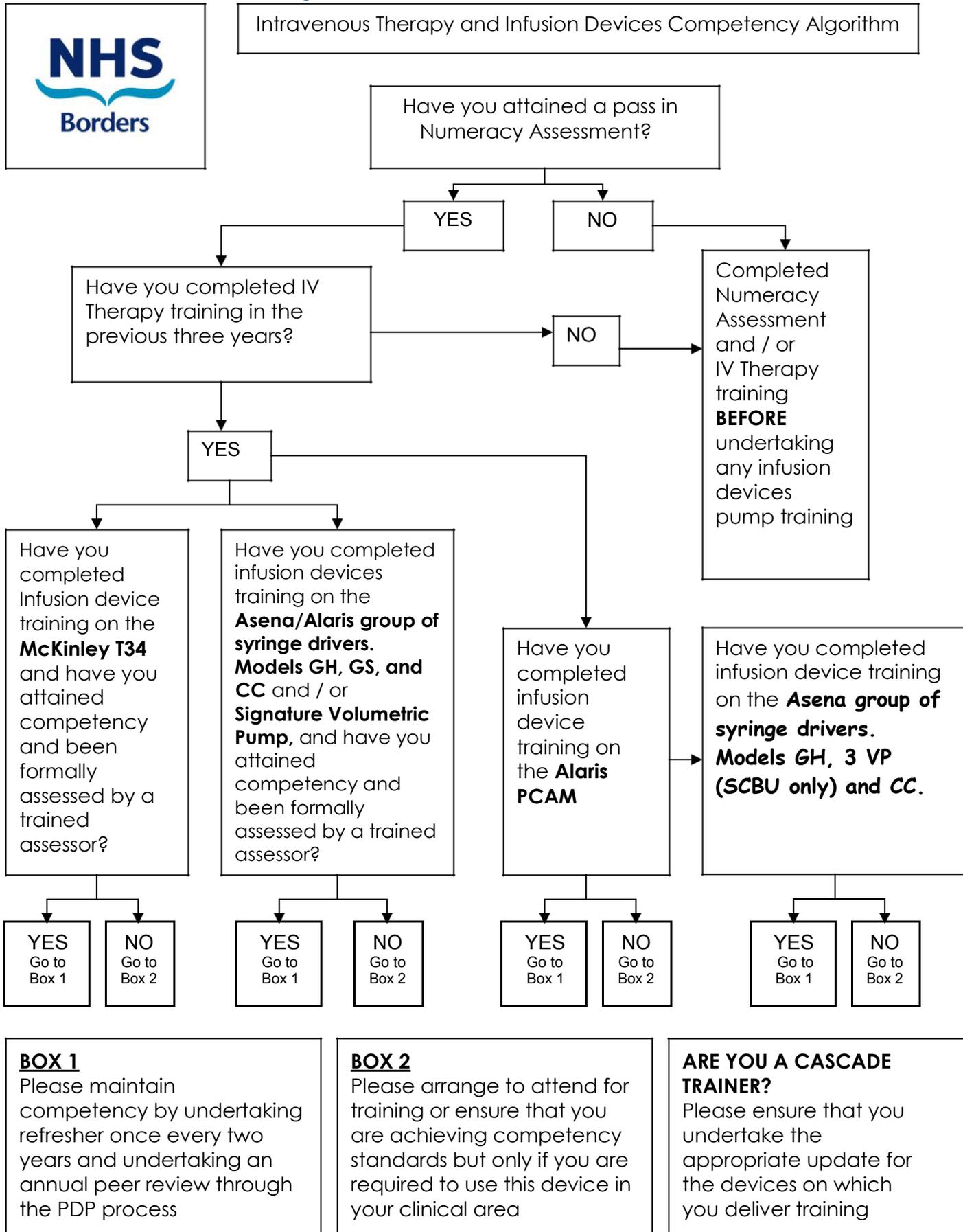
3.2 Learner sends photocopy of completed OSCE Sheets to their reviewer in clinical practice who will sign them off

STAGE 3

***REMEMBER YOU must** Continually update the IV Therapy Update Standards in the CARS by marking each piece of evidence as complete!

Note: This IV Therapy Update Standard is for staff that have previously completed the full IV Therapy Education Standard. This Update must be completed every 2 years and competences peer assessed annually as part of PDP

11.3 Infusion Device Algorithm



12. Monitoring compliance

Element to be monitored	Lead	Frequency	Reporting arrangements
Competency in IV Therapy	Line manager	Every two years	Annual appraisal
Competency in Peripheral Cannulation	Line manager	Every two years	Annual appraisal
Competency in Infusion pump training	Line manager	Every two years	Annual appraisal

13. Transferability of Clinical Skills

This procedure is in place to support staff and promote transferability of their IV clinical skills (see Appendixes 13 & 14).

14. Associated NHS Borders Documents

This policy needs to be read in conjunction with the current organisational policies for:

Infection Control Policies

NHS Borders Code of Practice for the Control of Medicines

NHS Borders Intravenous Flush Policy

NHS Borders Patient Identification Policy

NHS Borders Policy for Consent to Examination or Treatment

NHS Borders Sharps Policy, (National Infection Control Manual 2020)

Safe Delivery of Systemic Anti-Cancer Therapy

NHS Borders Transfusion Policy

Medical Infusion Device policy

Zero Tolerance Hand Hygiene Policy

15. Supporting References:

Adults with Incapacity (Scotland) Act 2000.

(Accessed on 06 June 2016).

Department of Health (DH) (2004) Building a safer NHS, London, DH.

Department of Health (DH) (2007) Saving Lives: Reducing Infection, Delivering clean and safe care, London, DH.

Dougherty L et al (Eds) (2015) Royal Marsden Manual of Clinical Nursing Procedures (9th edition) London, Blackwell Publishing.

Loveday, H., Wilson, J., Pratt, R. et al (2014) *epic 3: national evidence based guidelines for preventing healthcare-associated infections in NHS hospital in England*. Journal of Hospital Infection, 86(suppl 1), S1-S70.

National Patient Safety Agency (2007b) *Alert 20 Promoting the safer use of injectable medicines*, London: NPSA. Agency Ref: NPSA/2007/20.

NMC (2015) Code: Professional standards of practice and behaviour for nurse and midwives, London, NMC.

NMC (2009) Record Keeping, London, NMC.

