Totally implantable central venous access ports: maintenance

The procedures described in this fact sheet are only to be performed by competent personnel and trainees supervised by competent personnel, and in conjunction with local procedures.

Post-insertion care

- Post-insertion care for implantable devices is required only until the incision has healed.
- Care depends in part on the closure used:
  - If external sutures are placed, the incision should be kept dry and covered for as long as two weeks or until the sutures are removed (usually 7-10 days).
  - If internal sutures or surgical adhesive (glue) are used to close the skin, the incision can get wet the next day. However, it is generally best to keep the incision covered for one week if no external sutures have been used.

Dressing

Dressing specification options

<table>
<thead>
<tr>
<th>Dressing type</th>
<th>Replacement interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transparent, semi-permeable, self-adhesive polyurethane</td>
<td>Weekly*</td>
</tr>
<tr>
<td>Gauze (only if above is contraindicated)</td>
<td>Second daily*</td>
</tr>
</tbody>
</table>

*All dressings should be replaced routinely as well as when the dressing becomes damp, loosened, no longer occlusive or adherent, soiled, if there is evidence of inflammation, or excessive accumulation of fluid. Manufacturer’s recommendations should be followed.

Aseptic technique

- Hand hygiene
- Sterile dressing pack
- Sterile drape
- Sterile gloves
- Environmental control (pull curtains)

Sutures

- Suture at insertion site is usually removed at 7-10 days.
- Suture at exit site are usually removed after three weeks.

Skin prep for dressing

- 2% alcoholic chlorhexidine, or 10% povidone iodine with 70% alcohol.
- Cleanse the area (the size of the final dressing) around the catheter including under the needle if insitu.
- Cleanse vigorously for at least 30 seconds moving in concentric circles from the site outward. Repeat this step a total of three times using a new swab for each application. Allow to air dry.
Accessing the port

**Personal protective equipment (PPE)**
- Protective eyewear/face shield
- Apron

**Antiseptic**
- 2% alcoholic chlorhexidine

**Aseptic technique**
- Hand hygiene
- Sterile dressing pack
- Sterile drape
- Sterile gloves
- Environmental control (pull curtains)

**Accessing ports**
- Only a non-coring (Huber) needle should be used to access implanted ports.
- Use a new needle for each access attempt.
- Needles should be changed every seven days and as necessary.
- Rotating insertion sites reduces risk of skin breakdown and pocket infection.

1. Position the patient in a supine position.
2. Routine hand hygiene.
3. Palpate the port to determine site of needle placement.
4. Perform routine hand hygiene. Set up aseptic field and equipment.
5. Perform clinical hand hygiene and don PPE.
6. Disinfect needle insertion site in a 4cm radius. Repeat a total of three times using new swabs. Allow to air dry.
7. Attach extension set to access needle and prime.
8. Cannulate the port with the smallest size non-coring needle that can accommodate the prescribed therapy.
9. Aspirate blood from the port to verify correct needle placement.
10. Cover site with a sterile semi-permeable dressing (sterile gauze may be used under the dressing to support the needle at a 90 degree angle).

**Port review**

<table>
<thead>
<tr>
<th>Assess each shift for:</th>
<th>Signs of systemic infection:</th>
<th>Occlusion/patency.</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Insertion site:</td>
<td>- Signs of systemic infection:</td>
<td>- Occlusion/patency.</td>
</tr>
<tr>
<td>o Erythema</td>
<td>o Rigor</td>
<td></td>
</tr>
<tr>
<td>o Tenderness</td>
<td>o Fever</td>
<td></td>
</tr>
<tr>
<td>o Swelling</td>
<td>o Tachycardia</td>
<td></td>
</tr>
<tr>
<td>o Pain</td>
<td>o Hypotension</td>
<td></td>
</tr>
<tr>
<td>o Palpable venous cord</td>
<td>o Malaise</td>
<td></td>
</tr>
<tr>
<td>o Purulent discharge.</td>
<td>o Nausea/vomiting.</td>
<td></td>
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</tbody>
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