

## INDWELLING DEVICES POLICY

Version:	3
Date issued:	<b>May 2017</b>
Review date:	<b>May 2020</b>
Applies to:	All clinical staff, Medical Staff

**This document is available in other formats, including easy read summary versions and other languages upon request. Should you require this please contact the Document Author.**

## DOCUMENT CONTROL

<b>Reference</b> KA/May17/ID	<b>Version</b> 3	<b>Status</b> Final	<b>Author</b> Head of Infection Prevention and Control / Decontamination Lead
<b>Amendments</b> 2.1 Routine update in line with Trust Procedure and national Guidance 2.2 Amended following review by Clinical Policy Review Group and to reflect changes in policy document format.			
<b>Approving body</b>	Clinical Governance Group	Date: March 2017	
<b>Equality Impact Assessment</b>	Impact Part 1	Date: TBC	
<b>Ratification Body</b>	Senior Management Team	Date: May 2017	
<b>Date of issue</b>	<b>May 2017</b>		
<b>Review date</b>	<b>May 2020</b>		
<b>Contact for review</b>	Head of Infection Prevention and Control / Decontamination Lead		
<b>Lead Director</b>	Director of Infection Prevention and Control		

## CONTRIBUTION LIST Key individuals involved in developing the document

<b>Designation or Group</b>
Senior Infection Prevention and Control Nurse
Head of Infection Prevention and Control / Decontamination Lead
Infection Prevention and Control Nurse
Infection Prevention and Control Nurse
Infection Control Assurance Group
Clinical Policy Review Group
Trust Equality and Diversity Lead

## **CONTENTS**

<b>Section</b>	<b>Summary of Section</b>	<b>Page</b>
Doc	Document Control	2
Cont	Contents	3
1	Introduction	4
2	Purpose & Scope	4
3	Policy Statement	5
4	Definitions	5
5	Duties and Responsibilities	6
6	Standard Infection Prevention and Control Procedures	7
7	Infection or Inflammation	8
8	Urinary Catheters	8
9	Peripheral Intravenous Cannulae	9
10	Central Venous Lines	10
11	Parenteral Feeding	10
12	Monitoring Compliance and Effectiveness	11
13	Training and Competency Requirements	11
14	References, Acknowledgements and Associated Documents	12
15	Appendices	12
Appendix A	Cannula Care Record	13

## **1. INTRODUCTION**

- 1.1 This policy relates to any indwelling device which penetrates the skin or breaches the body's natural defence mechanisms Indwelling is any device which is left in situ on the patient e.g. urinary catheter, or intravenous cannula
- 1.2 Indwelling devices can allow bacteria or fungi to invade the body causing an infection.
- 1.3 The longer a device remains in place the greater the potential for acquiring an infection. Additional intervention/manipulations will also increase the risk for cross infection.
- 1.4 The use of indwelling devices is commonplace in acute care and is increasingly common in community/primary care settings. Indeed indwelling devices such as urinary catheters or peripheral cannulae are often critical to a patient's care and survival. It is therefore important that these devices are managed and used in an appropriate and hygienic way.

## **2. PURPOSE & RATIONALE**

- 2.1 The association between devices and the acquisition of infections is well evidenced. In the region of 80% of urinary tract infections can be traced back to indwelling urinary catheters whilst approximately 60% of bacteraemia (blood infections) were associated with an intravascular device or with device related infections (Ref Department of Health, 2007).
- 2.2 The risk of infection with indwelling devices is associated with the method of insertion and duration of use, the quality of device care and the patient's susceptibility to infection.
- 2.3 The management of indwelling devices is a high risk procedure where all healthcare professionals, carers and patients have an important role to play in the prevention and control of healthcare associated infections.
- 2.4 Indwelling devices include the following:
  - Peripheral vascular devices
  - Central Venous Catheters (Peripherally Inserted Central Catheter (PICC) lines, Hickman lines etc)
  - Urinary Catheters either urethral or supra pubic
  - Enteral feeding lines (Percutaneous Endoscopic Gastrostomy Tubed (PEG), Nasogastric (NG) tubes, gastrostomy tubes etc)
  - Parenteral feeding lines
  - Surgical drains

