What is an implantable venous access device (IVAD)?

An implantable venous access device (IVAD) may also be referred to as a Sitimplant, Port-a-Cath or a Vascuport (these are brand names). An IVAD (also known as a ‘port’) consists of a reservoir compartment, a self-sealing septum and a silicone tube which is tunnelled under the skin. The tip of the line sits in one of the heart chambers (called the right atrium). It is quite safe for the line to be in this position. It rarely causes blockage and the veins and heart continue to work normally.

How is it inserted?

The IVAD is inserted under general anaesthetic; it is placed under the skin usually in the upper chest but sometimes further down over the ribs. A needle is usually inserted at the same time ready for treatment to commence.

Once the incision has healed the only things you will see are a lump under the skin and a scar. It should not hurt when it is in place but your child may be a little sore for a couple of days after it is first put in. The nurses will be able to give some medicine to help to stop it hurting.
What is it used for?
The septum is made of a self-sealing silicone rubber which allows a specially designed needle to be inserted through the skin for the administration of intravenous medications, fluids and blood products. Blood samples can also be taken from the IVAD, however if it is not being used to administer fluids or medication then a finger prick blood test may be an alternative.

How long can an IVAD stay in?
When working correctly, the IVAD can stay in place throughout treatment. This may be for a few months, but may be as long as two or three years, depending on the length of each child’s treatment.

How is it accessed?
To administer treatment the nurse or doctor will feel the skin for the septum and then clean the area with Chloroprep. The IVAD is then accessed by puncturing the skin to insert the needle through the septum. A slight prickling sensation may be felt as the needle passes through the skin. A local anaesthetic cream or cold numbing spray can be applied prior to the needle insertion in order to make the procedure more comfortable. Once inserted the needle can stay in place for up to seven days.

General care advice
One of the advantages of the IVAD is that because it sits totally under the skin your child can bathe, shower and swim as normal once the area has healed following insertion.

A dressing is only required when the needle is left in place in the IVAD. Your child should not bathe, shower or swim when the needle is in place.

The IVAD will need flushing once a month with Hepsal when it is not being used. This will prevent clots from forming and the device from blocking.

You will need to observe the site to make sure there is no swelling, redness or tenderness. If you notice anything that worries you, telephone the local shared care hospital or Piam Brown day ward on 023 8120 4249 for advice.
Potential problems

Although the benefits of having an IVAD outweigh the risks there are a few possible problems that can occur.

- **Infection**
  It is possible for an infection to develop either inside the catheter or around the IVAD. You should regularly check your child’s temperature and the area around the IVAD for redness, swelling or tenderness. If you notice a high temperature or any of these symptoms, you will need to phone the hospital for advice as your child may need a course of antibiotics.

- **Blockage**
  Although this is not common the IVAD can become blocked, sometimes with a blood clot or by the drugs. This is avoided by flushing the IVAD each time it is used. When the IVAD is not in frequent use, it is flushed monthly with Hepsal, which contains heparin, an anti-clotting agent. A ‘pulse flushing’ technique is also used for all flushes. If the IVAD does become blocked, medication can be given to try and clear the blockage.

- **Dislodgement**
  Mechanical failure is extremely unlikely. It is possible in a rare event that part of the system could break and become lodged in the circulatory system. If this were to happen it is unlikely to cause any serious harm but your child would need to go back to theatre to have the device removed.

How is the IVAD removed?

When your child no longer needs the IVAD it will be taken out. This is usually done by a surgeon in theatre under a general anaesthetic.

The surgeon will make a small incision over the site of the IVAD and remove it. The catheter will be pulled out of the vein and the wound is then stitched and covered with a small dressing.

Your child may feel a bit sore and bruised after the IVAD is removed. A mild painkiller such as paracetamol will help with this.

For any further advice or information, please speak to a member of staff on Piam Brown day ward on 023 8120 4249 or Piam Brown ward on 023 8120 4816/4817.