NMC (2010) Standards for Medicine Management, London, NMC.

Royal College of Nursing (RCN) (2016) Standards for Infusion Therapy, London.

SOP 1	Intravenous Therapy Preparation and Administration in Near Patient Areas
Process 1	Hand hygiene must be performed as per 5 key moments for this procedure and personal protective equipment (PPE) worn.
Process 2	Before starting the procedure, all relevant information leaflets should be read and any specific safety or handling/reconstitution instructions noted. Check the date, time, route and method of administration, ensuring prescription is valid legible and signature of prescriber is present.
Process 3	Before starting the procedure, explain and discuss the procedure with the patient and obtain valid consent.
Process 4	Check the Peripheral Vascular Catheter (PVC) is in date and intact.
Process 5	Check formulation, dose, diluents, infusion fluid and rate of administration correspond to the prescription and product information against the current pharmacy monograph or other information locally in use e.g. Medusa. Reference/checks must be made of previous timed administration of IV therapy to achieve accurate time intervals between medications.
Process 6	Calculate the volume of medicine solution needed to give the prescribed dose. Document the calculation on the Medicine Chart. Obtain an <u>independent</u> second check by another qualified professional.
Process 7	Check that all jewellery is removed except for a plain wedding band.
Process 8	Using the Six Step hand washing technique in the National Infection Prevention and Control Manual, wash hands and pat dry thoroughly with paper towels.
Process 9	Put on good fitting non-sterile gloves.
Process 10	Put on plastic apron and appropriate face covering.
Process 11	Gather equipment. Clean inside of the tray using Hard surface disinfection wipes.

Process 12	Outer wrappers, ampoules and fluid bottles which cannot be prepared in an ANTT method should be cleaned with hard surface disinfection wipes.			
Process 13	<p>Prepare the injection by following the manufacturer's product information or local guidelines, and the relevant guidance in the current pharmacy monographs or other information locally in use e.g. Medusa. Attach the completed label to the final product. On the side of the infusion bag ensuring that the name of the fluid, batch number and expiry are still clearly visible. If labelling a syringe place label on opposite side of markings of the syringe to allow for checking progress.</p> <p>All sharps must be discarded according to NHS Borders Sharps Policy, (National Infection Control Manual 2020).</p>			
Process 14	Remove apron and gloves and using the Six Step hand washing technique in the National Infection Prevention and Control Manual, wash hands and pat dry thoroughly with paper towels.			
Date of Preparation	Aug, 2020	Date of next Review	July, 2023	Authorised by:- IV Governance Group

SOP 2	Intravenous Therapy – Withdrawing solution from an ampoule (a) glass or (b) plastic into a syringe			
Process 1	Hand hygiene must be performed as per 5 key moments for this procedure and PPE worn.			
Process 2	(a) A blunt fill needle with filter should be used for glass ampoules.			
Process 3	(a) Tap the ampoule gently to dislodge any medicine in the neck. Snap open the neck of glass ampoules (There is usually a white dot where the ampoule is weaker). A 2% chlorhexidine in 70% alcohol wipe should be used to clean the neck of the ampoule for a minimum of 15 seconds and allowed to air dry.			
Process 4	(a) Attach a blunt fill needle to a syringe and draw the required volume of solution into the syringe. Tilt the ampoule if necessary. Invert the syringe and tap lightly to expel the air bubbles at the end of the syringe nearest to the blunt filter needle. Draw plunger down slightly to remove medication from the blunt filter needle before expelling the air (Avoids aerosol spray).			
Process 5	(b) The neck of some plastic ampoules is designed to connect directly to a syringe without use of a needle after the top of the ampoule has been twisted off. A 2% chlorhexidine in 70% alcohol wipe should be used to clean the neck of the ampoule for a minimum of 15 seconds and allowed to air dry.			
Process 6	(b) A vial access cannula device or safety needle can be used for plastic ampoules. Attach this to a syringe and withdraw solution.			
Process 7	(b) Remove the vial access device from the syringe and recap with the vial access cannula device cover and dispose in sharps bin. Fit a new safety needle, sterile blind hub or bare cannula device as required. The used ampoule must be discarded according to NHS Borders Sharps Policy, (National Infection Control Manual), once the procedure is completed.			
Process 8	Label the syringe.			
Date of Preparation	Aug, 2020	Date of next Review	July, 2023	Authorised by:- IV Governance Group

SOP 3	Intravenous Therapy - Withdrawing Solution or Suspension from a Glass Vial into a Syringe		
Process 1	Hand hygiene must be performed as per 5 key moments for this procedure and PPE worn Follow steps for SOP 2: (b) , processes 5, 6, & 7		
Process 2	Remove the tamper-evident seal if applicable and thoroughly swab the top of the vial with a 2% chlorhexidine in 70% alcohol wipe. Allow to air dry for at least 60 seconds. If the vial contains a suspension rather than a solution it should be gently swirled to mix the contents, immediately before they are drawn into the syringe.		
Process 3	Attach a vial access cannula device to an appropriate size syringe. Draw into the syringe a volume of air equivalent to the required volume of solution to be drawn up. With the vial upright on a solid surface, insert the vial access cannula device into the vial through the rubber septum. Invert the vial, keep the vial access cannula device in the solution and slowly depress the syringe plunger to push air into the vial, release the plunger so that solution flows back into the syringe.		
Process 4	With the vial still attached and uppermost, tap the syringe lightly to expel the air bubbles. Push the air and any excess medication back into the vial. Ensure that the vial access cannula device with syringe attached remains firmly in the vial during this process to avoid pulling atmospheric air into the syringe. Ensure the syringe is filled with the desired volume of liquid. Then carefully remove the access device from the rubber septum to prevent spray-back. The blue arrow from the vial access cannula will remain in the vial.		
Process 5	The vial access cannula device can be re-sheathed if necessary and must be discarded according to NHS Borders Sharps Policy, (Infection Control Manual 2013 sect 9.1)		
Date of Preparation	Aug, 2020	Date of next Review	July, 2023
Authorised by:- IV Governance Group			

