

## Queensland Paediatric Emergency Care

## Skill Sheets

# Accessing a Totally Implanted Venous Port Device (TIVPD)

TIVPDs or “ports” are most commonly used for children who require long term intravenous therapy, avoiding the need for frequent cannulation. You must follow your local policy regarding whether accessing a TIVPD is within your scope of practice in your workplace. Most facilities that commonly see patients with ports will have a Central Venous Access Device (CVAD) learning package. See your educator for more information.

1

## PREPARE

Ask their preferences for port access and inquire if additional people are required. Consider topical anaesthetic if immediate access not required.



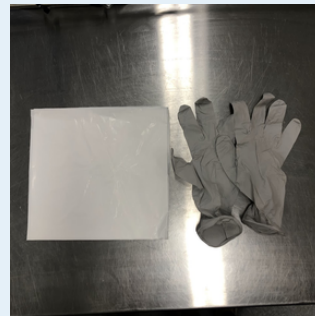
2

Attend to hand hygiene.



3

Don plastic apron and gloves.



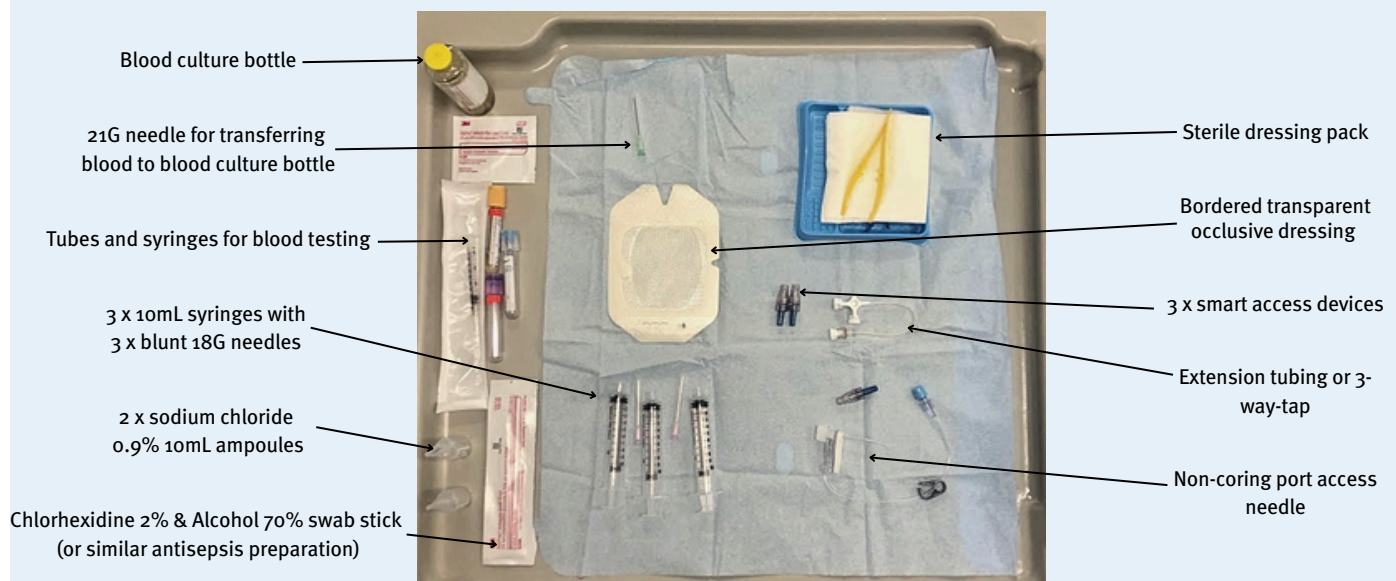
4

Clean top of trolley with 70% alcohol wipes. If visibly soiled use detergent wipe first.



5

Open equipment whilst maintaining ANTT® principles. Remember to swab the top of the blood culture bottle before use.



## Tips for equipment gathering

- Ask the patient or their carer which size and brand of needle is usually used when accessing the port. If unknown, review the patient chart for details of the last access.
- Check for allergies of both the cleansing solution and dressings.
- If a child has had a reaction to the Chlorhexidine 2% & Alcohol solution 70%, 10% Povidine-Iodine may be used, but does require a 5 minute drying time.

6

Perform hand hygiene. Don clean non-sterile gloves from dedicated clean ANTT glove box.



