

## Brighton and Sussex University Hospitals

### Policy for Intravenous Therapy Administration to Infants on the Neonatal Unit

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## **1 Introduction**

- 1.1** Intravenous (IV) therapy is a vital aspect of neonatal care. Administration of IV therapy by nurses on the Neonatal Unit must be undertaken within the NMC Code (2018) and take account of the 'Professional guidance on the administration of medicines in healthcare settings' (Royal Pharmaceutical Society and Royal College of Nursing 2019).

## **2 Purpose**

- 2.1** The purpose of this document is to standardise intravenous therapy by Neonatal Unit nursing staff to promote safe clinical practice.
- 2.2** This policy applies to the administration of intravenous therapy by registered nurses who work on the Neonatal Unit. This will include the administration of IV (antibiotics) to infants who are with their mothers on the Transitional Care facility of the Postnatal Ward and those who on the Neonatal Unit.

## **3 Definitions**

- 3.1** A *neonate* is defined as a newborn infant who is less than four weeks old and an *infant* is defined as a baby/child between 0-1 years of age.
- 3.2** The Neonatal Units within Brighton & Sussex University Hospitals (BSUH) NHS Trust include the Special Care Baby Unit at Princess Royal Hospital (PRH) and the Trevor Mann Baby Unit (Neonatal Intensive Care Unit) at Royal Sussex County Hospital (RSCH). The term neonate/infant is used interchangeably, within this policy to encompass any baby that is nursed on the Neonatal Unit.

## **4 Responsibilities, Accountabilities and Duties**

### **4.1 Responsibility of the Trust**

The Trust is responsible for the provision of IV and infusion devices training for neonatal nurses. The Trust is responsible for the dissemination of any known internal and external safety alerts which relate to intravenous therapy or infusion devices e.g. Medicines & Healthcare Products Regulatory Agency (MHRA) alerts.

### **4.2 Responsibility of the Neonatal Unit Manager**

Each unit manager is responsible for ensuring maintenance of a register of nursing staff that are competent in the administration of intravenous therapy and this should be available for audit purposes.

Each unit manager is responsible for ensuring that neonatal nurses are allocated time to attend the necessary training to administer intravenous therapy.

#### **4.3 Responsibility of the neonatal nurses**

All neonatal nursing staff are responsible for ensuring they are competent to undertake neonatal intravenous therapy by attending the relevant BSUH training and completing the competency document in appendix 1 every three years.

All neonatal nursing staff are responsible for ensuring they are competent to use infusion devices and should attend relevant medical infusion devices training.

Nursing staff are responsible for removing any infusion devices found to be faulty or unfit for service from the clinical area and notifying the Unit technician/Electro-medical Department (EME) of the fault or problem.

#### **4.4 Responsibility of the Neonatal Unit Technician and Trust EME department**

The Neonatal Unit technician and Trust EME department are responsible for ensuring that all intravenous infusion devices are serviced annually and maintained appropriately. Default settings will be checked and agreed with senior neonatal staff e.g. Band 7, Matron or Medical Consultant to ensure safe parameters for neonatal therapy.

### **5 Policy**

#### **5.1 IV therapy may be used in the following circumstances:**

- For the administration of emergency/lifesaving medication;
- For the administration of medication which cannot be tolerated orally;
- When fluid and electrolyte balance cannot be maintained by enteral feeds and supplements;
- For the administration of blood and blood products;
- For the administration of parenteral nutrition;
- For the administration of medication only available in an injectable form.

#### **5.2 Many drugs used in neonates are off-label. As a result, the drug must be contained within the Unit formulary (agreed by Neonatal Consultants and the Unit Pharmacist) or other recognised Neonatal/Paediatric Formulary. If this is not the case, the details of the drug and rationale for use must be clearly documented in the medical notes by a Consultant/Registrar.**

#### **5.3 IV therapy should not be used in the following circumstances:**

- When alternative routes of administration (e.g. oral) would be as effective;
- Where the patency of the IV access device is in doubt;
- In any situation where the practitioner involved feels the administration of IV medication is inappropriate or unnecessary.

