The ROYAL MARSDEN NHS Foundation Trust

Central venous access devices

A guide for patients receiving intravenous therapies

Patient Information



Contents

Introduction	1
What is a central venous access device (CVAD)?	1
What are the advantages of having a CVAD?	2
What types of CVADs are available?	2
Are there any risks involved in the insertion of a CVAD?	2
Are there any risks once the CVAD has been inserted?	3
How will I know which device to choose?	3
Peripherally inserted central catheters (PICCs)	5
What is a PICC?	5
What are the advantages of a PICC?	5
What are the disadvantages of a PICC?	6
How is the catheter inserted?	6
How do I care for the PICC?	7
How does the PICC dressing get changed?	8
How do I flush the catheter?	9
What equipment will I be given?	9
How is the catheter removed?	10
Skin-tunnelled catheters	10
What is a skin-tunnelled catheter?	10
What are the advantages of a skin-tunnelled catheter?	11
What are the disadvantages of a skin-tunnelled catheter?	11
How is the catheter inserted?	12
How do I care for the skin-tunnelled catheter exit site?	13
How do I flush the catheter?	13
What equipment will I be given?	14
How is the catheter removed?	14

Implanted ports	16
What is an implanted port?	16
What are the advantages of an implanted port?	16
What are the disadvantages of an implanted port?	17
How is the port inserted?	18
How do I care for the port?	18
How is the port removed?	19
In what circumstances should I contact The Royal Marsden or local hospital?	19
Insertion details	20
Record of port access	21
Notes/Questions	22
Sources of information and support	23
Contact details	25

Introduction

This is one of a series of booklets written to provide information for people under care at The Royal Marsden and their relatives. Although it is not possible to include everything you may need to know, your doctor or nurse will be able to answer specific questions which you may have.

Some of the treatment you require will need to be given directly into your bloodstream. In order to do this, we will place a device into your vein, called a venous access device. This enables us to have access to your venous system to give your treatment.

There are several different types of devices available. One type is called a peripheral cannula. It is a small plastic tube that is inserted into a vein in your lower arm or hand, through a needle. This needle is then removed, leaving the cannula in place for a few hours or up to several days while you have treatment.

We will remove the cannula when you finish treatment and you will be given a new cannula every time you need treatment. Sometimes, this can affect the veins and make it harder to insert the cannula. If this happens it may be suggested that you have a central venous access device put in instead.

Some treatment drugs cannot be given into the veins of the hand or the arm and can only be given through a central venous access device, into a larger vein leading to your heart. This may be required if you need to have infusional chemotherapy via a pump.

What is a central venous access device (CVAD)?

A central venous access device (CVAD) is made of a non-irritant material, for example, silicone or polyurethane, which means it can be left in for as long as clinically indicated (several weeks or months, or even longer). The CVAD may contain one or two tubes. A CVAD containing two tubes is called a double or dual lumen catheter and a CVAD containing three tubes is called a triple lumen catheter. CVADs may also be used for injecting contrast for CT or MRI scans (depending on the type of CVAD). Most PICCs and PORTs inserted at The Royal Marsden are CT compatible.

What are the advantages of having a CVAD?

All types of CVAD can be used to give you fluids and drugs and they may also be used to take blood samples. The CVAD will prevent you or your child from having repeated needle pricks from blood taking or insertion of cannulas during treatment.

What types of CVADs are available?

There are three main types of CVADs:

- A peripherally inserted central catheter (PICC) (see page 5)
- A skin-tunnelled catheter (see page 10)
- An implanted port (see page 16).

Each of these devices is described in more detail on the pages listed above.

Are there any risks involved in the insertion of a CVAD?

Occasionally there can be complications when inserting a CVAD:

- During insertion of a chest port or skin-tunnelled catheter, the needle or guide wire can puncture the top of your lung causing an air pocket (pneumothorax). This happens very rarely and you would probably be unaware of this but you may become slightly breathless. A chest x-ray is taken after the catheter has been inserted to check that it is correctly positioned. This x-ray also checks to see whether there is a pneumothorax. If there is one, it can be treated straight away. Once treated, a pneumothorax will not cause any long term problems.
- The PICC may not thread into the correct position and the tip may not be in the correct vein. This is unlikely if a tracking device is used during the procedure.
- Sometimes there may be bruising at the site where the needle went into your vein, or there might be damage to an artery or nerve (about one in a 1000 chance).

Are there any risks once the CVAD has been inserted?