7

Prepare the patient by exposing the port site. Be sure to remove topical anaesthetic at this stage.



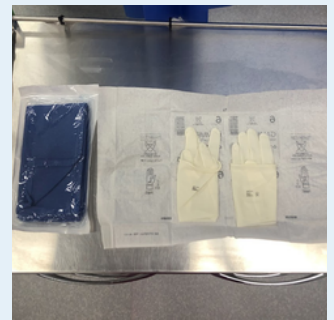
8

Remove and dispose of gloves. Perform hand hygiene.



9

Gather sterile gloves and towel and place prepared on another clean surface.



10

Perform surgical handwash. Dry hands with sterile towel.



11

Don sterile gloves.



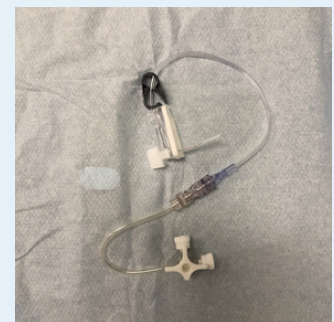
12

Assemble equipment in sterile field. Ensure that all equipment will be easily accessible during procedure.



13

Be sure to connect the port needle to the extension using a smartsite access device.



## Tip for assembling equipment in sterile field

- You may need a colleague to hold the sodium chloride 0.9% vials whilst you prepare your flushes.



### ALERT

Syringes of LESS than 10 mL should NEVER be used to INJECT into a CVAD.

Syringes of MORE than 10 mL should NEVER be used to WITHDRAW from a CVAD.





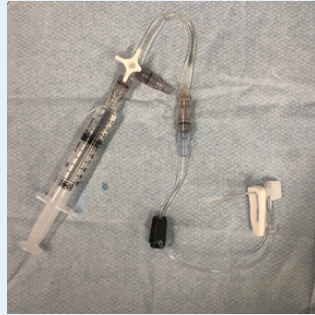
14

Attach two further smart site access devices to the access points on the extension or 3-way-tap.



15

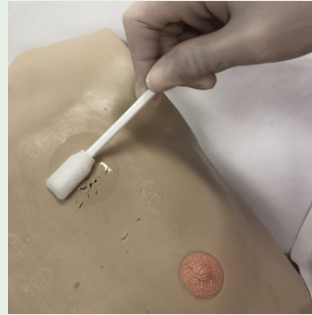
Ensure that this tubing is primed with 0.9% sodium chloride. Leave the syringe attached with the remainder of the 0.9% sodium chloride.



16

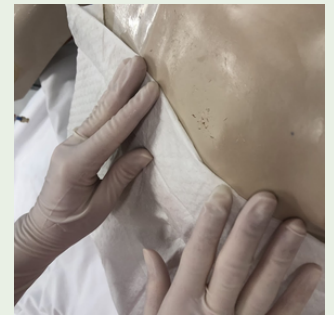
## PROCEDURE

Vigorously clean the site with the chlorhexidine and alcohol stick in an up-and-down motion, moving from the centre of the port outwards.



17

Allow the skin to air dry completely. Use sterile towel as an extension of sterile field.



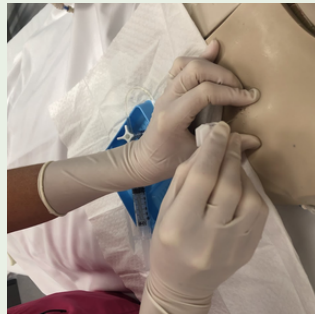
18

Using non-dominant hand, palpate the port and hold firm on the outer edges, stretching the skin.



19

Using dominant hand, insert port needle into centre of port site. If port has a safety device clip, remove this now.



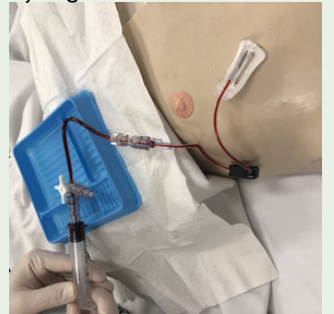
20

Aspirate with attached 10mL syringe until flashback is seen. Discard locking solution.



21

If bloods are required, collect using a 10mL syringe. Be sure to clamp the line when disconnecting and reconnecting the new syringe.