Non-administration must be reported to medical staff and documented in the medical notes and on the prescription chart;

- 5.4** All drugs for neonatal IV administration will be checked by two practitioners;
- 5.5** The first checker and the administrator of IV therapy must be a registered practitioner who is certified competent in IV therapy OR who has received training in IV therapy and is currently undergoing a period of supervised practice to complete the competency based assessment for IV therapy in appendix 1;
- 5.6** The second practitioner must be either a competent IV practitioner or a registered practitioner who is familiar with the process and policies relating to IV therapy and is aware of their personal accountability in checking the IV medication;
- 5.7** Student nurses/midwives cannot act as a second checker or administer IV therapy but may be involved in the process and act as a third checker;
- 5.8** Prior to the administration of IV therapy, practitioners must be familiar with the infant's plan of care;
- 5.9** The practitioner must be sure that when administering drugs for clinical trials that consent to the trial is documented and a protocol of the trial is readily available;
- 5.10** The practitioner retains the right to pass the responsibility for the administration of an intravenous drug to another health professional, if they feel that this is beyond their level of competence (NMC Code 2018). In this instance, medical staff should be informed to ensure that the infant receives the prescribed medication. This should be documented;
- 5.11** Intravenous therapy should only be administered according to an accurate, clearly written, typed or computer generated, indelible prescription. Prior to administration, the practitioner is responsible for checking the following details on the prescription/patient record:
  - The infant's name, Trust/NHS number, current weight, date of birth, allergies;
  - The correct fluid/drug;
  - The correct dose/units and frequency;
  - The correct start and completion (if applicable) date and time;
  - Any additional instructions;
  - Signature and designation of prescriber;
  - Date and time of previous dose;
  - Appropriate drug blood levels and biochemistry results.
- 5.12** In the case of a neonatal resuscitation, it may be necessary to administer emergency drugs such as Adrenaline, Sodium Bicarbonate, Glucose and volume without a written prescription, if medical staff are actively involved

in the resuscitation. In this instance, a verbal instruction from the attending doctor must be heard by two registered practitioners and the medication prepared according to this instruction. Any such drugs must be prescribed and signed following the resuscitation.

### **5.13 Equipment**

- 5.13.1** Blue tray - cleaned with Trust approved agent e.g. Clinell wipes;
- 5.13.2** Dressing pack (when accessing central lines);
- 5.13.3** Needles - a filter needle should be used when drawing up solution from a glass ampoule. Since filter needles can only be used one way, the filter needle should be replaced with an ordinary needle when adding the drug to another solution. In this instance, extra care must be taken to minimise infection risk and to avoid sharps injury. A filter needle or blue needle may be used to draw up large volumes of intravenous fluids;
- 5.13.4** Diluents, if required
- 5.13.5** Syringes - 5-10ml syringes should be used for flushing, as syringes with a smaller diameter will generate a larger pressure (Evans & Dixon 2006). Smaller syringes are often required for neonatal drug doses;
- 5.13.6** Labels - all intravenous fluids should be labelled to include the name of the patient; the date and time; the name of the drug/diluent; the amount/strength of drug/diluent and the initials of two neonatal staff. The batch number of the drug/diluent may be recorded on the electronic patient record;
- 5.13.7** 70% Alcohol with 2% Chlorhexidine swabs to clean end ports;
- 5.13.8** End port(s)/filter(s)/extension sets (if necessary);
- 5.13.9** 0.9% sodium chloride or appropriate flush (pre-filled saline syringes may be used);
- 5.13.10** Gloves (non-sterile gloves for peripheral lines and sterile gloves for central lines to minimise risk to our vulnerable patient group in case of inadvertent touching of key parts);
- 5.13.11** Apron;
- 5.13.12** Sharps container.

### **5.14 Preparation and administration**

Standard aseptic non-touch technique will be employed for all lines. However, for central lines, a local decision has been made to utilise a two person technique, with a dressing pack and sterile gloves, to further minimise risk to our vulnerable patient group in case of inadvertent touching of key parts. IV medication will be prepared on a dedicated cleaned trolley at the patient bedside on the Neonatal Unit;

- 5.14.1** Ensure parents (if present) are informed about the procedure and the infant is appropriately prepared;
- 5.14.2** Two practitioners are to be present;
- 5.14.3** Wash hands with soap, apply alcohol gel and clean blue tray (as described previously);
- 5.14.4** Gather together all equipment required (see list above) and check prescription (as described previously);

