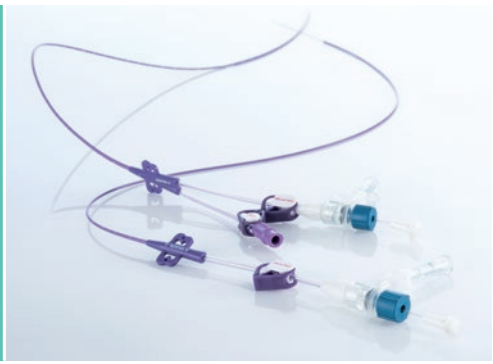
Celsite® PICC-Cel

Nursing guidelines for maintenance
and use of PICC-Lines



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SHARING EXPERTISE

Contents

Background

Product Description

Celsite® PICC-Cel is a Peripherally Inserted Central Catheter (PICC). A PICC is inserted via a peripheral vein and is centrally placed in the Superior Vena Cava. The correct catheter tip position is the caudal third of the Superior Vena Cava at the junction to the right atrium.

Celsite® PICC-Cel is made of polyurethane with a reversed taper design. The catheter is marked every centimeter and the catheter size (F) is indicated on the fixation hub. Celsite® PICC-Cel is MR Safe and radio-opaque.

Celsite® PICC-Cel are compatible with different securement devices, but use of the specially designed Grip-Lok Securement Device is recommended.

Polyurethane Catheter

- Marked every cm from 0 at the hub
- MR Safe
- Radiopaque

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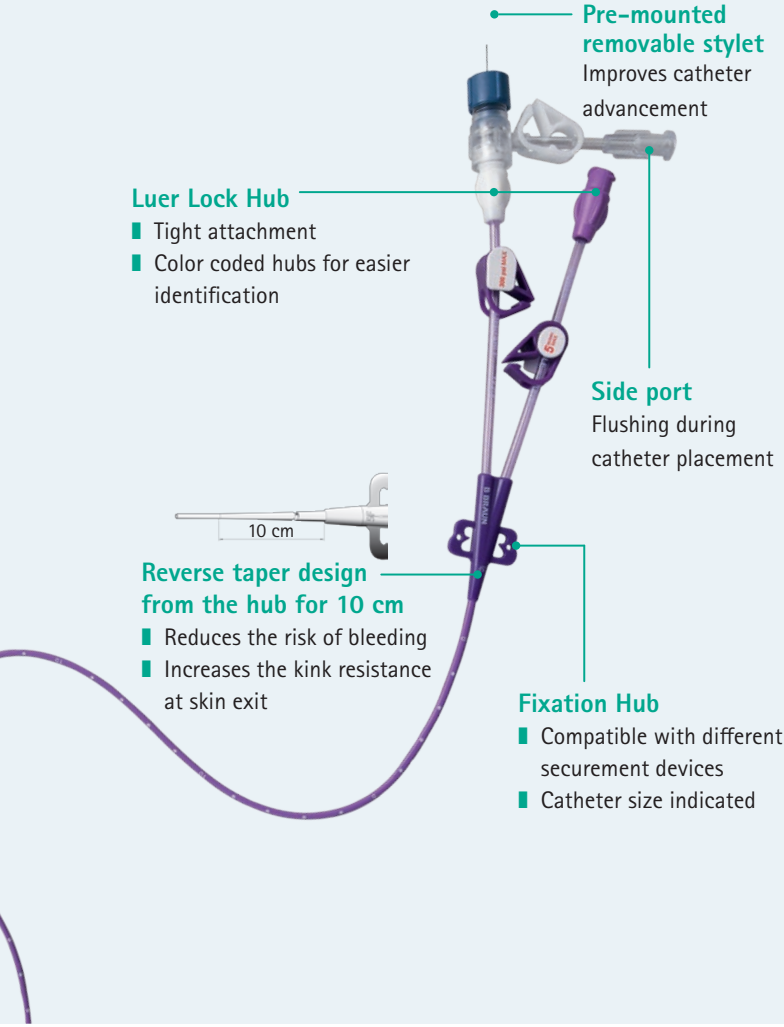

Pre-mounted removable stylet
Improves catheter advancement

Luer Lock Hub
- Tight attachment
- Color coded hubs for easier identification

Side port
Flushing during catheter placement

Reverse taper design from the hub for 10 cm
- Reduces the risk of bleeding
- Increases the kink resistance at skin exit

Fixation Hub
- Compatible with different securement devices
- Catheter size indicated

Background

Indications

PICC-Lines are used when a long term central venous access is needed. PICC-Lines can be placed for up to 3 month.

PICC-Lines are indicated for, but not limitated to, the following intravenous therapies:

- Antibiotic therapy
- Antiviral therapy
- Total Parenteral Nutrition (TPN)
- Chemotherapy
- Blood Sampling
- Blood Transfusion

Celsite® PICC-Cel may also be used for central venous pressure monitoring (see E Central Venous Pressure (CVP) Monitoring) and high pressure injections up to 300 psi (20.68 bar) (see D High Flow Rate/ High Pressure Injections).