### **3. POLICY STATEMENT**

- 3.1 Indwelling devices are essential in the ongoing care and treatment of patients; however they breach the body's natural defences and therefore increase the risk of infection.
- 3.2 Indwelling devices should, therefore, only be used when clinically indicated and removed as soon as this indication ceases.
- 3.3 If clinically indicated they must be replaced in line with the manufacturer's instructions or best practice guidance.
- 3.4 All precautions must be taken during insertion and ongoing care or use of the device to prevent introduction of infection and whilst in situ, they require regular checks for signs of infection with appropriate actions taken if present.

### **4. DEFINITIONS**

#### **Peripheral Vascular Devices**

- 4.1 A device (such as a cannula) inserted into a peripheral vein used for administration of drugs or fluids.

#### **Central Venous Lines (PICC lines, Hickman lines etc.)**

- 4.2 A device inserted into a major vein in the neck, chest or groin to administer drugs and nutrition, also can be used to access blood for testing. Can be used longer term.

#### **Urinary Catheters (either urethral or supra pubic)**

- 4.3 A flexible hollow tube either inserted into the urethra (Urethral Catheter) or through the lower abdominal wall (Supra Pubic Catheter) into the bladder in order to drain urine.

#### **Enteral Feeding Lines (PEGS, Nasogastric tubes, gastrostomy tubes etc.)**

- 4.4 A flexible hollow tube inserted directly to the stomach either through the abdominal wall or via the nose and oesophagus to administer nutrition, usually in liquid form and can be used to administer liquid form drugs.

#### **Parenteral Feeding Lines**

- 4.5 A device such as a venflon or central venous line can be used. Used for administering nutrition in liquid form either total nutrition or as a supplement to normal oral nutritional intake.

## **Surgical Drains**

- 4.6 A tube sometimes connected to a collection device, usually inserted at the time of surgery, used for draining pus, blood or fluid from a wound.

## **5. DUTIES AND RESPONSIBILITIES**

### **5.1 The Trust Board, via the Chief Executive is responsible for:-**

- Ensuring there are effective and adequately resourced arrangements for the management of Indwelling Devices within the Trust.
- Identifying a board level Lead for Infection Prevention and Control.
- Ensuring that the role and functions of the Director of Infection Prevention and Control are satisfactorily fulfilled by appropriate and competent persons as defined by DH, (2008, updated 2015).

### **5.2 Director for Infection Prevention and Control is responsible for:-**

- Overseeing the local control of and the implementation of the Indwelling Devices Policy.

### **5.3 Infection Prevention and Control Assurance Group is responsible for:-**

- Ensuring that procedures for the implementation of the Indwelling Devices Policy are continually reviewed and improved within the Trust.
- Monitor Incidents and complaints and report to Clinical Governance.

### **5.4 Assessing Clinician is responsible for:-**

Will routinely and regularly assess and document the maintenance of any Indwelling device

### **5.5 Treating Clinician is responsible for:-**

Will routinely document the date of insertion and the date of removal of the device in the Clinical records

### **5.6 Infection Prevention and Control Team is responsible for:-**

- Education and training as and when needed in the Infection Prevention and Control management of Indwelling Devices;

### **5.7 Team Manager/Matron or deputy is responsible for:-**

- Ensuring infection control precautions are carried out as detailed in this policy.
- Ensuring that staff are aware of the policy.
- Ensuring that staff are released to attend relevant Training and for recording attendance at training in local training records. All non-attendance at training will be followed up by managers.

- Ensuring individual staff and team's training needs are met through appraisal and in line with the Training Needs Analysis. Training information should be passed to the Learning and Development Department who will update the electronic staff record.