- 5.14.5** Perform necessary calculations and prepare labels (do not add labels to syringes/bags until after additions have been made);
- 5.14.6** If IV Gentamicin is prescribed, the National Patient Safety Agency (NPSA) Gentamicin double checking prompt must be used every time Gentamicin is prepared and administered (NPSA February 2010) and use of this should be documented on the drug chart;
- 5.14.7** Put on disposable apron and wash hands;
- 5.14.8** Put on gloves (see 5.13.10);
- 5.14.9** Open dressing pack if accessing central lines;
- 5.14.10** Prepare equipment in tray, according to principles of aseptic non-touch technique, if accessing peripheral lines. Ensure all key parts are protected/covered;
- 5.14.11** Prepare equipment in tray, according to principles of aseptic non-touch technique, if accessing central lines. This will involve a second person to handle packaged equipment so that you can take the unpackaged sterile contents;
- 5.14.12** Reconstitute/prepare drugs as per the Unit formulary/manufacturer's recommendations/prescription;
- 5.14.13** The only time that it is permissible to replace the cover of a needle that has been used to draw up medication is either when the needle is an integral part of the syringe and cannot physically be removed (as with vitamin K and certain immunisations) or if the needle is attached to a Luer lock syringe (as the risk of contaminating key parts is higher, since it is difficult to remove an unsheathed needle from a Luer lock syringe). In these instances, the needle may be carefully re-sheathed using a 45° angle to replace the cover. However, the re-sheathing of needles is not permitted at any other time. Instead, needles that have been used to draw medication up should be discarded and, if necessary, replaced with a bung to prevent contamination of key parts;
- 5.14.14** If the final calculated volume of a required drug is <0.05ml, then the drug should be further diluted with 0.9% sodium chloride (or alternative diluent if incompatible with 0.9% sodium chloride e.g. Vitamin K) to ensure that volumes >0.05ml is administered
- 5.14.15** When a liquid drug requires further dilution, it is vital that the drug is always added to the diluent (rather than the other way round) to avoid dosing errors (Northern Neonatal Network Formulary 2020);
- 5.14.16** When preparing fluids to be administered via a central line (using aseptic technique), 70% Alcohol with 2% Chlorhexidine wipes should be used to clean the ports of total parenteral nutrition (TPN) and allowed to dry for thirty seconds, prior to attaching a giving set. This includes both the hub of the lipid syringe and the giving set port of the feeding solution bag, following removal of protective cap;
- 5.14.17** Confirm infant's identity, by checking the first name, surname, NHS/Trust number and date of birth against either the identity band or cot card (as identity bands may compromise the integrity of the infant's skin), prior to administration of any infusion/drug;
- 5.14.18** Change gloves prior to administration to a peripheral line;
- 5.14.19** Inspect cannula/insertion site for pain, redness, blanching, swelling, leakage, blockage, infiltration;

- 5.14.20** Clean administration port with 70% Alcohol with 2% Chlorhexidine swab and allow to dry for thirty seconds;
- 5.14.21** Flush with 0.9% sodium chloride, taking into account the lumen volume of the intravenous line and the potential need for fluid restriction, as dictated by the infant's condition. If patency of device is questioned, do not continue;
- 5.14.22** Administer medication according to Unit formulary/manufacturer's literature. This will ensure haemodilution and minimise the risk of 'speed shock';
- 5.14.23** When several drugs are to be given at the same time, each drug should be separated with a 0.9% sodium chloride flush to reduce the risk of incompatibility reactions, unless there are specific instructions to use another flush solution e.g. Amphotericin should be followed with a flush of 5% glucose;
- 5.14.24** Instil a final flush of 0.9% sodium chloride, taking into account the lumen volume of the IV line and the potential need for fluid restriction, as dictated by the infant's condition. The clamp on the IV line/T piece should be closed whilst instilling the final fraction of the flushing solution, to prevent the backflow of blood into the cannula, by creating pulsatile positive pressure. Some neonatal drug volumes are so small that the entire drug dose will remain within the cannula T-piece, prior to flushing. In this instance, it may be appropriate to administer a 0.9% sodium chloride flush as a slow push or infusion to avoid a rapid bolus of medication;
- 5.14.25** Infusions that are currently running through the required IV line must be paused during IV drug administration and 0.9% sodium chloride flushes (or appropriate flush) used before and after administration, to prevent incompatibility reactions;
- 5.14.26** Discard of all sharps safely;
- 5.14.27** Remove gloves and apron. Wash hands and clean blue tray (as described previously);
- 5.14.28** Document administration of IV therapy.

## **5.15 Ongoing care of intravenous infusions and devices**

- 5.15.1** All lines should be labelled with the date of insertion;
- 5.15.2** In-line filters must be changed every four days and in line Y connectors without a filter must be changed every seven days (as per manufacturer's recommendations) and a sticker placed on the filter to show this;
- 5.15.3** All end ports must be changed each time they are removed or every 7 days, at least;
- 5.15.4** All infusions including administration sets, must be changed every 24 hours, unless the drug formulary/manufacturer's instructions dictate otherwise;
- 5.15.5** All IV administration sets must have an integral clamp and clamps on intravenous administration sets must be closed before removing the administration set from an infusion pump or switching the pump off. This is required regardless of whether the administration set has an anti-free flow device (NPSA August 2010);