SOP 4	Intravenous Therapy - Reconstitution of Medication in Powder Form and Removal from Vial into a Syringe			
Process 1	Hand hygiene must be performed as per 5 key moments for this procedure.			
Process 2	Draw the required volume of diluent into the syringe (follow SOP 2 or 3 depending on whether withdrawing from an ampoule or vial) When the syringe is filled with the desired volume of diluent, attach a vial access cannula device and ensure all connections are secure.			
Process 3	With the vial upright on a solid surface, insert the vial access cannula device into the vial through the rubber septum and inject the diluent into the vial. Keep the tip of the vial access device above the level of the solution in the vial, release the plunger. The syringe will fill with the air which has been displaced by the solution (if the contents of the vial were packed under a vacuum, solution will be drawn into the vial and no air will be displaced). If a large volume of diluent is to be added, use a push-pull technique adding the liquid in amounts of 5ml to avoid pressure building up with the risk of aerosol spray.			
Process 4	<p>With the vial access cannula device and syringe attached to the vial, swirl the contents of the vial carefully to dissolve the powder (unless otherwise indicated in the product information leaflet or current monograph) With the vial still attached to the syringe, invert and keeping the vial access cannula device in the solution and slowly depress the syringe plunger to push air from the syringe into the vial. Release the plunger so that solution flows back into the syringe. Carefully remove the access device from the rubber septum to prevent spray-back.</p> <p>The blue arrow from the vial access cannula will remain in the vial and should be disposed according to NHS Borders Sharps Policy, (National Infection Control Manual 2020) The remaining vial access cannula device should be recapped, removed and a sterile cap if injection to be used as a bolus or needle for transfer into an infusion bag.</p>			
Date of Preparation	Aug, 2020	Date of next Review	July, 2023	Authorised by:- IV Governance Group

SOP 5	Intravenous Therapy - <i>IV Bolus Administration</i>		
Process 1	Follow steps – for SOP 4		
Process 2	Identify pre and post administration flush requirements and check compatibility of the drug and flush. Prepare 2 x flushes for the cannula with a 10ml luer-lock syringe with at least 5 mls of sodium chloride or appropriate diluent before administering the drug to ensure patency. If the IV line is used to administer the drug the flush should be delivered over one minute especially if the patient is receiving intravenous potassium.		
Process 3	Thoroughly clean the injection port with a 2% chlorhexidene in 70% alcohol wipe for a minimum of 15 seconds and allow to air dry.		
Process 4	Check and Administer flush. Advise the patient to inform the nurse of any burning, stinging or pain around injection site. Stop the administration immediately if the patient reports any of those reactions.		
Process 5	<p>Administer the drug over the correct duration of time as recommended by the Manufacturer – time the injection carefully.</p> <p>The practitioner must note the time at the beginning of the administration and continue to monitor throughout.</p> <p>Observe the patient for any adverse reactions. Monitor the patient's clinical condition during administration. This may be simple observation, or using any monitoring equipment attached. The practitioner should continue to communicate with the patient throughout the procedure.</p>		
Process 6	<p>Check the cannula site for any sign of redness or inflammation and that the solution is infusing into the vein.</p> <p>Re-check and administer the flush. The flush should be delivered the same rate as the drug until the dead space has been cleared.</p> <p>Re-clean the injection port with a 2% chlorhexidene in 70% alcohol wipe for a minimum of 15 seconds and allow to air dry.</p>		
Process 7	Remember to recalculate the infusion rate once the drug has been flushed into the patient.		
Process 8	Dispose of gloves and any other clinical waste into the clinical waste bin, dispose of vials and sharps according to NHS Borders Sharps Policy.		
Date of Preparation	Aug, 2020	Date of next Review	July, 2023
Authorised by:- IV Governance Group			

SOP 6	Intravenous Therapy - Adding Medication to an infusion			
Process 1	Hand hygiene must be performed as per 5 key moments for this procedure and PPE worn			
Process 2	Check the infusion container in a good light. It should be intact and free of cracks, punctures and leaks and should be free from haziness, particles and discoloration.			
Process 3	Swab the rubber septum of the infusion container thoroughly with a 2% chlorhexidine in 70% alcohol wipe for a minimum of 15 seconds and allow to air dry.			
Process 4	If the volume of solution to be added is more than 10% of the initial contents of the infusion container (more than 50ml to 500ml or 100ml to 1 litre infusion), an equivalent volume must first be removed with a syringe and needle.			
Process 5	Follow appropriate steps from SOP 2 or SOP 3 to draw medication into a syringe. Remove vial access cannula/or cap from syringe containing medication and apply safety needle or safety device (if available) to inject the medicine into the infusion container. Ensure the infusion container is resting on a solid surface before injecting through the centre of the injection port, taking care to keep the needle safety device away from the side of the infusion container.			
Process 6	Remove the safety needle or device and syringe from the infusion container. Invert the container at least five times to ensure thorough mixing. Check the appearance of the final infusion for the absence of particles, cloudiness or discoloration. Label the infusion bag immediately and administer to patient.			
Date of Preparation	Aug, 2020	Date of next Review	July, 2023	Authorised by:- IV Governance Group

SOP 7	Intravenous Therapy - Diluting Medication for Use in a Pump or Driver
Process 1	Hand hygiene must be performed as per 5 key moments for this procedure and PPE worn
Process 2	Medicine transfer devices are not compatible for use with insulin syringes. Prepare the medicine in a syringe using the appropriate standard operating procedure.
Process 3	Draw the required volume of diluent from an appropriate infusion bag into the administration syringe that is to be used in pump or driver.
Process 4	Hold administration syringe upright and attach medicine transfer device. Attach medication syringe to open end of transfer device to connect both syringes. The red medicine transfer devices are compatible with both Luer lock and Leur slip syringes.
Process 5	Depress plunger on medication syringe to transfer contents into administration syringe. Detach empty medication syringe leaving transfer device in place. Pull plunger of administration syringe down slightly to remove any medication from transfer device.
Process 6	Remove transfer device and fit a sterile blind hub to the administration syringe, invert several times to mix the contents. Tap the syringe lightly to aggregate the air bubbles remove the blind hub to expel the air and then refit.
Process 7	All injections must be appropriately labelled immediately after preparation, by the registered practitioner who prepared it (with the exception of syringes for Intravenous flush administration) Labels used on injectable medicines prepared in clinical areas should contain the following information: <ul style="list-style-type: none"> Name and CHI Number of Patient Name of the medicine; Strength; Route of administration; Diluent and final volume; Signature of qualified registered practitioner(s) preparing and checking medicine Date and time of preparation
Process 8	Carefully check the syringe for cracks and leaks and then label it, especially noting the requirements specific to syringe drivers.

