

Central Venous Catheter Care Pathway Insertion

WRITE OR ATTACH ADDRESSOGRAPH

Surname _____

Forenames _____

DOB dd / mm / yyyy Age _____

Hospital number _____

NHS number _____

Aim To ensure patient safety is maintained and best procedural practice is attained with the intention of minimising the occurrence of catheter related blood stream infections.

When Throughout all CVC placements, repositioning and maintenance.

By whom All healthcare professionals responsible for the insertion, on-going management and removal of CVCs.

SIGN IN

To be completed by the individual conducting the procedure prior to scrubbing

Confirm patient identity and procedure

Clinical setting Elective Emergency

Check consent Verbal Written

If no consent document best interest decision

Appropriate staff and equipment available:

Trained operator Supervised

Trained assistant present

ECG monitoring in place

All equipment available including ultrasound (if applicable)

Does the patient have a known allergy?

NO YES, specify _____

Hepatitis status known (for dialysis catheters)?

YES NO Please send serology

Platelets/Clotting results reviewed

YES Not available and emergency situation

Patient on blood thinning medication?

NO YES, specify _____

Need for platelet or FFP cover?

YES NO N/A

Is there a pacemaker or similar in situ? NO YES. If YES, discuss with consultant.

Confirm optimum insertion site selected (inspection and/or ultrasound). Explain rationale for site choice:

Patient positioned appropriately

TIME OUT

To be read out loud by the assistant before invasive part of procedure is commenced

Operator is wearing hat, gown, mask and gloves after scrubbing YES NO _____

Skin cleaned with 2% Chlorhexidine/70% alcohol, dried for 30 sec YES NO _____

Confirm: Sterile drapes in place US probe with sterile cover Appropriate size catheter available

SIGN OUT

To be read out loud by the assistant before anyone leaves the procedural area

Number of central packs used _____ **Note:** if >1 pack used, check for multiple guidewires

Guidewire(s) removed (should be witnessed by assistant) Stylet removed (for tunneled catheter)

Venous gas from proximal lumen All lumens aspirated and flushed

Caps/needle free connectors placed on all lumens Waveform of CVP trace on proximal lumen

Catheter secured with sutures through hub and movable fixation wing (if applicable)

Sterile transparent semi-permeable dressing applied & dated Operator disposed of all sharps safely

CXR requested: YES NOT applicable

PRINT NAME / SIGN / REG NO

Operator _____ Date _____

Assistant _____ Time _____

Supervisor (if present) _____ Location _____

CVC Procedure Summary

Catheter type

- 4 Lumen 5 Lumen Dialysis Trialysis
- PA Introducer PICC
- Other _____

Site RIGHT LEFT Tunneled

IJ SC Femoral Peripheral _____

Technique. Ultrasound Landmark

Local anaesthesia

Catheter Make

Number of needle passes _____

Length of catheter inserted _____ cm

Post Insertion blood gases pCO₂ _____ pO₂ _____ Saturation O₂ _____

Post Insertion CXR (if applicable) review _____

Complications / Comments _____

CVC Care Pathway Continuing Care

Shift Assessments

- **Assess continued need for CVC - remove if not needed**, after consultation with medical staff
- No routine replacement unless clinically indicated
- Dressing intact, if not replace aseptically - disinfect site with chlorhexidine 2% with 70% alcohol or routinely replace every 7 days
- Check all sutures are secure
- Check catheter for migration
- Transduce waveform on proximal lumen in critical care

Catheter Management

- Replace administration sets following the giving of blood or blood products
- Replace TPN and other lipid administration sets every 24 hours
- TPN use a labelled and dedicated lumen
- Replace all administration sets every 72 hours
- Replace multi-lumen connectors every 6 days. Try to coincide these changes with administration set changes
- All administration sets & multi-lumen connectors to be dated & labelled with colour coded drug labels
- Transducer lines and 0.9% Sodium Chloride 500ml bag to be dated and changed every 3 days
- Transducer pressure bag set at 300mmHg and check catheter patency
- Transducer to be zeroed once a shift

All Catheter Manipulations

- Hand hygiene prior
- Clean apron and clear pair of non-sterile gloves
- No touch clean technique
- Disinfect all ports and hubs with Chlorhexidine 2% with 70% alcohol wipes and allow to air dry for 30 seconds