- 5.15.6** IV infusions should be disconnected from the patient once they are no longer required. Disconnected fluids should be discarded;
- 5.15.7** IV drugs and infusions should always be administered via a volumetric pump or syringe pump and the number of the device documented on the IV fluid chart each shift;
- 5.15.8** When using a syringe pump to administer IV fluids or medicines to neonates, a bag of fluid should not be left connected to the syringe, except for the administration of blood products (NPSA August 2010);
- 5.15.9** During infusion administration, both the volume to be infused and the pressure limit should be set (30mmHg above resting pressure). It is important to remember that the pressure reading illustrates the pressure being exerted by the pump, in order to push the fluid through the equipment rather than the pressure inside the vein. This pressure will change depending on the viscosity of the infusion, the infusion rate, the lumen size of the giving set, the lumen size of the venous access device, the position of the pump in relation to the infant and the alarm limits should be altered accordingly e.g. when the incubator height is adjusted;
- 5.15.10** The IV site, fluid rate, volume infused and pressure reading should be checked and recorded hourly on the IV fluid chart. All these details should be checked at the start of each shift against the prescription. The neonatal visual infusion phlebitis score (VIPS) shown in appendix 2 should be assessed for each peripheral and central venous access device at least once a shift, using the peripheral or central line care bundle. This tool is designed to evaluate the catheter site and allow early detection of problems;
- 5.15.11** After each patient use, the pump should be wiped clean with a Trust approved agent e.g. Clinell<sup>®</sup> wipe and a decontamination label applied until the pump is in use;
- 5.15.12** All pumps should be kept plugged in when not in use, to maintain battery.
- 5.15.13** Babiven<sup>®</sup> and the administration set can be changed every 48 hours, in line with the manufacturer's recommendations;
- 5.15.14** Ideally, TPN will be administered via a dedicated lumen of a central venous catheter. TPN should not be administered peripherally, except in extreme circumstances where central venous access is not possible/practical; for short term use and when the total TPN concentration is less than 600mOsm/l, as calculated on the TPN excel proforma (Evans & Dixon 2006; NICE guideline 2020). This decision should be made by a Neonatal Consultant and documented in the patient notes;
- 5.15.15** In cases of limited venous access, the central venous catheter may be used for more than one compatible infusion, following discussion with Consultant or senior medical personnel and in line with Unit formulary or Neonatal Formulary compatibilities. In such instances, terminal co-infusion is safest, where connectors are placed as close to the infant as possible so that multiple infusions are only in contact with one another, for as short a time as possible (Northern Neonatal Network Formulary 2020);

- 5.15.16** It is important to note that any infusion given at a low flow rate e.g. inotropes, insulin, morphine may take considerable time to reach a patient with an extension set. When initiating such infusions, the administration set and/or any extension sets should be fully primed with the drug/infusion, while still disconnected from the patient. This will ensure that the drug has to infuse through the minimum distance before it reaches the patient;
- 5.15.17** When using an Asena CC syringe pump to administer infusions, the purge function should be used prior to connecting the infusion to the patient. This ensures that the mechanical slack is taken up and avoids any unnecessary delay in the drug reaching the patient, particularly when the infusion rate is <1ml/hr;
- 5.15.18** The use of smart pump drug libraries should be used wherever possible as these provide pre-programmed dosing ranges, in line with local protocols;
- 5.15.19** Routine flushing of drugs or fluids through an established IV line should be avoided except in extreme circumstances e.g. lack of available access. In this instance, careful consideration of the risks should be made prior to the administration of any flush through a line containing another drug due to the risk of a bolus of drug (Northern Neonatal Network Formulary 2020);
- 5.15.20** Insulin syringes must be used to prepare insulin infusions as these are marked with units rather than millilitres;
- 5.15.21** When administering infusions that are hyperosmolar/highly irritant to peripheral veins e.g. sodium bicarbonate, calcium, there may be an increased risk of extravasation injury (Restieaux *et al* 2013). In this case, the infant should be nursed so that the peripheral cannula site is highly visible (e.g. not lying on the cannula), as far as is possible. The site should be assessed as often as is possible, but this should involve a visual check of the entry site at least every ten minutes. This is to aid early identification of any signs of phlebitis, swelling, leaking, blanching, and redness. An infusion device which monitors the pressure in numbers should be used to administer all intravenous drugs/fluids;
- 5.15.22** Bags of heparin-saline may be kept in the refrigerator for up to 24 hours, if it is used for a single named infant. It is not permitted to use the same bag for more than one infant, due to the risk of cross-infection. Other bags of diluents must not be kept and should be discarded after single use;

## **6 Training Implications**

- 6.1** Prior to unsupervised practice, all registered neonatal nursing staff must have attended a recognised neonatal IV study day followed by a subsequent period of supervised practice and successful completion of the competency-based assessment in appendix 1. Evidence of an update will be required by all neonatal nursing and midwifery staff every three years.

