The Clatterbridge
Cancer Centre
NHS Foundation Trust

You and your Totally Implanted Vascular Access Device (TIVAD) - Portacath

Nursing

A guide for patients and carers

Contents

This information is for patients who want or need to have a Totally Implanted Venous Access Device (TIVAD) inserted.

The leaflet will explain:

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- **How to care for a TIVAD**
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What is a TIVAD?

A TIVAD is a long hollow tube that is inserted into one of the large veins in your body commonly within your upper arm or within the neck. One end of the tube sits within a vein ending just above the heart, and the other end is attached to an injection port that sits underneath your skin in your upper arm or the chest. TIVADs are also called Ports or Portacaths®. These are usually recommended for patients who need certain types of medicines that irritate or damage small veins or for treatments that are planned for many months to years. They are also recommended for patients who need intravenous therapy over a long period of time as an alternative to long-term venous devices that are visible to others and that require regular dressings and frequent care.

Why is a TIVAD necessary?

TIVAD's are inserted for several reasons:

- Chemotherapy regimens that require a portable pump for a couple of days, regularly over a period of several months, or for long term management with no end date planned
- Veins that prove difficult to repeatedly access, or to prevent vein damage
- Patients whose veins have become painful and more difficult to access following intravenous chemotherapy
- Patients who want a long term vascular device that is not visible on the skin, or require regular dressings with frequent maintenance

How a TIVAD is inserted

Before the insertion of the TIVAD

When you are referred for or request a TIVAD; you will be given an appointment to meet with one of the nurses from the Clinical Interventions Team approximately one week prior to the date the TIVAD will be inserted. At this appointment, the nurse will assess your veins and the area of skin where the TIVAD will be inserted. The nurse will ask you some relevant questions and will take swabs to screen for MRSA and possibly other swabs to check for microorganisms that may increase the risk of an infection. If these swabs are positive, you will be given medication to use

prior to the insertion of the TIVAD. A blood test may also be taken at this appointment if you have not yet commenced you're chemotherapy/immunotherapy treatments to monitor for bleeding risks during the procedure; or if you are currently receiving treatments, you will be asked to have these necessary blood tests the day prior to the insertion of the device.

Please note: It is important to tell your doctor or nurse before attending for your TIVAD insertion if you are on any medication to prevent or treat blood clots, such as warfarin, heparin and aspirin. You must not take aspirin (or aspirin-containing products) for one week before the insertion of your TIVAD as this prevents your blood clotting normally. If you take warfarin or heparin daily, you must discuss this with your nurse, who will advise you when to stop taking these medications and when you can restart them following the procedure.

The TIVAD insertion

You may eat and drink normally the day you are having a TIVAD. However, you should not drive on the day you have your TIVAD inserted, so you should arrange for someone to give you a lift to the hospital and to collect you. It is not normally possible for someone to escort you into the procedure room during the insertion.

We will clean your skin and numb it with an injection of local anaesthetic. The procedure is carried out under full sterile conditions. You will be expected to wear a surgical hat and

mask during the procedure and to lay flat and remain still during the procedure. You will be made comfortable and relaxed. It is necessary to use a specialist ultrasound, which will help locate the most suitable vein. Occasionally, it may be necessary to order a chest x-ray, which will confirm the TIVAD is in the correct positon before the procedure is completed. To implant the TIVAD into position, it is necessary to create a 'pocket' under the skin of your arm or your chest. This will require sutures and will leave you with a small scar about 3-5 cm in length. A catheter is attached to the TIVAD and tunnelled under the skin once inserted into your vein. Once this has been done, you will not have any external parts of the TIVAD visible, but it may be possible to notice a raised area on your body, depending on the location of the device. You will have dressings initially to cover the wound and sutures where the pocket has been formed, it is essential to keep these dressings dry when bathing or showering to prevent an infection. If the TIVAD is to be used within a couple of days, a special needle will be inserted to allow for pain free access while the pocket is healing. Once the sutures have healed, you will be allowed to shower and bathe normally without having to keep the site dry. Your blood tests can then be taken from the TIVAD prior to your treatment or for monitoring purposes. If you attend external blood clinics it is common for staff to refuse to use your port for blood sampling due to lack of experience. It is possible to book into one of the chemotherapy clinics for your pre-treatment bloods if required.

Occasionally, it may be difficult to thread the TIVAD along the vein of choice or to place the line into the correct position, making the procedure unsuccessful at this attempt; other choices will be discussed, if this occurs.