Process 9	Check the total volume of injection solution in the syringe is as specified in the prescription and that the infusion can be delivered at the prescribed rate by the administration device chosen.			
Process 10	The rate of administration is set correctly on the administration device and according to the manufacturer's instructions.			
Date of Preparation	Aug, 2020	Date of next Review	July, 2023	Authorised by:- IV Governance Group

SOP 8	Insertion of Peripheral Vascular Catheters
Process 1	Hand hygiene must be performed as per 5 key moments for this procedure
Process 2	Before starting the procedure, all relevant information leaflets should be read and any specific safety or handling instructions noted.
Process 3	All equipment necessary for the procedure must be assembled ensuring all packaging is inspected for any damage and expiry dates should be checked prior to use. Check that the PVC is clinically indicated, explain and discuss the procedure with the patient and obtain valid consent.
Process 4	Prepare a clean dry surface, trolley or re-usable plastic tray. Where this is not possible, the environment must be clean and free from extraneous items. Consideration should be given to infection risks that may be prevalent in the area prior to proceeding. Clean the work surface with warm water, general purpose detergent or detergent wipes, and dry with paper towels. Clean the trolley or surface of the plastic tray with hard surface disinfection wipes (National Infection Control Manual). Personal protective equipment must be applied in line with NHS Borders Standard Infection Control Precautions including disposable gloves, plastic apron and appropriate face covering.
Process 5	Open Cannula package slightly and tegaderm cover for easy access. Prime the SmartSite by attaching a 10ml luer lock syringe of normal saline 0.9%, flicking the SmartSite to exclude all evidence of air and leave attached on trolley or tray.
Process 6	Ensure patient is sitting comfortably in a well lit room. Apply tourniquet to the chosen limb approx 10cm above the insertion site. The tourniquet should be tight enough to impede venous return without restricting arterial flow and it should not be left on for longer than 1 minute Tourniquets used for cannulation should be single-patient-use.
Process 7	Clean the insertion site with a 2% chlorhexidine in 70% alcohol wipe across an area of 2-3 inches in diameter. Clean from left to right then up and down in a grid motion for a minimum of 15 seconds, allow the site to air dry. DO NOT repalpate the vein or touch the skin after cleansing and prior to cannula insertion.
Process 8	Remove the needle guard and inspect the PVC for integrity. (Any faults detected should be reported in accordance with NHS Borders Incident Reporting Procedure and the device withdrawn from use).
Process 9	To facilitate a smooth entry, anchor the vein by applying traction on the skin a few centimeters below the point of insertion with non-dominant hand. Hold the PVC in appropriate grip, ensuring the bevel is facing upward. Place the device over the vessel and select an angle according to the depth of the vein.

Process 10	<p>Insert the PVC through the skin. Indication that the needle (stylet) has entered the vein should be confirmed by a flashback of blood into the 'flashback chamber'. Decrease the angle between the PVC and the skin. Advance the PVC slightly to ensure entry into the lumen of the vein. At this point, to confirm that the PVC is still positioned in a patent vein, the stylet should be withdrawn slightly.</p> <p>A second flashback of blood will be seen along the shaft of the PVC.</p> <p>Maintain skin traction with non-dominant hand Slowly advance the cannula off the stylet with dominant hand Release tourniquet. Withdraw the needle. Digital pressure should be applied to the vein above the tip of the cannula, with the practitioner's non-dominant hand. Secure the PVC with a digit also of the non-dominant hand and remove the stylet with the dominant hand. Dispose of the stylet immediately into a sharps container. All sharps must be discarded according to NHS Borders Sharps Policy, (National Infection Control Manual 2020).</p>			
Process 11	<p>Apply the primed needle safety device and gently flush the cannula using a pulsating push-pause, positive pressure method. Flushing should not be attempted if:</p> <ol style="list-style-type: none"> 1. The patient reports pain or discomfort. 2. Signs of catheter dislodgement, swelling, fluid leak. 3. Signs of local infection – redness, increased temperature at site, exudate or pus around the PVC insertion or swelling. 			
Process 12	<p>Remove syringe and secure cannula with the strip tapes on the tegaderm dressing, document date of insertion and apply dressing so that the cannula is visible. Re-clean safe needle free device with a 2% chlorhexidine in 70% alcohol wipe. A new pair of non-sterile gloves must be worn when manipulating any PVC or associated device after insertion and an aseptic non touch technique should be adopted in accordance with standard NHS Borders infection control procedures.</p>			
Date of Preparation	Aug, 2020	Date of next Review	July 2023	Authorised by:- IV Governance Group

IV PREPARATION EQUIPMENT GUIDE

VIAL ACCESS CANNULA

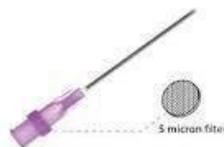


Needle free device used for:

- Accessing a vial to reconstitute contents.
- Removal of solution from a vial into a syringe.

The vial access cannula device can be re-sheathed if necessary in order to remove it from the syringe, it must be discarded according to NHS Borders Sharps Policy, (Infection Control Manual 2013 sect 9.1)

BLUNT FILL NEEDLE



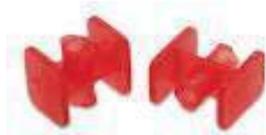
Blunt needle includes a 5 micron filter, used for:

Removal of solution from a glass amp ONLY

Must be discarded according to NHS Borders Sharps Policy, (National Infection Control Manual 2020 section 1.9)

IV PREPARATION EQUIPMENT GUIDE

SYRINGE CONNECTOR/MEDICATION TRANSFER DEVICE



Used for:

Connecting 2 syringes in order to transfer solution from one to the other e.g. when diluting medication for use in a pump or driver.

Can be used with both luer lock and luer slip syringes.

Definitions:

Aseptic Technique- refers to a standardised practice that requires a non touch approach to key parts and key sites to prevent contamination and reduce the risk of infection.

Bolus – administration of medicine in a small volume, drawn up in a syringe, given directly into a venous access device such as Central Venous Catheter, Peripherally Inserted Central Catheter (PICC), midline catheter or peripheral cannula

Chlorhexidine 2% and 70% Alcohol – this is a solution that is available as a wipe. Apply for 30 seconds and allow to fully air dry rendering the skin or equipment aseptic. Products must be used as per manufacturer's license. It can be applied in a grid motion with back and forward strokes.