- 6.2** The practical competency based assessment in appendix 1 must be assessed by a Band 6 or Band 7 registered nurse/midwife who is a qualified Practice Assessor and a current IV therapy certificate. The competency involves two components: a theoretical component which is completed on the neonatal IV study day and a practical assessment which should be completed within three months of attending the study day.

## **7 Monitoring Arrangements**

- 7.1** The effectiveness of this policy will be monitored by the following means:
- 7.1.1** A list of all those who are competent at neonatal IV therapy will be held by the Unit manager and be available for audit purposes. Staff will attend a neonatal IV therapy course every three years;
  - 7.1.2** A peripheral line care bundle is completed for every peripheral cannula on the neonatal unit and a central line care bundle is used for each central line. Nursing staff must complete these once a shift to document that the cannula is managed and cared for as this policy dictates. This is audited via Infection Prevention team audits;
  - 7.1.3** The Trust Infection Prevention team and the IV therapy team conduct ad hoc audits on the neonatal unit to check peripheral/central lines, involving inspection of dressing type, labelling of device and the length of time the device is in situ;
  - 7.1.4** An annual safe and secure handling of medicines audit is conducted which involves the observation of two drug administration processes to check that these are performed according to policies. This is performed by a Neonatal Team Leader and/or Pharmacist;
  - 7.1.5** The neonatal staff conduct weekly hand hygiene audits, to ensure staff are decontaminating their hands prior to procedures, such as intravenous therapy. These results are shared throughout the Division and Trust.

## **8 Due Regard Assessment Screening**

The BSUH NHS Trust has a statutory duty to assess and consult on whether planning, policies and processes impact service users, staff and other stakeholders with regard to age, disability, gender (sex), gender identity, marriage or civil partnership, pregnancy and maternity, race (ethnicity, nationality, colour), religion or belief and sexual orientation. It recognises that some people may face multiple discrimination based on their identity. A review of the assessed impact of this policy against these criteria can be seen in Appendix 2.

## **9 Links to Other Trust Policies**

This policy should be read in conjunction with the following policies:

- Aseptic Non-Touch Technique policy (Trust and Unit)
- Policy for the Safe and Secure Handling of Medicines
- Policy for the Care of the Patient Receiving a Blood Component (Appendices 5 and 6 contains information relating to neonates and to Jehovah's Witnesses.)
- Infection Prevention Standard Principles Policy

## 10 Associated Documentation

Competency based assessment in Appendix 1

## 11 References

National Patient Safety Agency (NPSA). *NPSA/2010/PSA001 Safer Use of Intravenous Gentamicin in Neonates*. February 2010. London: NPSA.

National Patient Safety Agency (NPSA). *NPSA/2010/RRR015 Prevention of over Infusion of Intravenous Fluid and Medicine in Neonates*. August 2010. London: NPSA.

NICE Guideline [NG154]. 2020. *Neonatal Parenteral Nutrition*

Nursing & Midwifery Council (NMC). 2018. *The Code: Professional Standards of Practice and Behaviour for Nurses, Midwives and Nursing Associates*. London: NMC.

Ainsworth, S. 2020. *Neonatal Formulary* 8<sup>th</sup> edition. Oxford: Oxford University Press.

Restieaux, M., A. Maw, R. Broadbent, P. Jackson, D. Barker and B. Wheeler. 2013. Neonatal extravasation injury: prevention and management in Australia and New Zealand – a survey of current practice. *BMC Pediatrics* 13:34

Royal Pharmaceutical Society & Royal College of Nursing. 2019. *Professional Guidance on the Administration of Medicines in Healthcare Settings*

**Appendix 1:**

**COMPETENCY BASED ASSESSMENT FOR INTRAVENOUS THERAPY ADMINISTRATION TO INFANTS ON THE NEONATAL UNIT**

<b>NAME OF STAFF MEMBER BEING ASSESSED</b>	
<b>JOB TITLE</b>	
<b>WARD/BASE SITE</b>	
<b>DATE OF NEONATAL IV TRAINING DAY</b>	
<b>NAME OF ASSESSOR</b>	
<b>JOB TITLE OF ASSESSOR</b>	
<b>COMPETENCY ACHIEVED</b>	<b>YES/NO</b>
<b>DATE COMPETENCY ACHIEVED</b>	

**ONCE THIS DOCUMENT IS COMPLETE, PLEASE SCAN AND SEND A COPY BY EMAIL TO:**

- **THE BSUH IV THERAPY TEAM** at [bsuh.iv.team@nhs.net](mailto:bsuh.iv.team@nhs.net)
- **THE NEONATAL PRACTICE EDUCATOR**

## **COMPETENCY BASED ASSESSMENT: INTRAVENOUS THERAPY ADMINISTRATION TO INFANTS ON THE NEONATAL UNIT**

Please ensure you have read the BSUH Policy Intravenous Therapy Administration to Infants on the Neonatal Unit (C017) prior to completing the following competency. This competency assessment must be completed by all registered professionals who wish to administer IV therapy to infants on the neonatal unit within Brighton and Sussex University Hospitals NHS Trust.