#### **5.8 Ward/ Clinical staff are responsible for:-**

- Adhering to this policy
- Ensuring that staff are released to attend relevant Training and for recording attendance at training in local training records. All non-attendance at training will be followed up by managers.
- Ensuring individual staff and team's training needs are met through appraisal and in line with the Training Needs Analysis. Training information should be passed to the Learning and Development Department who will update the electronic staff record.
- Completion of competency assessments
- Ensuring they gain verbal or written consent from the patient and that this is documented in the relevant care record

#### **5.9 Learning and Development Team are responsible for:-**

- Recording attendance at Training and advising Operational Managers of non-attendance.
- Training on high risk devices i.e. Nasogastric Tubes, Cannulae, and Central line management

### **6. STANDARD INFECTION PREVENTION AND CONTROL PROCEDURES**

- 6.1 Whenever staff are caring for patients with an indwelling device they will adhere to all required aseptic or non-touch techniques. (See Trust Aseptic Non Touch Techniques Policy).
- 6.2 The use of personal protective equipment where there is any risk of contamination with blood or body fluids is essential when working with indwelling devices.
- 6.3 All personal protective equipment is single use and must be changed between patients.
- 6.4 Hand washing or decontamination is required before and after intervention with an indwelling device. Where gloves are required hand hygiene will be performed before and after their use and in accordance with 5 moments for Hand Hygiene (See Trust Hand Hygiene Policy).
- 6.5 Any procedure to insert an Indwelling device will take place in a designated, clean environment wherever possible. Treatment rooms/areas should be utilised where they are available.

## **7. INFECTION OR INFLAMMATION**

7.1 Signs of inflammation or infection of an indwelling device demands its swift removal and swab for Microscopy Culture & Sensitivity. For peripheral lines, it is not prudent to wait until the line has been assessed by a member of the medical team unless one is instantly available, Central Venous Access lines, however should be assessed by a doctor.

7.2 Inflammation is characterised by:

- pain/discomfort (initially on movement or when the drip is used but then at rest),
- local swelling and redness,
- pus from around the insertion site,
- phlebitis proximal to the device
- vasculitis
- signs of general infection e.g. high temperature, raised white count raised C-Reactive Protein and positive blood cultures

7.3 Leaving devices in situ when any of the above are present or where a device is no longer clinically indicated, could precipitate a major infection or bacteraemia.

## **8. URINARY CATHETERS**

8.1 Following the acquisition of consent from patient, the patient must be informed of who will carry out procedure and be given the opportunity to request gender of the practitioner (e.g. female patient / female practitioner). Any religious beliefs should also be taken into consideration prior to procedure being carried out.

8.2 Only use urinary catheters when there is no suitable alternative to managing the patient's continence issues.

8.3 Keep catheters in for as short a time as possible, reviewing regularly the patient's ongoing clinical need for a catheter.

8.4 Only trained and competent staff should undertake the following – insertion and removal of urinary catheters and administering bladder washouts (undertaken only when prescribed as part of specialist urological treatment).

8.5 Urine sampling from a catheter ideally should be from an identified sterile port. Incorrect sampling can result in mixed growth of contaminant organisms and can delay appropriate and effective treatment. Sampling should be done using an aseptic non-touch technique and the correct catheter port and technique. Do not collect samples from the urine drainage bag. If specimens are submitted for testing from the urine drainage bag then the request should be clearly labelled as a 'clean catch' specimen.



- 8.6 Educate patients and carers in correct catheter maintenance, emphasising the techniques which will reduce the risk of infection i.e. keep closed system, position catheter off the floor and avoidance of touching the catheter unnecessarily.
- 8.7 Document the date of insertion and the date of removal of the device in the clinical records.
- 8.8 Refer to the Trust Catheterisation (for Adults) Policy for full and detailed advice about the care and management of urinary catheters.