Competency – demonstration of underpinning knowledge and skills to perform a procedure safely.

Consent – supplying the patient with relevant information to enable them to make an informed choice.

Continuous Infusion – a large volume of infusion fluid (with or without the addition of a medicine) that is infused over a prescribed time and at a prescribed rate, often over 12 - 24 hours.

Diluent – a prescribed substance that dilutes the strength of a mixture or solution.

Extravasation – leakage of a vesicant medicine from the vein into surrounding tissue, causing tissue necrosis which requires urgent medical attention.

Fibrin Sheath – refers to a protein that works with platelets to clot blood and form a covering to the catheter that may provide a focus for bacterial growth and cause occlusion. It can act as a one way valve allowing fluids to be administered but causing difficulty with aspiration and withdrawal of blood.

Flush – a prescribed solution used to maintain patency of venous access devices.

Incompatibility – a harmful reaction that occurs between the drug and the solution, container or another drug.

Induration – sclerosis or hardening - an abnormally hard area to the skin and tissue.

Infection - the entry of a harmful microbe into the body and it's multiplication in the tissues.

Infiltration – leakage of a non vesicant medicine into the tissue that surrounds the vein.

Intermittent Infusion –a small volume infusion administered at a prescribed rate, usually at specific time intervals during the day.

Key sites - An area belonging to the service user where pathogenic organisms can enter the body and cause infection e.g. wounds, urinary tract, cannula insertion site.

Key Parts - Refers to the key sterile equipment parts. These key parts are the pieces of equipment that are manufactured sterile and would be in direct contact of the service user.

Peripheral Cannula - a hollow needle passed through the skin directly into the vein as a mechanism of gaining short term intravenous access to allow injection or infusion of liquids. Sizes range from Yellow 24g, Blue 22g, Pink 20g, Green 18g, Grey 16g, Brown 14g. Size 24-20g is optimal for the administration of intermittent medications. All medications should be administered using the smallest gauge appropriate to the patient following risk analysis.

Phlebitis – inflammation of a vein.

Reconstitution - the addition of a liquid or powder medicine to a specified diluent, as per the prescription and manufacturers guidelines.

Speed Shock – a sudden adverse physiological reaction to IV medications that are administered too quickly. Some signs of speed shock are: flushed face, headache, tight feeling in chest, irregular pulse, loss of consciousness and cardiac arrest.

Thrombophlebitis – venous inflammation in combination with venous thrombosis, which may lead to vessel occlusion. Dislodgement of a thrombus could cause a pulmonary embolus.

Thrombosis – formation, development or existence of a blood clot within the vascular system.

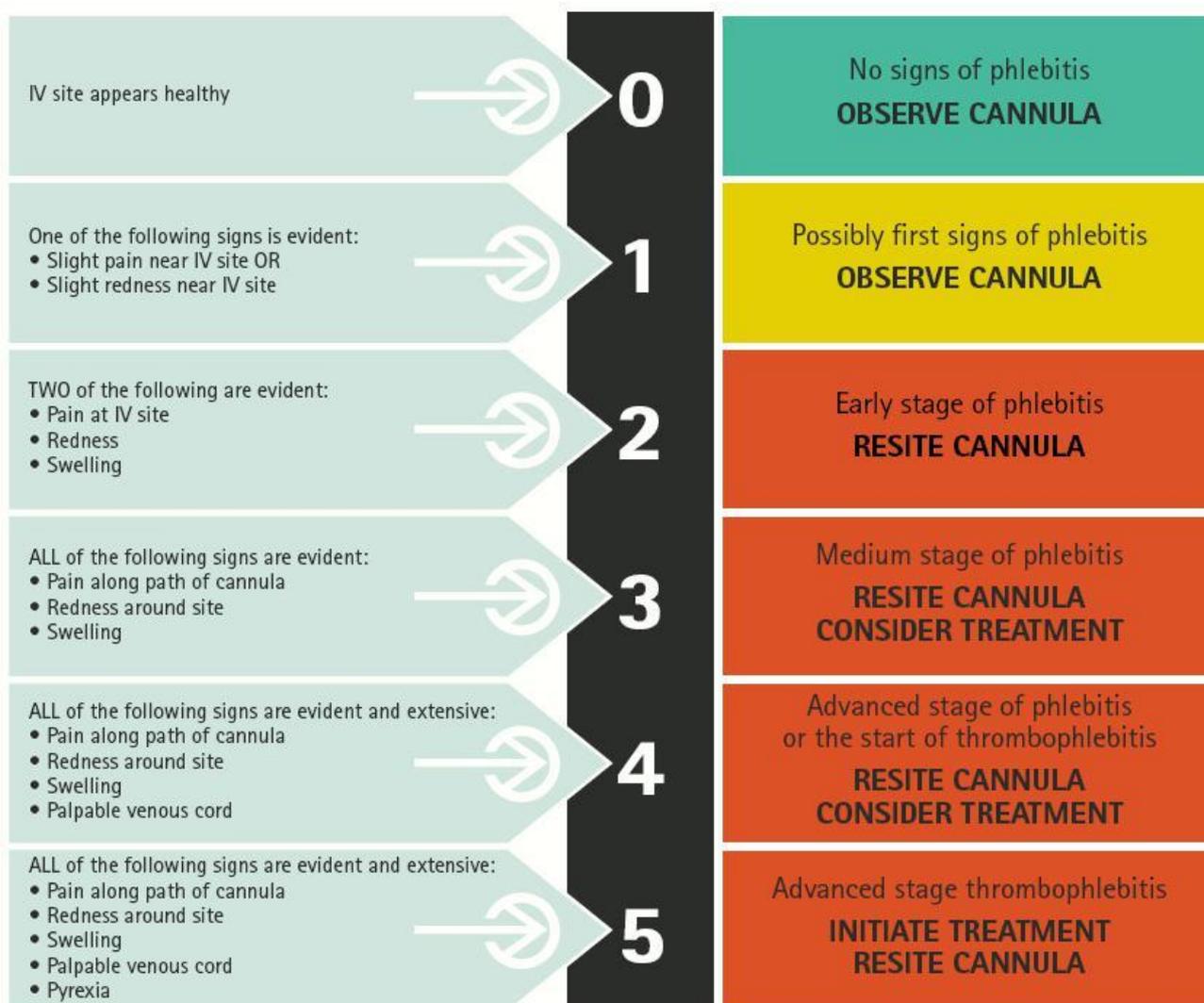
Venous Access Device - a device used to access a vein for the purposes of administering medication, this may be a Peripheral Cannula, Midline Peripheral Catheter, or Central Venous Catheter.