The assessment can only be performed by a Band 6 or Band 7 neonatal nurse who is themselves assessed as IV competent and who is a qualified Practice Assessor.

It is each individual's responsibility to maintain their competency through regular clinical practice in line with BSUH Trust and Unit policies. Competency assessments should be updated every three years.

Theoretical knowledge	Name of assessor	Date achieved
<b>During the Neonatal IV therapy training or through professional discussion, the candidate will:</b>		
Discuss relevant Trust and Unit policies relating to the administration of neonatal IV therapy		
Correctly calculate a selection of neonatal drug doses and infusion rates		
Demonstrate an awareness of different neonatal vascular devices and their management		
Explain what is meant by a 1% solution		
Explain what is meant by 1:1000		
Explain what is meant by 1:10 000		
Explain how many milligrams in 1 gram		
Explain how many micrograms in 1 milligram		
Discuss relevant national and local alerts relating to neonatal IV therapy		
Describe what complications might arise from IV therapy, including anaphylaxis		
Describe what actions you would take in the event of the complications described above		
Describe the action to be taken in the event of an error associated with IV therapy		
Describe how to complete an incident report		
Demonstrate an understanding of legal and professional issues relating to neonatal IV therapy		

Practical performance	Name of assessor	Date achieved
<b>During a period of supervised practice, the candidate will:</b>		
Demonstrate adequate knowledge of the relevant history and condition of the infant		
Explain the IV therapy procedure to the parent and prepare the infant appropriately		
Demonstrate safe and appropriate use of volume controlled pumps and administration sets		
Demonstrate safe and appropriate use of syringe pumps and administration sets		
Access a peripheral venous line using aseptic non-touch technique with non-sterile gloves		
Access a central venous line using aseptic non-touch technique with sterile gloves		
<p>Demonstrate safe practice during the preparation and administration of a bolus, an intermittent infusion and a continuous infusion, with attention to:</p> <ul style="list-style-type: none"> <li>Hand hygiene</li> <li>Collection and preparation of appropriate equipment</li> <li>Checking prescription</li> <li>Infant identification</li> <li>Drug storage</li> <li>Drug compatibilities and side effects</li> <li>Drug preparation and administration</li> <li>Drug calculations</li> <li>Safety of infant</li> <li>Safety of self</li> <li>Safe disposal of sharps and waste</li> <li>Accurate documentation, including for missed or omitted doses</li> </ul>		



Practical performance	Name of assessor	Date achieved
Demonstrate a sound understanding of the IV administration of the following, either through demonstration or discussion: Inotropes Total Parenteral Nutrition Antibiotics (including the Gentamicin NPSA alert February 2010) Analgesics Insulin		
Complete the ANTT competency assessment overleaf for IV administration		

**ANTT competency assessment**

<b>Name:</b>	<b>Job title:</b>
<b>Ward:</b>	<b>Date of assessment:</b>

**An observational assessment or a simulation of practice:**

- Only assessors with evidence of ANTT competence can assess others
- The assessor should assess the theoretical aspects prior to the practical elements of the procedure

**Record procedure type (delete as appropriate)**

- Venepuncture- V
- Cannulation – C
- Urinary catheterisation – UC
- Blood cultures – BC
- Simple wound care – SW
- Complex wound care – CW
- Intravenous drug administration/flush – IV
- Other – O, please specify \_\_\_\_\_

**ANTT® theory & practice terms – mark all components below Y, N or N/A**

**Pre-procedure**

	Yes (Y)	No (N)
Is able to state the fundamental concept of ANTT®		
Is able to state the type of procedures ANTT® is suitable for		
Is able to name the two types of ANTT®		
Is able to describe the main difference in the way Key-Parts are managed in the two types of ANTT®		
Is able to explain the type of ANTT going to be used and why it was selected		
Is able to state the definition of a Key-Part		
Is able to identify all the Key-Parts of the procedure		

**Preparation**

Uses a plastic tray/metal procedure trolley to place the equipment in/onto?		
Cleans/disinfects the plastic tray/metal procedure trolley prior to use?		
Cleans hands prior to equipment preparation?		
Gathers the equipment necessary for the procedure?		
Selects gloves (sterile or non-sterile) as appropriate for the procedure?		
Puts on the gloves at the appropriate stage of the procedure?		
Avoids touching Key-Parts with their hands/gloved hands, whilst preparing the equipment?		
Protects Key-Parts with micro critical aseptic fields when not in use e.g. caps, covers, packaging?		