## **9. PERIPHERAL INTRAVENOUS CANNULAE**

- 9.1 Only trained and competent staff using strictly aseptic non-touch techniques must undertake out intravenous cannulae insertion using the Trust approved insertion system (including a needle safe cannula). This is to include Medical Staff and South West Ambulance Service Trust
- 9.2 Use 2% chlorhexidine gluconate and 70% isopropyl alcohol (Chloraprep) or povidone iodine in alcohol for patients with a chlorhexidine sensitivity for skin preparation and allow to dry on the skin prior to insertion (EPIC 3, 2014).
- 9.3 Keep the number of lines and stopcocks to an absolute minimum which is consistent with the clinical need.
- 9.4 A record of the date of insertion and removal must be made in the patient's medical/nursing notes see Appendix A. Removal must be undertaken as soon as the device is no longer clinically indicated.
- 9.5 If cannulae site shows clinical signs of infection or inflammation in accordance with the cannula care record then consider for removal or seek medical advice immediately. Regularly inspect peripheral cannulae (a minimum of each shift or if more frequent at each time of use) and change every 72 hours irrespective of the signs or presence of infection (this may be extended to 96 hrs for final doses of intravenous therapy so long as the cannulae shows no clinical signs of infection or inflammation) .
- 9.6 Administration sets must be changed between each unit of platelets, following 3 transfused units of blood or after 12 hours of continuous blood transfusion (whichever is sooner), after 96 hrs (or manufacturers guidelines) of continuous clear fluid infusion or after 48hrs of continuous sub cutaneous infusion. 24 hours (whichever is sooner) for other clear fluids change sets every 72 hours.
- 9.7 Dressings should be semi permeable and sterile; use a transparent dressing to allow regular visual checks. Non sterile tape should not be used to secure venflons.

- 9.8 Dressings will be changed when soiled, damp or loose using an aseptic non-touch technique.
- 9.9 document the date of insertion, regular checks undertaken and the date of removal of the device in the clinical records, using the cannula care record.
- 9.10 Cannulae removal will be by a non-touch procedure using sterile gauze to cover the exit site.

## **10. CENTRAL VENOUS LINES**

- 10.1 Only trained and competent staff using strictly aseptic techniques will insert, manipulate or remove central and peripherally sited venous access lines (PICC/Long lines). All practice will be in accordance with recommendations from EPIC 3 (2014).
- 10.2 Use an occlusive transparent dressing to allow continuous inspection of the exit site and change the dressing every seven days (or earlier if needed).
- 10.3 Routinely document the date of insertion, regular checks undertaken and the date of removal of the device in the clinical records.
- 10.4 If the central line shows any clinical signs of infection/inflammation medical advice should be sought immediately and swab of the insertion site taken for Microscopy Culture & Sensitivity
- pain/discomfort (initially on movement or when the drip is used but then at rest),
  - local swelling and redness,
  - pus from around the insertion site,
  - phlebitis proximal to the device
  - vasculitis
  - signs of general infection e.g. high temperature, raised white count raised C-Reactive Protein and positive blood cultures

## **11. PARENTERAL FEEDING (INCLUDING NASOGASTRIC TUBE)**

- 11.1 Keep intravenous feeding lines in for as short a time as possible.
- 11.2 Insertion, manipulation and removal of intravenous feeding lines will only be undertaken by trained and competent staff using a strictly aseptic technique.
- 11.3 A dedicated lumen or line for feeds will be utilised, no other infusions will be given via that line and three way stopcocks must never be used.
- 11.4 Intravenous feeding insertion sites will be regularly inspected for signs of infections (at each shift or at each use whichever is more frequent).
- 11.5 The line will be removed if there are any clinical signs of infection or inflammation.

- 11.6 Always record the date of insertion, checking of the device and removal in the clinical record
- 11.7 See the Trust Enteral Feeding policy for full and detailed advice about the care and management of Parental feeds.
- 11.8 For further advice around the use of Indwelling devices or care management please contact the Infection Prevention and Control team, Specialist Nursing team or the consultant microbiologist relevant to your area.

## **12. MONITORING COMPLIANCE AND EFFECTIVENESS**

### **12.1 Monitoring arrangements for compliance and effectiveness**

- Overall monitoring will be by the Infection Control Assurance Group

### **12.2 Responsibilities for conducting the monitoring**

- The Infection Prevention and Control Assurance Group will monitor procedural document compliance and effectiveness where they relate to clinical areas.
- Lessons learnt to be shared at the relevant Best Practice Group
- Cannula Care Audits will be carried out quarterly by the Infection Prevention and Control team
- Catheter Associated Urinary Tract Infections will be monitored via the Safety Thermometer monthly reporting

### **12.3 Methodology to be used for monitoring**

- Incident reporting and monitoring

### **12.4 Frequency of monitoring**

- The Infection Control Assurance Group reports to the Clinical Governance Group quarterly

### **12.5 Process for reviewing results and ensuring improvements in performance occur.**

Audit results will be presented to the Infection Prevention and Control Assurance group for consideration, identifying good practice, any shortfalls, action points and lessons learnt. This Group will be responsible for ensuring improvements, where necessary, are implemented.