Venous Cannulation – the procedure of insertion of a Peripheral Cannula into the venous system.

Vesicant - a caustic medication that causes tissue blistering and necrosis. (Refer to Appendix 11 for examples)

Visual Infusion Phlebitis Score (VIPS) – An observation tool used for monitoring the condition of the IV access site

Example of a Visual Infusion Phlebitis Score- perform and document at least once daily



With permission from Andrew Jackson – Consultant Nurse,
Intravenous Therapy & Care, The Rotherham NHS Foundation Trust
(Adapted from Jackson, 1998)

With permission from Andrew Jackson - Consultant Nurse,
Intravenous Therapy Et Care, The Rotherham NHS Foundation Trust
(Adapted from Jackson, 1998)

Transferability of Skills Form – Assessment of Training Requirements

Practitioner Name: (Print Name)		Please Circle: RGN / Midwife
Clinical Area / Hospital site:		
Date / provider of previous training details:		
Content of previous training: Theory Practical sessions Competencies		
Evidence of supporting information provided: (e.g. certificate and competency sign off)		
Based on evidence and discussion of further learning needs, agreed action plan will be:	<p>1. Tick agreed action from the list below:</p> <p>a) Accept supporting evidence, direct individual to NHS Borders policies and e-Learning and supervise practice to assess competence in each IV therapy skill once only. <input type="checkbox"/></p> <p>b) Accept majority of supporting evidence, however requires: - to review NHS Borders educational pack, policies/procedures <input type="checkbox"/> - to attend practical session, <input type="checkbox"/> - further supervised practice, <input type="checkbox"/></p> <p>c) Complete full NHS Borders approved clinical skills programme. <input type="checkbox"/></p> <p>2. Agreed timescale for completion:</p>	
Further Comments:		

On completion of agreed actions, please complete and retain original copy in staff file.

Senior Nurse/Midwife/Manager (Print name) _____

Signature _____

Practitioner Signature _____

Date _____

In addition nursing staff Acute Services Division only photocopy this form and send to: Christine Irving or Jan Turnbull, Training and Professional Development, Education centre, BGH. TD6 9BS

1. Identified clinical skill is appropriate to enhance patient care in the area/ ward/ department and adheres to the terms and conditions of staff job descriptors, as well as any Professional Codes of Conduct.

A newly employed member of staff has attained the appropriate IV therapy clinical skills training and competence with a previous employer within 3 years of transfer

2. Evidence of member of staff's prior training is assessed and recorded at local level.

Consider previous experience of learning, outcomes and the length of time since training undertaken in previous employment, including updates as appropriate (supporting information should confirm this)

Training and Professional Development will support as required

3. Learning needs and outcomes will be identified that meet the needs of the service and individual.

Member of staff and Senior Nurse/ Midwife/ Manager/ delegated individual to agree action plan and address any highlighted educational needs within agreed timescale
Appropriate NHS Borders approved clinical skills training pack is given to the Individual to review with clear assessment criteria identified to attain competencies if necessary

4. Learning outcomes relevant to all IV therapy clinical skill procedures for the Individual

Be able to explain the terms vicarious and individual liability
Be familiar with NHS Borders policies/ procedures/ guidelines

Comply and follow the associated policies/ procedures/ safe systems of work

Demonstrate understanding of theory and competence in IV therapy clinical skills
Ensure successful completion of action plan with assessor/ supervisor, and then inform the Senior Nurse/ Midwife/ Manager

Be responsible for updating their knowledge base of the clinical skill(s) and **Five Moments** maintaining of their **Hand** own **Hygiene** personal development

5. Appropriate assessment and monitoring mechanisms are in place.

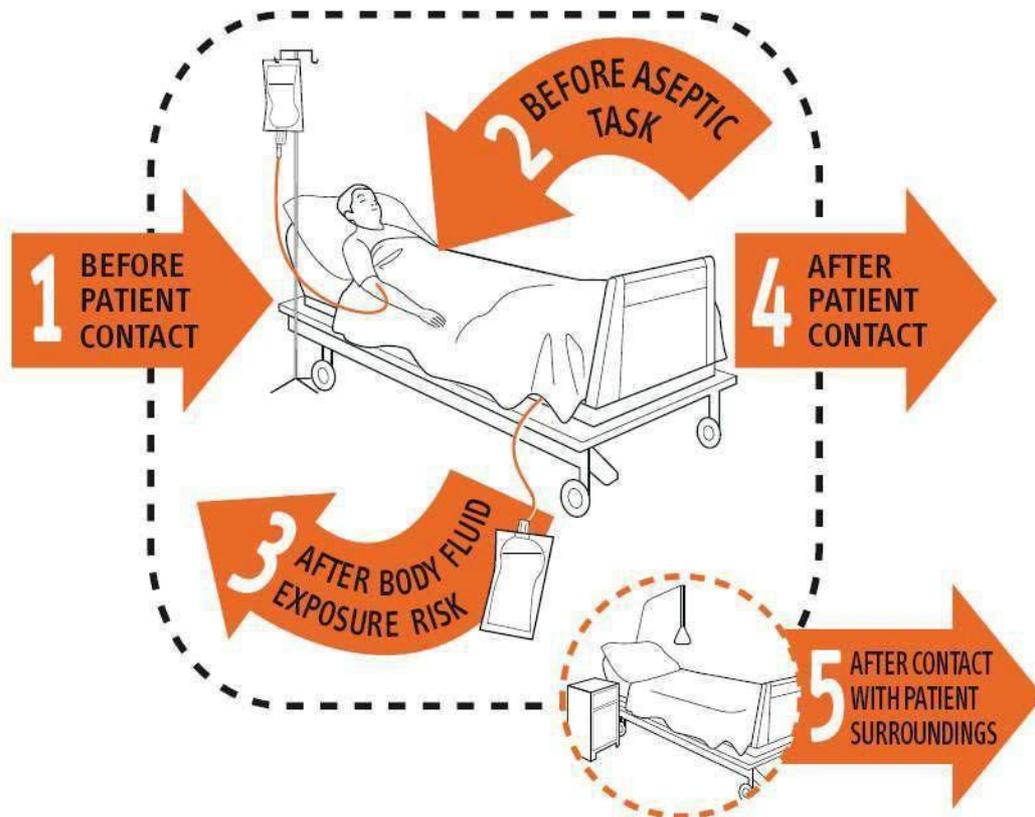
Reassessment of IV therapy skills is every 2 years with the ability/ opportunity to maintain competence in the clinical area