A

Advantages

Celsite® PICC-Cel allows quick, easy and painless vein access for a longer period of time and the veins are preserved. The implantation procedure is less invasive than central venous puncture. Celiste® PICC-Cel is easy to maintain and is adapted to out-patient treatment.

The peripheral insertion site of Celsite® PICC-Cel is comfortable for the patient in their daily life, the patient can dress normally and can also take shower with specific wound dressings.

Background

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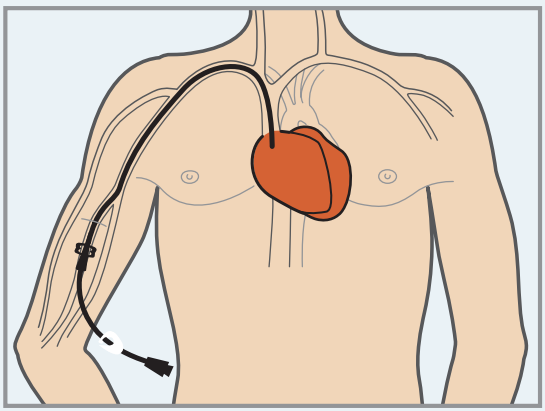
Implantation Techniques



After local anesthesia a peripheral vein (usually Basilic, Cephalic or Brachical vein) is punctured. Vein puncture using ultrasound guidance is recommended. The catheter is inserted and is advanced to its final position in the Superior Vena Cava at the cavo-atrial junction. The conventional landmark-technique, intra-operative fluoroscopy or the intra-atrial ECG method can be used to place the catheter tip correctly. It is important to trim the catheter to its correct length before insertion into the vein. Anatomical landmarks and the tape measure can be used to facilitate this procedure.

The catheter is fixed at the puncturing site by a fixation device. It is not recommended to suture the catheter to the skin. The Celsite® PICC-Cel Grip-Lok® Securement Device is recommended for the fixation of a Celsite® PICC-Cel. This offers the patient high comfort and easy handling for the medical staff.

The fixation device should be covered with a sterile and transparent dressing.

Usage

B

Hygiene precautions

Rigorous aseptic rules must be followed according to local protocols before manipulating the PICC-Line. Failure to respect these rules can lead to infection, dysfunction and other complications.

It is of primary importance that the nursing staff:

- put on a surgical mask
- wash hands with an antiseptic soap
- put on sterile gloves before starting any manipulation.

Hygiene precautions

B

Preparation and Injection

- Ensure that there is no kinking or looping of the catheter along the vein.
- Inspect the skin over the puncture site and along the catheter to make sure there is no redness, oedema, ulceration or discharge.
- Always verify that the catheter lumen(s) is (are) functional by aspirating 2 mL of blood and injecting 5 mL of sodium chloride (NaCl) 0.9% before attempting to start an infusion.
- If resistance is encountered to aspiration or injection, the lumen of the catheter may be partially or completely occluded. Attempt to inject a few mL of sodium chloride (NaCl)-0.9% into the catheter. If resistance to injection continues or if swelling occurs along the catheter, device malfunction should be suspected.
- In case of obstruction, never try to clear the blockage using a small syringe or fluid under high pressure, this carries the risk of catheter fracture and migration.
- Stop injection immediately if any pain or swelling is noted or if blood return is absent.
- Do not use sharp instruments close to the catheter or scissors to remove dressings. Properly dispose of sharps in sharps containers in accordance to local protocols.
- Use only the in-line clamps provided.
- Catheter tip position should be monitored routinely according to local protocols.

Maintenance

B

Rinsing and Heparinisation

It is very important to rinse the catheter before each treatment, between different infusions and after each treatment. The catheter should be rinsed with a minimum of 10ml of normal sodium chloride (NaCl) 0.9%.

Heparinisation with heparinised sodium chloride (NaCl) 0.9% can follow if required by local protocols. Heparin protocol example: For a solution 1000 I.U./5 ml use 0.2 ml of pure heparin with 5 ml of sodium chloride (NaCl) 0.9%.

When heparinised sodium chloride (NaCl) 0.9% is used, the system should be rinsed with 10 ml of sodium chloride (NaCl) 0.9% alone before rinsing with heparinised sodium chloride (NaCl) 0.9%.

Some drugs react with heparin and may result in blockage of the catheter due to precipitate formation . Follow local protocols for flushing frequency and heparin concentration if used. Special care should be taken with drugs carrying a higher risk of precipitation with other drugs and after blood sampling or transfusion to reduce the risk of catheter occlusion.

Failure to maintain the system may result in occlusion of the catheter.

