

Loddon Mallee SLE project

Vascular access device Setup Procedure

Created by: Therese Worme

Subject:

PICC Lines & Port-a-Cath's

Simulated learning education practice

- Port-a-cath : Access, Deaccess, Infusion, Blood sampling & Trouble shooting
- PICC line: Access, Deaccess, Removal & Dressing

Station 1

Simulators required: Peter PICC x2

Equipment attached to task trainer:

PICC line with needless injection cap attached, with clear tegaderm dressing. Reservoir bag filled with blood.

Equipment required on a trolley (same for both stations)

- Basic dressing packs
- Normal saline for irrigation (30ml sachets)
- Normal saline injection 10mls
- Waste bags
- Op-site dressing (Tegaderm if op-site not available)
- Large & small Tegaderm
- 10 ml syringes luer lock
- Positive pressure valves
- Chlorhexidine 0.5% in Alcohol 70% solution
- Sterile gloves (sizes 7 & 7.5)
- Examination gloves (large)
- Needleless injection cap(s)
- Personal protective equipment (gown and eyewear)
- Non coring access needles 19g & 22g
- Sterile gauze pad(s)
- Blood tubes (various)
- 1 x 50 IU heparinised saline in 5mL (Make up with stickers in 5ml syringes)
- 3way tap
- Bluey's
- Jugs to empty blood
- Sharps container
- Mock blood bags for infusion
- 100ml N/Saline bags with Intragam stickers attached
- Giving set (free line)
- Vacutainer's and access devices

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Station 2

Simulators required: Chester chest x2

Equipment attached to task trainer

Port-a-Cath, Reservoir bag filled with blood on one only.

Lesson Plan –Port-a-Cath

10-20 min

Sign in

Introduce self and team for day's Sim activities

Introduction to SLE project

Introduction to session

45 -60mins

Introduction to Port-a-Cath begin with short PowerPoint

Demonstrate access of port-a-cath (Technician to give protocol handouts from eviQ for portacath)

- Access through means of aseptic technique
- Secure with sterile transparent dressing
- Connection of positive valve and flushing using pulsatile technique
- Flush with N/saline and 10 ml luer lock syringe
- Connection of line and infusion of blood
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Demonstrate Infusion port-a-cath (Technician to give protocol handouts from eviQ for infucion including intragam)

- Connect Intragam

Blood sampling from port-a-cath (Technician to give protocol handouts from eviQ for blood sampling)

- Discard first 5ml
- Always use a 10 ml syringe

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60 mins Participant practice

Practice with Chester chest

- Recap skills to practice
- Accessing, deaccessing, infusing, & blood sampling

Debrief

Lesson plan PICC line

45 -60mins

Introduction to PICC lines short PowerPoint

Demonstrate PICC dressing (Technician to hand out eviQ protocols for this)

- Use aseptic technique sterile glove procedure
- Remove old dressing moving in direction 'up patients are to avoid displacement of line
- Discuss changing of dressings, 7/7 for normal change, with gauze under occlusive dressing change 24-48 hourly

Demonstrate PICC accessing

- Clean between the cap and line connection with 2% chlorhexidine gluconate v/v 70% isopropyl alcohol-impregnated swab for 60 seconds using vigorous friction

Demonstrate PICC deaccessing (Technician to hand out eviQ protocols for this)

- Clean between the cap and line connection with 2% chlorhexidine gluconate v/v 70% isopropyl alcohol-impregnated swab for 60 seconds using vigorous friction, flush the lumen with 10 to 20mL of sodium chloride 0.9%.
- Flushing should be performed using a pulsatile action to create a turbulent flow to clear the catheter.
- Closed end catheters do not require heparin locking.
- For open ended catheters instil 5mL of heparinised saline using pulsatile action:
 - if using a non valved or negative pressure cap instil 1mL at a time and clamp while instilling the last 0.5mL.
 - if using a positive pressure or neutral pressure cap do not clamp prior to removing the syringe.

Demonstrate blood sampling (Technician to hand out eviQ protocols for this)

- Connect the vacutainer system, open clamp and insert blood tube into the vacutainer, allow the tube to fill and discard.
- If taking blood cultures these must be taken first. Do not discard the first 5 to 10 mL.

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- If unable to get blood return reposition the patient and ask the patient to take a deep breath hold it or to cough.
 - flush PICC with 10 to 20mL of sodium chloride 0.9% using a push pull action
 - Attempt to aspirate blood again.
 - If unable to get blood a senior nurse or medical officer review is required.
- Flushing is the same

60mins-Practice

Debrief

Close with feedback/evaluation forms

Key reference material: <https://www.eviq.org.au/Home.aspx>