Five Moments Practice will of **Hand** be reviewed **Hygiene** on a regular basis and monitored annually as part of the continued personal development process

6. Concerns regarding member of staff's competency are addressed.

If the Senior Nurse/ Midwife/ Manager deems it appropriate for the member of staff to discontinue carrying out a clinical skill the reasons why must be recorded in their Personnel file

Five Moments of Hand Hygiene





Pre-registration Nursing and Midwifery: Partner Approved Education Institution (AEI) Clinical Skills Curricula



Edinburgh Napier University		Edinburgh Napier University		Edinburgh Napier University	
Year One/Part One		Year Two/Part Two		Year Three/Part Three	
PLE 1 (Sep to April)		PLE 3 (Sep to Dec)		PLE 5 - Tri 1 (Sep-Dec)	
<ul style="list-style-type: none"> PMVA, CPR-Basic Manual Handling Infection Prevention & Control BP Monitoring TPR & Urinalysis NEWS2 & PEWS Personal Care & Care Rounding Oral Medications IM/SC Medications & Injection Technique 	<ul style="list-style-type: none"> Risk Assessments End of Life Care Pain Assessment Professionalism BGM Sexual Health & Wellbeing Respiratory Assess 1 First Aid Safe Medicate Part 1 - Target pass rate 80% 	<ul style="list-style-type: none"> CPR & AED Catheterisation - Midwives Part 1 Intravenous Fluid Therapy Controlled Drug Administration - Midwives Part 1 Blood Transfusion - Midwives Part 1 Yellow Card Scheme Trak Training ABCDE & Priorities of Care 	Midwifery only <ul style="list-style-type: none"> Obstetric emergencies Diabetes Eclampsia Pre eclampsia BFI assessment (in Practice) 	<ul style="list-style-type: none"> CPR Simulation Anaphylaxis Blood and ABG Analysis ABCDE Complex Issues Ward Management Complex Medicine Management Assessment Tools Safe Medicate Part 3 Summative must 100% pass rate ECG Part 2 12 Lead Interpretation 	
PLE 2 (May to Aug)		PLE 4 (Jan-April)		PLE 5 - Tri 2 (Jan-May)	
<ul style="list-style-type: none"> Child & Adult Protection Dementia Framework ABCDE Systematic Assessment NG Tube & PEG Pain Management Safe Medicate 1 Consolidation Year 1 	<ul style="list-style-type: none"> Respiratory Assessment 2 - Chest Auscultation & Suctioning Tracheostomy & Laryngectomy Asepsis & Wound ANTT Sensory overload - Autism, Dementia Virtual Reality Session Pre- and Post-Procedure/Op Care Stoma & Bowel Care ECG Part 1 12 Lead 	<ul style="list-style-type: none"> Nutritional Assessment and Fine Bore NG Confusion & Delirium Neurological Assessment Seizure Management First Aid Mental Health Suicide Awareness SEPSIS & Management Safe Medicate Part 2 90% pass rate Antimicrobial Medications 	<ul style="list-style-type: none"> PMVA Intravenous Medications including exam Infusion Devices Venepuncture & Cannulation Manual Handling 	BN/BM/MM Year 1 = Part 1 Year 2 = Part 2 Year 3 = Part 3 MN Part 1 = (PLE 1, 2, 3) Part 2 = (PLE 4, 5, 6)	

N.B Midwifery and Child Health skills may vary from table above please check with Local Academic Assessor for clear guidance.

University of Edinburgh - BN Programme				
	Part One/Year One	Part Two/Year Two	Part Three/Year Three	Part Three/Year Four
Semester 1	<ul style="list-style-type: none"> Handwashing & Infection control Communication Vital Signs Bed Making & clinical ward orientation Maternity CPR Stroke/mobility Anatomy lab *IPL (Vital signs, BLS & handwashing) Patient Care (1) 	<ul style="list-style-type: none"> Administering sub-cutaneous and IM injection MHS: SafeTalk Catheterisation ANTT MHS: de-escalation & management of aggression MHS: MI & brief solution approaches Mental health decider skills & Cognitive Behavioural Techniques *IPL - Communication CPR and Resuscitation Nasogastric intubation 	<ul style="list-style-type: none"> *IPL- tactical decision making games CPR and Resuscitation Placement Preparation 	<ul style="list-style-type: none"> Advanced communication skills- LD CPR and Resuscitation Venepuncture Cannulation *Hospital at Night IPL Drug calculations Placement Preparation
Semester 2	<ul style="list-style-type: none"> Vital Signs Revision Patient care (2) First Aid IV fluids & Fluid balance Anatomy lab Neurological observations Managing pain *IPL- Wellbeing Drug calculations- Competency Placement Preparation 	<ul style="list-style-type: none"> Neurological Observations ECG Breaking Bad News Sepsis Management Blood Transfusions Anatomy Lab *IPL PAL student Placement Preparation 	<ul style="list-style-type: none"> Advanced communication skills- Dementia Placement Preparation Acute Care Simulation 	<ul style="list-style-type: none"> *PAL –educator IPL Leadership workshop Teaching, supervising & assessing students 1 & 2 *Ward Round IPL
The asterisked * IPL sessions occur throughout the semester with the medical students and have NS staff inputs. All other sessions NS staff.				

