

Bundle for preventing infection when inserting and maintaining a Central Venous Catheter (CVC)

Statement: Central vascular catheters can cause catheter related blood stream infections by enabling microorganisms to gain direct access to the blood stream. Healthcare workers, therefore, have a duty to patients to optimise central vascular catheter care and to ensure that central vascular catheter care does not cause the patients harm.

Objective: To optimise central vascular catheter insertion and thereby minimise the risk of bloodstream infection
To be able to demonstrate quality peripheral vascular catheter care in our ward

It should be decided locally how to implement this bundle. Consideration should be given to SPSP PDSA testing in addition to when it is completed, how often it is completed, who completes it and how the data are collected and outcomes fed back.

Ward:	Date:	Staff name:			Patient (Pt) 1		Example	
Inserting a Central Venous Catheter								
1. Surgical scrub was performed immediately before donning maximal sterile barrier precautions (i.e. headwear, mask, sterile gown and sterile gloves)			Yes	No	Yes	No	Yes	No
2. A sterile body drape was applied before inserting the CVC and aseptic technique was maintained throughout the insertion procedure			Yes	No	Yes	No	Yes	No
3. A single-use 2% chlorhexidine in 70% isopropyl alcohol was used for skin preparation of the site and allowed to dry			Yes	No	Yes	No	Yes	No
4. The subclavian site was used (if possible) or internal jugular vein			Yes	No	Yes	No	Yes	No
5. The CVC site was covered with a sterile transparent semi permeable dressing.			Yes	No	Yes	No	Yes	No

Action Plan (complete when **not** all criteria met)

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Ward:	Date:	Staff name:											
Maintaining an Inserted Central Venous Catheter		Pt 1		Pt 2		Pt 3		Pt 4		Pt 5		Example	
1. The clinical need for the CVC has been reviewed and recorded today		Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
2. The CVC dressing is intact and has been changed in the last seven days		Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
3. Hand hygiene was performed immediately before accessing the line or site		Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
4. A single-use 2% chlorhexidine in 70% alcohol was used to clean the insertion site during dressing changes		Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
5. The access hub has been cleaned with an antiseptic containing 70% isopropyl alcohol before accessing rub the access hub for at least 15 seconds ("scrub the hub")		Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No

Action Plan (complete when **not** all criteria met)

Summary Table of Central Vascular Catheter for insertion bundle	
Percentage compliance = $\frac{\text{total number of criteria achieved}}{\text{total number of criteria}} \times 100$	Example: $\frac{3}{5} \times 100 = 60\%$

	Summary Table of Central Vascular Catheter maintenance bundle	Total	Calculation for percentage compliance for each criteria	Percentage compliance
A	Total number			
B	Total number of patients that the clinical need for the CVC has been reviewed and recorded today		$\frac{\text{Total for B}}{\text{Total for A}} \times 100$	
C	Total number of patients whose CVC dressing is intact and has been changed in the last seven days		$\frac{\text{Total for C}}{\text{Total for A}} \times 100$	
D	Total number of patients where hand hygiene was performed immediately before accessing the line or site		$\frac{\text{Total for D}}{\text{Total for A}} \times 100$	
E	Total number of patients where single-use 2% chlorhexidine in 70% alcohol was used to clean the insertion site during dressing changes		$\frac{\text{Total for E}}{\text{Total for A}} \times 100$	
F	Total number of patients where the access hub has been cleaned with a single-use antiseptic containing 70% isopropyl alcohol before accessing rub the access hub for at least 15 seconds ("scrub the hub")		$\frac{\text{Total for F}}{\text{Total for A}} \times 100$	

Summary Table of Central Vascular Catheter maintenance bundle	
Total Percentage compliance = $\frac{\text{total number of criteria achieved}}{\text{total number of criteria}} \times 100$	Example: For 5 patients (all criteria met) $\frac{25}{25} \times 100 = 100\%$ For 2 patients (3 criteria not met) $\frac{7}{10} \times 100 = 75\%$