After the procedure

After the procedure, you will be asked to sit in a recovery area where you will spend some time until you are ready to go home. If you are an inpatient, you will be transferred back to the ward. After the procedure, you will be able to eat and drink as soon as the procedure has been completed. Most of the sutures at the insertion site are absorbable, it is essential the site is kept dry for approximately 7-10 days following the procedure to allow for satisfactory healing. You will be given an appointment with the interventional team for an appointment to remove a suture and check the healing of the wound. The procedure is carried out under local anaesthetic so you will be able to leave hospital after a couple of hours. The actual time that you stay in hospital will depend on other appointments after the insertion, and how quickly you recover. You should not drive initially afterwards if your arm is painful or numb following the procedure.

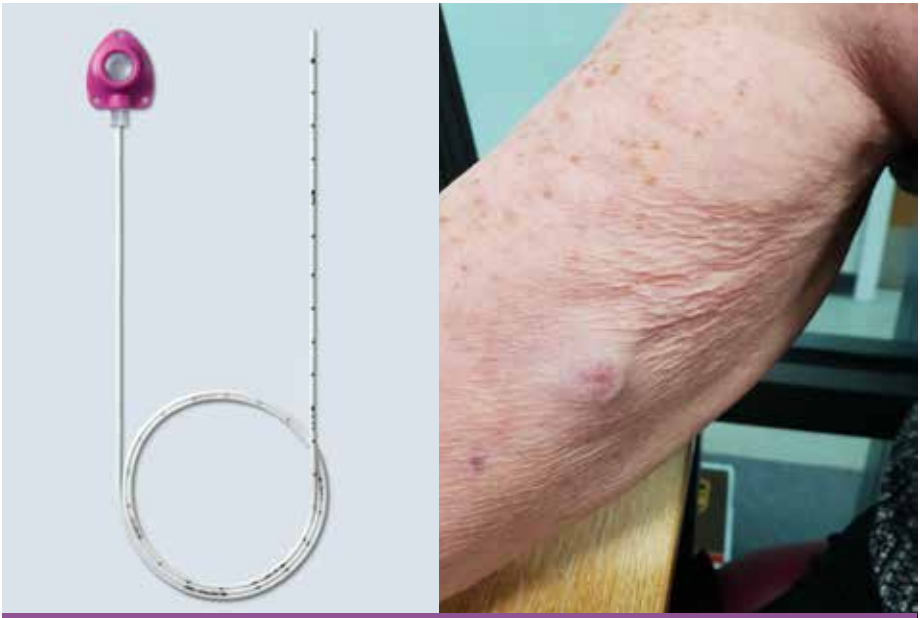

Image of an arm TIVAD and of a TIVAD In position

How to care for your TIVAD

Whilst you have a TIVAD, it is vital that anyone who accesses or uses it has a good standard of hand hygiene by washing their hands with antibacterial soap/gel first and by using a sterile method during all actions. It is essential to cover the needle when the Port is being used to reduce dislodgement of the needle or infection risks. When your Port is not in use, and you are not receiving regular treatment, it will need flushing every four to eight

weeks to maintain the patency of the line. Routine line care when the port is not being used on a regular basis or to remove the chemotherapy bottle, flush and remove the needle can be carried out in the chemotherapy clinics; at home with the district nurses or by family members with support with training and equipment. Please speak to your chemotherapy nurses to arrange this if this is suitable.

Normal activities can be carried out when the sutures have healed, and the TIVAD is not in use. It is possible to swim with a TIVAD, but heavy exercises and some sports may need to be modified. For those patients who regularly propel themselves in a wheelchair may not be suitable for a port placed in the arm, a chest port would be a better option due to the regular movement of the arms and the chest muscles.

Please note: Before chemotherapy is administered via the TIVAD, blood should be withdrawn to ensure it is safe to be used, if this is not possible, an infusion of fluid may be administered over a short period to ensure the line is working safely. You will be asked to report any pain or discomfort that you experience during an infusion given via the TIVAD; if this occurs the infusion **must be stopped.** The staff will then assess the needle position and TIVAD site immediately, and if necessary perform any requirement management of the leakage.

When your TIVAD is no longer required, it may be removed. Prior to this, you will need to stop any blood thinning medication. This

will be explained to you, and you will require blood tests prior to the removal to check for bleeding risks and complications. You will be given an appointment for the removal, which is carried out as a sterile procedure with local anaesthetic. You should arrange for someone to bring you and collect you on the day. For some patients who may face long term ongoing intravenous therapies, your TIVAD may remain in place, but will need to be maintained monthly.

Complications that can occur

- **Ports** can become infected, which can be from a local skin infection at the port site or from a systemic bloodstream infection. Please report any pain, redness or oozing from the site by contacting the Clatterbridge Cancer Centre Hotline. Please also check your temperature if you are feeling unwell, and report any temperatures above 37.5°C promptly. We will provide you with information on how to care for your TIVAD during the initial few weeks post insertion whilst the skin is healing. If necessary, antibiotics to treat infections with be commenced to salvage the line, however in rare cases, it may be necessary to remove the device and wait for all signs of the infections to clear. Portacaths should not be removed if an infection has not been confirmed that the port is the source of the infection.