## **13. TRAINING AND COMPETENCY REQUIREMENTS**

- 13.1 The Trust will work towards all staff being appropriately trained in line with the organisation's Staff Mandatory Training Matrix (training needs analysis).

All training documents referred to in this policy are accessible to staff within the Learning and Development Section of the Trust Intranet.

13.2 Training applicable to this policy includes

- Infection Prevention and Control
- Cannulation
- Intravenous Drug Therapy
- Catheterisation
- Enteral Feeding

#### **14. REFERENCES, ACKNOWLEDGEMENTS AND ASSOCIATED DOCUMENTS**

14.1 Department of Health (2008) The Health and Social Care Act 2008, Code of Practice for health and social care on the prevention and control of infections and related guidance. (Updated 2015)

Department Of Health (2007) Saving Lives: Reducing Infection, Delivering Clean Safe Care High Impact Interventions.

Epic 3: National Evidence-Based Guidelines for Preventing Healthcare-Associated Infections in NHS Hospitals in England (2014)


RCN, Infusion Standards, 2016

#### **14.2 CROSS REFERENCE TO OTHER PROCEDURAL DOCUMENTS**

Administration of Injections Policy  
All other Infection Prevention and Control Policies  
Aseptic Non Touch Techniques policy  
Blood and Blood Components Transfusion Policy  
Catheterisation (for Adults) Policy  
Cleaning of Equipment and Decontamination Policy  
Enteral Feeding Policy  
Hand Hygiene Policy  
Infection Control Policy  
Learning development and Mandatory Training Policy  
Medical Devices Policy  
Medicines Policy  
Needlestick and contamination injury Policy  
Record Keeping and Records Management Policy  
Risk Management Policy and procedure  
Staff Mandatory Training Matrix (Training Needs Analysis)  
Untoward Event Reporting Policy and procedure

#### **15. APPENDICES**

Appendix A: - Cannula Care Record

<p><i>Please attach label or complete</i></p> <p>Surname:</p> <p>Forename:</p> <p>Date of Birth:</p> <p>Hospital No:</p>	<p>Somerset Partnership </p> <p>NHS Foundation Trust</p> <div style="background-color: black; color: white; padding: 10px; text-align: center;"> <p><b>Peripheral Cannula should be removed and replaced at 72 hours</b></p> <p><b>Always remove cannula as soon as possible if no longer required</b></p> </div>
--	--

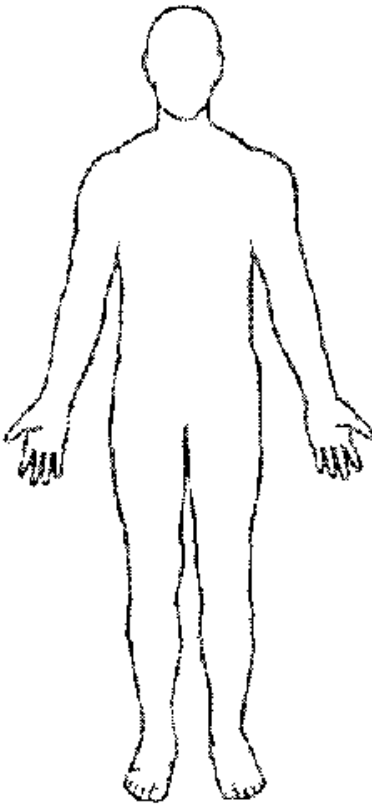
CANNULA ASSESSMENT TOOL		
Score	Indications	Action
<b>0</b>	<b>Patient comfortable Site appears healthy Infusion runs/flushes well</b>	<b>Document site as satisfactory &amp; continue observation</b>
<b>1</b>	<b>Slight pain, redness or swelling and/or slight resistance to infusion</b>	<b>Consider saline flush (if compatible) Assess whether prescribed drugs or fluids may cause damage Document condition of site and observe more frequently Be prepared to remove cannula</b>
<b>2</b>	<b>Pain, redness or swelling and/or inability to flush</b>	<b>Remove cannula Document condition of site and action taken Re-inspect and report after removal of cannula Involve pt/carer and doctor as appropriate</b>