C

Dressing

It is important to check under the dressing for accumulation of blood, fluid or moisture every 24 hours. An occlusive dressing should cover the insertion site at all times. A transparent dressing (e.g. B. Braun Askina® Derm) will allow easy inspection of the insertion site.

Please observe the following steps:

- Check the dressing regularly for cleanness.
- Change the dressing every seven days or according to local protocols or if the dressing becomes soiled, wet or non-occlusive.

Dressing Change

1. Preparation
   - Disinfect the work surface
   - Collect all needed materials and place them on a sterile drape

2. Hygienic hand disinfection

3. Change of Dressing
   - Put on sterile gloves
   - Change the dressing

Check catheter position during the dressing change by checking the external length of the catheter. The external length must remain the same from insertion until retrieval. Catheter tip position and patency should be checked regularly.

When the Caresite® needless access device is used it must be changed at least every 7 days or according to local protocols.

Maintenance

C

Catheter Securement Device: GRIP-LOK® CS

Celsite® PICC-Cel is indicated to be used with Celsite® Grip-Lok® CS Securement Device.
Celsite® Grip-Lok® CS is very flexible, has a low profile and can be changed quickly and simply.

The following steps for fixation of the catheter with the Celsite® Grip-Lok® CS should be respected:

1. Select the area for the placement of the GRIP-LOK® CS and prepare the skin according to the local protocol for dressing application. The skin must be clean and dry.

2. Open the top flap and slide the GRIP-LOK® CS under the catheter hub centering it in the exposed adhesive area (Fig. 1).

3. Pull the paper backing from one side of the GRIP-LOK® CS, then the other, to secure in the desired position on the skin (Fig. 2).

4. Remove the interior liner to expose the adhesive area (Fig. 3).

5. Secure top flap over the catheter. Apply firm pressure on and around the adhesive.

The use of an alcohol swab will allow easy removal of the Grip-Lok® CS from the skin.

Celsite® Grip-Lok® CS is for single use only. Re-use of this device may change its mechanical or biological features and may cause device failure, allergic reactions or bacterial infections.

Replace the securement device if soiled or wet.

Warning:
Always use the GRIP-LOK® CS system to secure the catheter. Do not suture the catheter directly on the arm to secure the device.

Celsite® PICC-Cel may also be used with compatible fixation devices which are indicated for PICC securement.

Catheter removal

- Remove the dressing.
- Hold the catheter near the insertion site and pull slowly. Do not use excessive force. Do not pull against resistance.
- If resistance is felt, apply a warm compress, wait 20-30 minutes and attempt removal again.
- Verify that the length of catheter removed corresponds to the length inserted (noted in patient's file).
- Place a dressing over the exit site to avoid bleeding after catheter removal.
- Handle and dispose of the removed device in accordance with local infection control standards to avoid the risk of exposure to contaminated blood.

High Flow Rate/ High Pressure Injections

D

Celsite® PICC-Cel may be used for Contrast Enhanced Computerised Tomography (CECT) using high pressure injection.

- Always verify that the catheter is functional by aspirating 2 mL of blood and injecting 5 mL of sodium chloride (NaCl) 0.9% into the catheter before attempting to start an injection.
- Do not exceed the recommended pressure and flow rate as system failure may occur.
- Contrast media should be warmed to 37°C (98.6°F) according to the drug manufacturer´s recommendations. Failure to follow this recommendation will result in lower flow rates up to 50 % and/ or catheter or injection system failure.
- Depending on the technical characteristics of the injection system, the target flow rate might not be attained.
- Flush the catheter with at least 10 mL of soidum chloride (NaCl) 0.9% before and after using the catheter for CECT, followed by usual rinsing procedures.

Celsite® PICC-Cel has the following flow rates for a maximum pressure injection of about 300 psi (20.68 bar):

Portfolio

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Celsite® PICC-Cel Single Lumen:

Size	Reference Number	Flow Rate
4F	4434080	5 ml / sec
	4434081	
	4434082	
	4434083	
5F	4434084	
	4434085	
	4434086	
	4434087	

Celsite® PICC-Cel Double Lumen:

Size	Reference Number	Flow Rate
5F	4434088	4 ml / sec
	4434089	
	4434090	
	4434091	
5F	4434096	5 ml / sec
	4434097	
	4434098	
	4434099	
6F	4434092	5 ml / sec
	4434093	
	4434094	
	4434095	

CENTRAL VENOUS PRESSURE (CVP) MONITORING

F

Celsite® PICC-Cel can be used for central venous pressure (CVP) monitoring.

Prior to conducting central venous pressure monitoring:

- Ensure proper positioning of the catheter tip
- Flush catheter with sodium chloride (NaCl) 0.9%
- Ensure that the pressure transducer is at the level of the right atrium and that the monitoring device is correctly calibrated.

Use your institution's protocols for central venous pressure monitoring procedures.

Notes

Notes

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