- **Blood clots** can develop in the vein or along the route where the TIVAD is sitting. Signs include pain, swelling and discomfort in the neck or arm/axillary area on the side where the TIVAD is placed. If this occurs, the thrombus will be treated with daily blood thinning injections, or oral anticoagulant medications which will continue for as long as the TIVAD remains in place. The TIVAD may be used as planned.
- **Port erosion** describes when the TIVAD can wear the tissue above the port thin or break the tissue above it. If this happens, it will need removing, this is a rare event. It is more likely to occur following an infection at the site of the portacath.
- **Lung puncture** this may happen when Ports are placed in the **chest,** in less than 1 in every 6000 patients, and may require further treatment to avoid breathing complications. You will usually have to stay in hospital until the lung has healed.
- **Arterial puncture** is a puncture of the artery that can cause bleeding, this can only occur during the insertion of the device, but this risk is greatly reduced by using the ultrasound.
- **Extravasation** is a leakage of medication from the TIVAD into the tissues. Extravasation of chemotherapy drugs can cause tissue damage which may require surgical intervention and removal. The nurse will check the TIVAD is working properly prior to giving you medications.

- **Lymph leakage** rarely when TIVAD are placed in the arm, the line can press on one of the lymph nodes in the axillary area causing fluid to collect around the port and leak yellow coloured fluid when the port is accessed. This commonly settles over time but can be troublesome when the port is accessed and may require removal.
- **Occlusion** rarely, a line can become blocked if it has not been flushed correctly. All attempts to restore the patency of the line will be taken, but occasionally the device will need to be removed if the line cannot be fixed
- **Reduced blood return** occasionally withdrawal of blood from the line will be difficult or impossible, if this occurs your nurse can instil a special fluid either by a drip or an injection through your TIVAD to help restore this function

During the first few days, your arm can ache and become bruised after having a TIVAD placed. Try placing warm compresses on your arm or shoulder to help ease this, particularly within the first 24-72 hours, simple analgesia may help, but please check your temperature if you are receiving chemotherapy. It is still necessary to move your arm as normal during this period to avoid the development of a thrombus. If worried, please call the Clatterbridge Cancer Centre Hotline for help or advice.

Contact telephone numbers

If you need to speak to one of the interventional nurses for advice or guidance relating to your PICC line, please call the **Interventional Team on 0151 556 5737 (Monday to Friday 8am-5pm.**

Outside of these hours please contact the **Clatterbridge Cancer Centre Hotline on 0800 169 5555**. Your call will be answered by a dedicated nurse advisor. This line is available 24 hours a day, 7 days a week.

Testimonials from patients who have had a TIVAD (provided with their permission)

"I did not want to have a line that would stop me swimming and showering so I agreed to have the TIVAD. I had it for over five years, so allowed me to have my treatment easily and it did not stop me doing what I wanted".

"I had a PICC line for my first course of chemotherapy but struggled with showering and bathing as I did not like using cling film or the shower sleeves I bought. When I restarted chemotherapy, I had a TIVAD placed and, although it was a little more difficult to have fitted, once it healed I have been able to forget all about my line. I have decided to keep it for now as I know I can have my blood tests from it when I need to".

"I had a TIVAD instead of a PICC Line to enable me to socialise without any obvious sign of my treatment, so I didn't have to tell people I had cancer. It has saved me the inconvenience when showering and needing weekly flushes, it is done 3-weekly with my chemo and I can swim and exercise normally. The procedure was thoroughly explained and went smoothly with no pain and only mild discomfort as it healed. The TIVAD has given me the confidence to continue living my life my way without the constant reminder of a PICC Line".

Notes

How we produce our information

All of our leaflets are produced by staff at The Clatterbridge Cancer Centre and this information is not sponsored or influenced in any way. Every effort is made to ensure that the information included in this leaflet is accurate and complete and we hope that it will add to any professional advice you have had. All our leaflets are evidence based where appropriate and they are regularly reviewed and updated. If you are concerned about your health in any way, you should consult your healthcare team.

We rely on a number of sources to gather evidence for our information. All of our information is in line with accepted national or international guidelines where possible. Where no guidelines exist, we rely on other reliable sources such as systematic reviews, published clinical trials data or a consensus review of experts. We also use medical textbooks, journals and government publications.

References for this leaflet can be obtained by telephoning 0151 556 5570.

If you need this leaflet in large print, Braille, audio or different language, please call 0151 556 5570.

If you have a comment, concern, compliment or complaint, please call 0151 556 5203.

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