CANNULA 1		Mark with an 'X' position of each cannula			
Insertion of Cannula	Cannula Record				
Date & Time of Insertion:	Site of Cannula:				
	Day	Date	Score	Initials	
Device Used:	1		Am		
			Pm		
Size:	2		Am		
			Pm		
	3		Am		
			Pm		

Inserted	4		Am		
			Pm		

**CANNULA 2**

Insertion of Cannula	<i>Cannula Record</i>				
Date & Time of Insertion:	<i>Site of Cannula:</i>				
	Day	Date	Score	Initials	
Device Used:	1		Am		
			Pm		
Size:	2		Am		
			Pm		
Inserted	3		Am		
			Pm		
Inserted	4		Am		
			Pm		




*Please attach label or complete*

Surname:

Forename:

Date of Birth:

Hospital No:

**Somerset Partnership** 

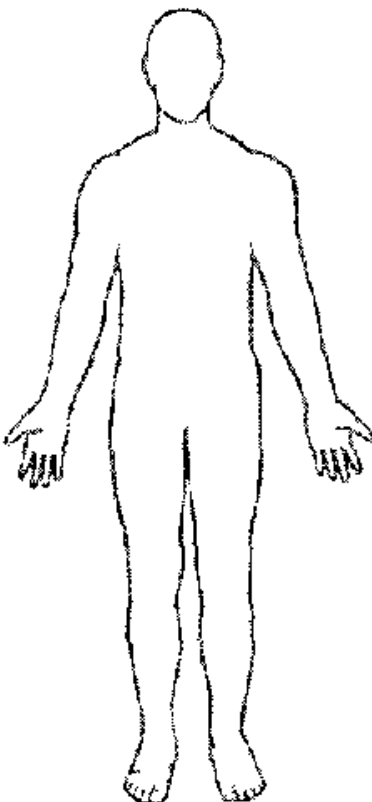
NHS Foundation Trust

**Peripheral Cannula should be removed and replaced at 72 hours**

**Always remove cannula as soon as possible if no longer required**

CANNULA ASSESSMENT TOOL		
Score	Indications	Action
<b>0</b>	<b>Patient comfortable Site appears healthy Infusion runs/flushes well</b>	<b>Document site as satisfactory &amp; continue observation</b>
<b>1</b>	<b>Slight pain, redness or</b>	<b>Consider saline flush (if compatible) Assess whether prescribed drugs or fluids may cause damage</b>

	swelling and/or slight resistance to infusion	Document condition of site and observe more frequently Be prepared to remove cannula
2	Pain, redness or swelling and/or inability to flush	Remove cannula Document condition of site and action taken Re-inspect and report after removal of cannula Involve pt/carer and doctor as appropriate

<b>CANNULA 1</b>					<p>Mark with an 'X' position of each cannula</p> 
Insertion of Cannula	<i>Cannula Record</i>				
Date & Time of Insertion:	<i>Site of Cannula:</i>				
	Day	Date	Score	Initials	
Device Used:	1		Am		
			Pm		
Size:	2		Am		
			Pm		
Inserted	3		Am		
			Pm		
	4		Am		
			Pm		
<b>CANNULA 2</b>					
Insertion of Cannula	<i>Cannula Record</i>				
Date & Time of Insertion:	<i>Site of Cannula:</i>				
	Day	Date	Score	Initials	
Device Used:	1		Am		
			Pm		
Size:	2		Am		
			Pm		
Inserted	3		Am		
			Pm		
	4		Am		
			Pm		