N.B IV Therapies will commence in Part 3 Year 3 for UoE BN programme



University of Edinburgh– MN Programme

YEAR ONE		YEAR TWO	
Semester 1 (Part One)		Semester 1 (Part Three)	
<ul style="list-style-type: none"> • Handwashing and infection control, communication • Vital Signs, Pain Scoring and GCS • Patient care • IPL (Vital signs, BLS and handwashing) • Tissue viability • Maternity 	<ul style="list-style-type: none"> • ECG • Stroke/mobility • Fluid balance • Catheterisation • Drug dispensing and calculations • Mental health skills: SafeTalk 	<ul style="list-style-type: none"> • IPL- tactical decision making games • Venepuncture • Cannulation • Acute Care Simulation • IV therapies • Sepsis Management • Blood Transfusion 	<ul style="list-style-type: none"> • Anatomy Lab • CPR and Resuscitation • Nasogastric intubation • Mental health skills: MI and brief solution approaches
Semester 2 (Part Two)		Semester 2 (Part Three)	
<ul style="list-style-type: none"> • PAL - recipient • Breaking bad news • Administering sub-cutaneous and IM injections • ANTT • Anatomy lab • CPR • Managing pain 	<ul style="list-style-type: none"> • IPL - Well being • IPL - Communication • Mental health skills: de-escalation and management of aggression • First Aid 	<ul style="list-style-type: none"> • PAL – Educator IPL • Neurological Observations • Hospital at Night IPL • Teaching, supervising & assessing students 1 • Advanced communication skills - LD • Advanced communication skills - Dementia 	<ul style="list-style-type: none"> • Leadership workshop • Drug calculations – Competency • Ward Round IPL • Mental health decider skills and cognitive behavioural techniques

Year One/Part One		Year Two/Part Two	
<ul style="list-style-type: none"> Vital Signs Recording (Manual and Digital) including AVPU Waterlow scoring/Observing skin integrity Handwashing Basic Infection control Personal Hygiene – bed bath, oral hygiene ANTT Medicine Administration (Oral/Injections incl. S/C & IM) Urinalysis Basic Communication skills NEWS Chart documentation Basic Numeracy Basic First Aid BLS Manual Handling 	<ul style="list-style-type: none"> Prevention & Management of Violence & Aggression (Low level Breakaway) Bowel Assessment (Frequency, Bristol Stool Chart and Rectal Examination) (Excoriation management charts) Supporting patients to eat & drink including fluid balance management. Introduction to basic pharmacology (including use of BNF) Nutritional Assessment (Intro BMI/MUST scoring) Peak Flow Assessment theory only 	<ul style="list-style-type: none"> Bowel Assessment continued including the administration of suppositories and Enemas CPR Hospital Resuscitation (AEDs, algorithm's) Stoma Management Insertion of NG tubes Administration of Controlled Drugs Intro to Pain Assessment & Management (PCA's & Epidurals) Theory Blood Transfusion from BTS team Administration of IV fluid via gravity infusions ANTT recap Intro to Pre & Post op Care Blood Glucose Monitoring including training and barcode for Roche Monitor Administration of Insulin (syringe & pens) 	<ul style="list-style-type: none"> Urinary Catheterisation (male & female) Theory of Suprapubic catheters Complex Communication – Breaking Bad News Intro to wound assessment/management/documentation with TVN. Including clips & suture removal. Theory of wound drains. Ongoing development of pharmacology (including use of BNF) Ongoing development of numeracy skills (including gravity/pump infusion calcs, volume into a syringe) Administration of oxygen via nasal cannula, venture mask and Hudson mask. Including administration of nebulisers Manual handling update
Year Three/Part Three		Year Four/Part Three	
<ul style="list-style-type: none"> ABCDE Assessment Airway Management ECG recording & basic Interpretation Intro to cardiac monitoring (incl. Aline/CVP) Basic ABG Interpretation Advanced Life Support including asynchronous breaths/compressions. Intro to primary/secondary assessment Seizure Management Chest drains – Theory ONLY 	<ul style="list-style-type: none"> Neuro Assessment including GCS and Pupillary assessment Venepuncture & Cannulation from Feb 2022 Respiratory assessment including Auscultation Advanced Wound assessment TVN Manual handling update Prevention & Management of Violence & Aggression (Low level Breakaway) update 	<ul style="list-style-type: none"> Venepuncture & Cannulation (2021 only) IV additive administration from Feb 2022 Abdominal Assessment Basic Heart sound assessment Manual handling update 	<ul style="list-style-type: none"> Advanced Life Support including asynchronous breaths/compressions Mental Health Assessment

Open University BSc Hons Adult/CYP/LD/MH			
Part One (16 months- 3PLEs)		Part Two (16 months- 3PLEs)	
<ul style="list-style-type: none"> Vital Signs Recording Neurological observations Handwashing (SIPCEP Foundation level) Infection prevention and management Personal Care Hygiene, skin integrity and wound care Aseptic technique Communication skills Person centred/Family centred care Assessment skills and care planning EWS and Chart documentation Sepsis Numeracy Acute and emergency care (BLS - mandatory training) 	<ul style="list-style-type: none"> Manual Handling (mandatory training) Prevention & Management of Violence & Aggression (Mandatory training) Bowel and Bladder Health (urinalysis, catheterisation) Mobility Nutrition and Hydration including assessment and fluid balance management. Medicines management Numeracy Blood Glucose Monitoring Developing professionalism Emergency management of seizures 	<ul style="list-style-type: none"> Safeguarding across life course Medicine optimisation and concordance Intro to pharmacology Numeracy (numeracy assessment) Administer medication vascular access devices and enteral equipment IV fluid administration and intro to IV drug administration Enteral feeding Numeracy Pain Assessment & Management Blood Transfusion (TURAS module) Patient safety Communication skills 	<ul style="list-style-type: none"> Mandatory training updates as necessary (Manual handling, BLS, PMVA) Epilepsy and management of seizures Respiratory assessment Pre and post op care Dementia Developing as a leader
Part Three (16 months- 3PLEs)		Notes	
<ul style="list-style-type: none"> Management of deteriorating patient Physical assessment ABCDE Assessment Venepuncture & Cannulation Medicine management including IV drug administration Pharmacology Central venous access devices Blood Transfusion (theory and TURAS module) ECG 	<ul style="list-style-type: none"> Numeracy (numeracy assessment 100%) Communication skills Safeguarding across lifecourse with emphasis on roles and responsibilities as registrant Mandatory training updates as necessary (Manual handling, BLS, PMVA) Mental Health assessment including prevention of suicide Leadership and management 	<p>OU students are employed in HCSW roles and as part of their employment complete mandatory training as outlined in National PAD. This is completed pre-programme and verified by employer at each Part of the programme.</p> <p>The OU uses clinicalskills.net and in Part 2 students undertake an Open learn free course - Everyday Maths</p>	<p>OU students may have completed NHS board training and development in venepuncture and cannulation and may be able to continue practising these skills in the nursing programme as per local policy</p>