**Procedure**

Removes environmental risks from the procedure area e.g. windows closed?		
Cleans hands prior to opening the procedure packs?		
Cleans hands again immediately prior to donning gloves and starting the procedure?		
Disinfects Key-Parts correctly before use e.g. IV injection port scrubbed for 15 seconds with a 70% alcohol/2% chlorhexidine wipe & allowed to dry thoroughly for 30 seconds		
Avoids touching all aseptic Key-Parts with their gloved hands?		
Protects all Key-Parts when not in use during the procedure by using micro critical aseptic fields e.g. caps, covers, packaging?		
Promotes asepsis of Key-Parts by ensuring organised management of the general aseptic field?		

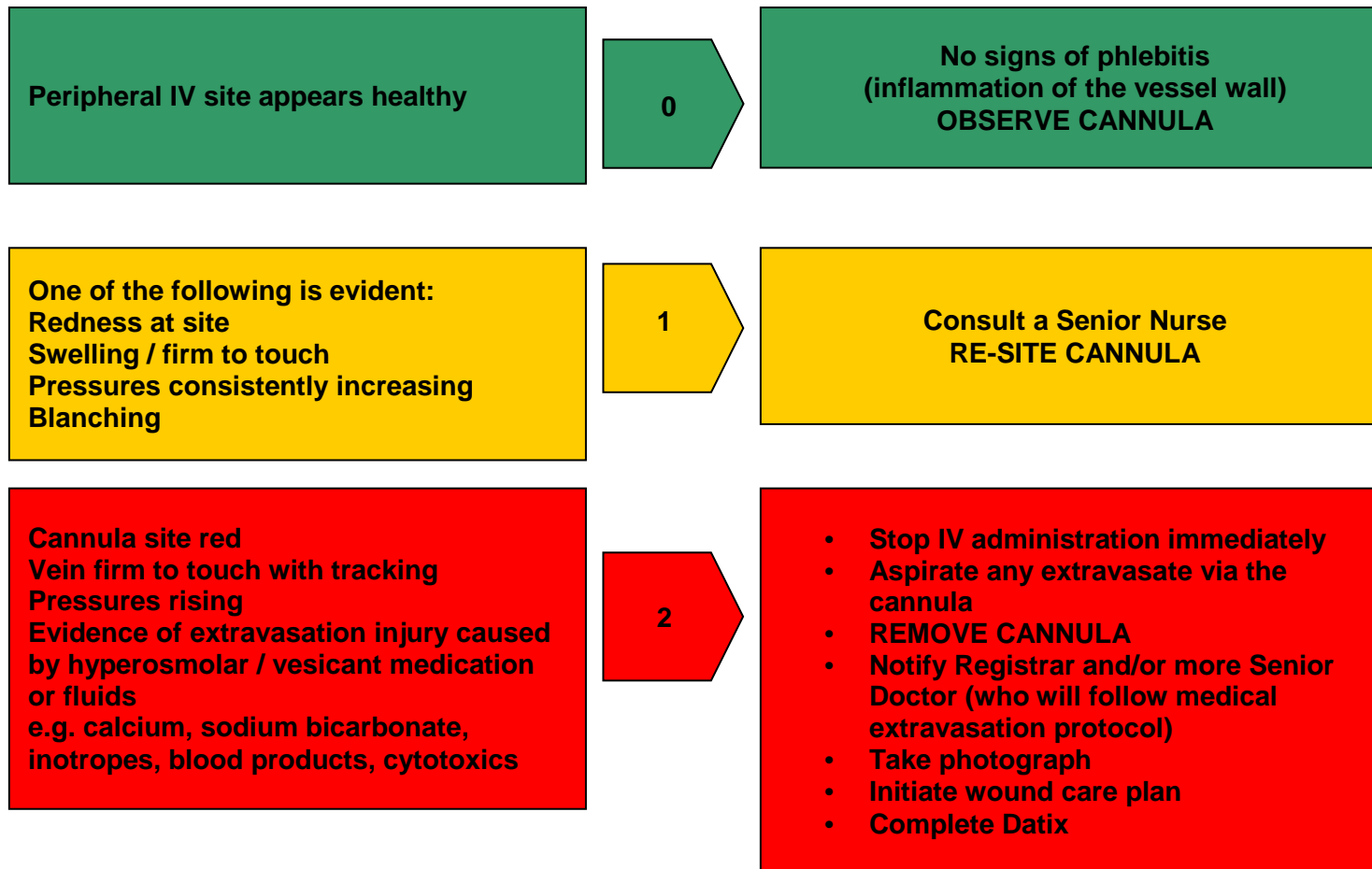
**Decontamination**

Safely disposes of used sharps and waste, according to Trust guidelines/policies?		
Cleans hands immediately following glove removal, on completion of the procedure?		
Cleans the plastic tray/procedure trolley before storage?		

