Port (Implantable Venous Access Device or IVAD)

Your doctor may have talked to you about using a device called a ‘port’. This sheet explains how and why they’re used.

What is a port and how is it inserted?

A port is a type of central venous access device that lies completely underneath the skin. It has two main parts. There is an injection chamber that is within a solid case of titanium or plastic which is covered by a special thick silicone membrane or top that seals itself after injection. Attached to the injection chamber is a narrow soft tube called a catheter. This catheter is placed into one of the large veins of the neck or chest, with the catheter tip ending in a big vein close to the heart.

The two incisions are stitched closed. In older children there may be only one incision site. Rarely, the port may be inserted into another area, such as the groin, or the inside of the upper arm. The surgeon will discuss the site of the chamber prior to the operation.

Why would my child need a port?

A port may be inserted for:

- certain medications
- small/difficult veins
- long term treatment

Is it painful?

- Local anaesthetic may be injected into the surrounding area to numb the area and reduce pain.
- Oral pain relief medicine may be needed for a short period after insertion, usually not lasting more than 4-5 days.
- For about a week after insertion, the two incision sites where the port was inserted will be a little sore. Once these have healed, your child should not feel any pain. If there is still pain after a week, please speak to your doctor or nurse.

Potential problems with insertion

Pneumothorax - very rarely the lung may be punctured during the insertion. This may require the placement of a second tube or drain into the chest cavity to drain the air. The drain will need to stay in until the leak seals, which can take a few days or occasionally longer.
Very rarely there can be serious complications. These can be life-threatening.

- The catheter could damage or puncture the walls of the blood vessels or of the heart. Fluid from the catheter or blood could collect around the heart (This is called cardiac tamponade) or in the chest (this is called haemothorax).
- If either of these things happen, emergency treatment to drain the fluid or blood and fix the hole may be required.

How is the port accessed?

A port is accessed using a special needle called a non-coring needle. A local anaesthetic cream is first applied to the skin. The needle is inserted through the skin into the soft silicone chamber/top of the port and a clear dressing will be applied over the top to prevent the needle from becoming accidentally removed. Once the needle is in and the port is accessed, the non-coring needle can remain in place for up to 7 days. Fluids and medication can then be administered through the port.

Ports can be used to obtain blood tests and medication can then be administered through the catheter.

A common complication is a blocked port which is thought to be the reason for the infection, although it’s important to know of the risks involved before you consent to the procedure.

Potential problems

It is expected that a port can last many years and serious complications are very rare. Most of the time a port is the best choice for your child. However, it’s important to know of the risks involved before you consent to the procedure.

Bleeding

- Like most operations, there is a risk of bleeding during the insertion
- There is a risk of bleeding or oozing around the insertion site in the neck and the exit site on the chest. This usually settles within the first few days.

Infection

- As with any procedure there is a risk of infection, although we do our best to avoid this by making sure everything is clean and sterile in the operating theatre.
- Signs to look for include redness, pain, heat and swelling over the site where the port is inserted.
- Your child might also have a fever or feel unwell. Your child needs to present to the Emergency Department if they have a temperature of 38oC or more, as the port is a possible source for infection.
- If the port is thought to be the reason for the infection, there may be ways for us to clear the infection. Sometimes the port may need to be removed.

Blockage

A common complication is blockage of the catheter.

- This happens if blood or medication gets stuck in the port.
- To prevent blockages the port will either have fluid running through it or be locked.
- A blocked port can sometimes be fixed using a type of anti-clotting medication. Sometimes the port is too blocked and needs to be removed.

Air bubbles

- There is a small risk of air bubbles entering the port.
- We make sure that there is no air in the syringes and IV tubing used to inject into the port.
- If there is a break or a leak in the tubing, it is done by a surgeon in the operating theatre. Your child will require a general anaesthetic.

Blood clots

A blood clot could develop around the catheter in the vein. There is always a little bit of clotting but this rarely causes problems. If the clot is large or spreading, medicine may be
needed to dissolve the clot and the catheter may need to be removed.

**Needle and port catheter positioning**

- It is important that the port needle is placed in the correct position with the tip of the needle making contact with the back of the port chamber.
- If the port needle is moved out of place or becomes blocked, it will need to be changed.
- The tip of the catheter may move into an incorrect position. This may be indicated by inability to take blood from the port or flush. If this is suspected, further investigations (such as an X-ray) may be needed.

It is important that you discuss these possible complications with your child’s doctor, as well as all the risks and benefits of the port before you consent to the procedure.

Please feel free to talk to your team doctor about any concerns you have. Being informed will help you make the best choice for your child.

**QUESTIONS**

(Write down any questions or concerns you would like to discuss your doctor/nurse.)

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