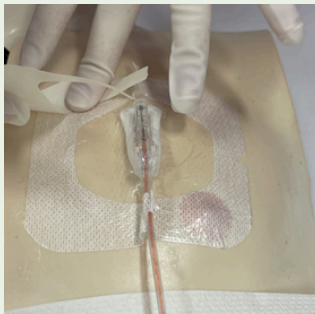
22

Once bloods are collected, use a 10mL syringe (or larger) with 0.9% sodium chloride to flush the line in a pulsatile manner.



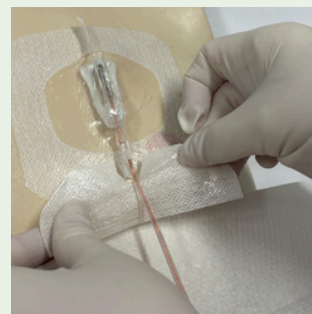
23

Apply the dressing over the port needle, taking care to smooth the dressing down the sides of the port to preventing "tenting".



24

Apply closure portion of the dressing.



25

Dispose of waste according to your local policy. Attend to hand hygiene.



## Documentation

- Document that port has been needled.
- Include: needle size, the site condition, device patency, dressing type, locking solution (if locked) number of attempts.
- Include any techniques that were used for reassurance or any patient preferences that would be helpful for future needling attempts.

## Considerations

- Check for allergies to adhesives and cleaning solutions prior to commencing
- Consider the need for heparin locking. If heparin locking is required, refer to your local policy and ensure that you have a valid medication order.
- In patients who are restless, the port dressing may be applied prior to blood sampling.

## For further information:

[Procedure: Totally Implanted Venous Port Device \(TIVPD\) Needling](#)

Video: Needling your patient's port [Part 1](#) and [Part 2](#)

## References:

Simulation Training Optimising Resuscitation for Kids (STORK) & Vascular Assessment and Management Service (VAMS), Queensland Children's Hospital and Health Service. (May 6, 2020). Needling your patient's port: Part 1. Accessed January 2025 from <https://vimeo.com/715866096/6c727153ec>.

Simulation Training Optimising Resuscitation for Kids (STORK) & Vascular Assessment and Management Service (VAMS), Queensland Children's Hospital and Health Service. (April 28, 2020). Needling your patient's port: Part 2. Accessed January 2025 from <https://vimeo.com/715865084/b495b1d3a6>.

Vascular Assessment and Management Service (VAMS), Queensland Children's Hospital and Health Service. June 14, 2024. Work Instruction: Totally Implanted Venous Port Device (TIVPD) Needling. Queensland Health Intranet. Accessed January 2025 from [https://qheps.health.qld.gov.au/\\_data/assets/pdf\\_file/0034/2227795/wi-03460.pdf](https://qheps.health.qld.gov.au/_data/assets/pdf_file/0034/2227795/wi-03460.pdf).

**This Queensland Paediatric Emergency Skill Sheet was developed and revised  
by the Emergency Care of Children working group.  
Initial work was funded by the Queensland Emergency Department Strategic Advisory Panel.**

## Skill Sheet Legal Disclaimer

The information contained in these Queensland Paediatric Emergency Care skill sheets is for information purposes only. It was developed to inform emergency nursing care, but can also be applied by other clinicians acting within their scope of practice. The information has been prepared using a multidisciplinary approach with reference to the best information and evidence available at the time of preparation. No representation, warranty or assurance is given that the information is entirely complete, current, or accurate in every respect. The skill sheets are not a substitute for clinical judgement, knowledge and expertise, or medical advice. Variation from the skill sheets, taking into account individual circumstances may be appropriate. This does not address all elements of standard practice and accepts that individual clinicians are responsible for the following:

- Providing care within the context of locally available resources, expertise, and scope of practice.
- Supporting consumer rights and informed decision making in partnership with healthcare practitioners including the right to decline intervention or ongoing management.

- Advising consumers of their choices in an environment that is culturally appropriate and which enables comfortable and confidential discussion. This includes the use of interpreter services where necessary.
- Ensuring informed consent is obtained prior to delivering care.
- Meeting all legislative requirements and professional standards.
- Applying standard precautions, and additional precautions as necessary, when delivering care.
- Documenting all care in accordance with mandatory and local requirements.

Children's Health Queensland disclaims, to the maximum extent permitted by law, all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages and costs incurred for any reason associated with the use of this skill sheet, including the materials within or referred to throughout this document being in any way inaccurate, out of context, incomplete or unavailable.