Dressing Changes

Date	Reasons (Please state)	Signature	Reg No

CVC Assessment Tool

Visual Infusion Phlebitis Score -VIPs

Observations, signs and symptoms	Score	Action
IV site appears healthy. No pain.	0	No signs of phlebitis OBSERVE CATHETER
One of the following is evident: • Slight pain near IV site • Slight redness near IV site	1	Possible first signs of phlebitis OBSERVE CATHETER
Two of the following are evident: • Pain at IV site • Erythema • Swelling	2	Early stage of phlebitis LIAISE WITH MEDICAL TEAM CONSIDER REPLACING / RESITING CATHETER
All of the following signs are evident: • Pain along path of cannula • Erythema • Induration	3	Medium stage of phlebitis LIAISE WITH MEDICAL TEAM RESITE CATHETER CONSIDER TREATMENT
All of the following signs are evident and extensive: • Pain along path of cannula • Erythema • Induration • Palpable venous cord (if venous catheter) • Pus	4	Advanced stage of phlebitis / start of thrombophlebitis LIAISE WITH MEDICAL TEAM RESITE CATHETER INITIATE TREATMENT COMPLETE INCIDENT FORM
All of the following signs are evident and extensive: • All of the above PLUS • Pyrexia • Tissue damages	5	Advanced stage of thrombophlebitis LIAISE WITH MEDICAL TEAM INITIATE TREATMENT RESITE CATHETER COMPLETE INCIDENT FORM

VIP Score Chart

Record in each shift the VIPs and initial chart to verify compliance with care pathway

Does the patient still require a CVC?

		Insertion Day	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Date								
Day	Score	/	/	/	/	/	/	/
	Initial							
Night	Score	/	/	/	/	/	/	/
	Initial							
		Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14
Date								
Day	Score	/	/	/	/	/	/	/
	Initial							
Night	Score	/	/	/	/	/	/	/
	Initial							
		Day 15	Day 16	Day 17	Day 18	Day 19	Day 20	Day 21
Date								
Day	Score	/	/	/	/	/	/	/
	Initial							
Night	Score	/	/	/	/	/	/	/
	Initial							
		Day 22	Day 23	Day 24	Day 25	Day 26	Day 27	Day 28
Date								
Day	Score	/	/	/	/	/	/	/
	Initial							
Night	Score	/	/	/	/	/	/	/
	Initial							

CVC Care Pathway Catheter Removal

Date	Requested time for catheter removal	Actual time catheter removed	Number of days in situ

Was the catheter removed within 2-4 hours of decision? <input type="checkbox"/> Yes <input type="checkbox"/> No	Catheter infected at any time? <input type="checkbox"/> Yes <input type="checkbox"/> No	Reason for removal
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Care Management on Removal

Requirements	YES	NO	If answer NO, please give reason
Hand Hygiene	<input type="checkbox"/>	<input type="checkbox"/>	_____
Dressing Pack	<input type="checkbox"/>	<input type="checkbox"/>	_____
Aseptic Technique	<input type="checkbox"/>	<input type="checkbox"/>	_____
Chlorhexidine 2% with 70% Alcohol	<input type="checkbox"/>	<input type="checkbox"/>	_____
Patient lying supine	<input type="checkbox"/>	<input type="checkbox"/>	_____
Slowly pull maintaining gentle firm traction	<input type="checkbox"/>	<input type="checkbox"/>	_____
Direct pressure 3-4 minutes	<input type="checkbox"/>	<input type="checkbox"/>	_____
Occlusive dressing	<input type="checkbox"/>	<input type="checkbox"/>	_____
Catheter integrity should be checked, and length measured to ensure full removal	<input type="checkbox"/>	<input type="checkbox"/>	_____
Recheck site after 5 mins	<input type="checkbox"/>	<input type="checkbox"/>	_____

Catheter infection suspected YES NO

Site Swab sent (if clinically indicated) YES NO

Complications / Comments

PRINT NAME / SIGN / REG NO

Removed by _____ Date _____

If Catheter replaced – please commence a new CVC Care Pathway

This Care Pathway is compliant with:

- South Tees NHSFT IPC Policy HIC 20
- National Evidence Based Guidelines for preventing HAI's in NHS Hospitals England (EPIC2), Journal of Hospital Infection, Feb 2007
- Matching Michigan. A 2-year stepped interventional programme to minimise CVC blood stream infections in Intensive Care Units in England. BMJ Quality & Safety, September 2012
- National Safety Standards for Invasive Procedures, NHS England patient Safety Domain, September 2015