<b>Outcome of assessment (please delete as appropriate)</b>	<b>PASS</b>	<b>FAIL</b>
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Assessor name:		Assessor signature:	
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**Appendix 2: Visual Infusion Phlebitis Score (VIPS) for Use with Neonates**



### **Appendix 3: Due Regard Assessment Tool**

BSUH NHS Trust has a statutory duty to assess and consult on whether planning, policies and processes impact service users, staff and other stakeholders with regard to age, disability, gender (sex), gender identity, marriage or civil partnership, pregnancy and maternity, race (ethnicity, nationality, colour), religion or belief and sexual orientation. It recognises that some people may face multiple discrimination based on their identity. A review of the assessed impact of this policy against these criteria can be seen below.

The following due regard statements have been discussed with and agreed by the Head of Equality, Diversity and Human Rights.

		Yes/No	Comments
<b>1.</b>	<b>Does the document/guidance affect one group less or more favourably than another on the basis of:</b>		
	<ul style="list-style-type: none"> <li>Age</li> </ul>	No	
	<ul style="list-style-type: none"> <li>Disability</li> </ul>	No	Any baby who is born with an absent limb or a limb deformity may still be cannulated and receive intravenous therapy. An alternative limb may need to be used or an alternative site e.g. a scalp vein
	<ul style="list-style-type: none"> <li>Gender (Sex)</li> </ul>	No	
	<ul style="list-style-type: none"> <li>Gender Identity</li> </ul>	No	
	<ul style="list-style-type: none"> <li>Marriage and civil partnership</li> </ul>	N/A	
	<ul style="list-style-type: none"> <li>Pregnancy and maternity</li> </ul>	N/A	
	<ul style="list-style-type: none"> <li>Race (ethnicity, nationality, colour)</li> </ul>	No	
	<ul style="list-style-type: none"> <li>Religion or Belief</li> </ul>	No	Guidance for the treatment of Jehovah's Witnesses, in relation to blood product administration, can be found in Appendix B of the Trust Policy Administration of Blood and Blood Components.
	<ul style="list-style-type: none"> <li>Sexual orientation, including lesbian, gay and bisexual people</li> </ul>	N/A	
<b>2.</b>	<b>Is there any evidence that some groups are affected differently and what is/are the evidence source(s)?</b>	No	
<b>3.</b>	<b>If you have identified potential discrimination, are there any exceptions valid, legal and/or justifiable?</b>	N/A	
<b>4.</b>	<b>Is the impact of the document likely to be negative?</b>	No	
<b>5.</b>	<b>If so, can the impact be avoided?</b>	N/A	
<b>6.</b>	<b>What alternative is there to achieving the intent of the document without the impact?</b>	N/A	

7.	<b>Can we reduce the impact by taking different action and, if not, what, if any, are the reasons why the policy should continue in its current form?</b>	N/A	
8.	<b>Has the document been assessed to ensure service users, staff and other stakeholders are treated in line with Human Rights FRED A principles (fairness, respect, equality, dignity and autonomy)?</b>	Yes	

If you have identified a potential discriminatory impact of this policy, please refer it to the Neonatal Practice Educator, together with any suggestions as to the action required to avoid/reduce this impact.

For advice in respect of answering the above questions, please contact [Equality@bsuh.nhs.uk](mailto:Equality@bsuh.nhs.uk) (01273 664685).

## Appendix 4 – Dissemination and Implementation Plan

	Dissemination Plan	Comments
1.	<b>Identify:</b>	
	<ul style="list-style-type: none"> <li>Which members of staff or staff groups will be affected by this policy?</li> </ul>	Neonatal nurses
	<ul style="list-style-type: none"> <li>How will you confirm that they have received the policy and understood its implications?</li> </ul>	Discussed on neonatal IV training days and during induction to unit Completion of competency based assessment
	<ul style="list-style-type: none"> <li>How have you linked the dissemination of the policy with induction training, continuous professional development and clinical supervision as appropriate?</li> </ul>	All new neonatal nurses receive neonatal IV training and this policy is discussed and signposted within the training Neonatal nurses require a three yearly update
2.	<b>How and where will staff access the document (at operational level)?</b>	Via Trust Intranet and Unit website

		Yes/No	Comments
3.	<b>Have you made any plans to remove old versions of the policy or related documents from circulation?</b>	Yes	The old version of the policy will be removed when this updated policy is uploaded to the Trust intranet. The old policy will be archived for future reference if needed
4.	<b>Have you ensured staff are aware the document is logged on the organisation's register?</b>		