- There is a risk of infection. The risk is usually between one and three in 100 but can be higher depending on many other factors, such as your diagnosis or treatment. Your doctor or nurse will explain the risk to you. You may be able to have antibiotics to treat the infection if it is local around the CVAD site. If not, the CVAD may need to be removed.
- Once the CVAD is in place, there is a risk of a clot (thrombosis) forming around the PICC. This occurs in less than three of every 100 cases depending on your diagnosis, treatment or if you have had a clot before. Your doctor or nurse will explain the risk to you. You may need to take blood thinning (anticoagulant) medication and the CVAD may need to be removed if the blood clot does not respond to the medication.
- The CVAD may become blocked. This can usually be unblocked by the nursing staff, however, if it cannot be unblocked, the CVAD will have to be removed.
- The CVAD may split or become damaged.
- The CVAD may become dislodged and if no longer in the correct position, it will need to be removed.

How will I know which device to choose?

You may be able to choose from any of the three main types of CVADs; however, your choice will depend on the type of therapy you are going to have, duration of therapy and your physical condition. Your choice maybe limited, for example, if you have no suitable veins in your arms or you cannot have intravenous sedation or you have had lymph nodes removed during breast surgery.

Even if you have no choice about the type of device, you may be able to discuss how and where the device will be placed with the team. We will consider your choice of which side you would prefer for the device to be inserted but this could change on the day due to clinical reasons.

The table on the following page summarises the main features of the three different types of CVADs. More detailed information

about each individual type follows afterwards. You should discuss your choice of device with your nurse, as other hospitals may offer different ways of inserting the devices.

	Peripherally inserted central catheter (PICC)	Skin-tunnelled catheter	Implanted port
Do I have to go to theatre and have an anaesthetic?	No	Yes But only a local anaesthetic and sedation	Yes (chest port) But only a local anaesthetic and sedation
Will it leave any scars when inserted or removed?	No Minimal puncture scar	Yes There may be 2- 3 small scars	Yes There will be one scar about 2.5cm long above where the port is and one small puncture scar in the neck
Can I bath and shower with it in?	Yes But you can't soak your arm in the bath	Yes But you can't submerge your chest in the bath	Yes
Will I still have to have needles inserted for my treatment?	No	No	Yes
Can I swim with it in?	No	No	Yes
Do I need to have the dressing changed?	Yes Once a week	Yes Once a week	No
Does it need to be flushed to keep it working?	Yes Once a week	Yes Once a week	Yes Once every eight weeks

Peripherally inserted central catheters (PICCs)

What is a PICC?

A peripherally inserted central catheter (PICC) is a tube which is inserted into a vein in the top of your arm, above the bend of the elbow. It is moved up into the large vein leading to your heart.

A PICC can be placed in either arm.



Diagram of a PICC

What are the advantages of a PICC?

- You do not have to go to theatre to have it inserted
- You do not need a surgical procedure to insert or remove it
- It keeps scarring to a minimum (only a small puncture scar)
- There is less risk of complication during insertion.

What are the disadvantages of a PICC?

- The dressing needs to be changed once a week by a carer/ relative or nurse
- You cannot go swimming with a PICC and it may restrict you continuing with other vigorous sporting activities
- It cannot be used for any nuclear medicine test injections and may only be used for CT or MRI scan injections if the PICC is a CT compatible one.

How is the catheter inserted?



Diagram of a PICC

A nurse or doctor will locate your vein using an ultrasound machine and then inject a local anaesthetic to remove the sensation from the skin over the vein. A small cannula or needle is inserted into the vein which is used to assist entry of the PICC into the vein. A slightly bigger plastic tube (an introducer) is inserted after this which will help with threading the PICC into the vein until the tip is in the correct position. The introducer is removed after this and only the PICC is left in position. A special device is clipped to the PICC to secure it in place on the skin.

An antimicrobial absorbent pad is placed around the PICC to reduce any bleeding which may occur in the first week and then covered by a transparent dressing. Confirmation of the correct position of the tip of the PICC will be done using ECG technology or by a chest x-ray.

How do I care for the PICC?

The dressing will only need to be changed once a week. This can be done by attending the hospital or by a district nurse or we can teach a relative or friend to do this for you when you are at home. You should have a shower, bath or all over wash every day to keep your skin generally clean.

The transparent dressing over the exit site is shower proof; however, take care not to get the PICC or extension set wet. The dressing must remain clean, dry and stuck firmly to your skin. We will give you a waterproof sleeve to wear in the shower to protect the PICC.

The SecurAcath securing device keeps the PICC in place and does not require changing until the PICC is removed.

During the first week after your catheter has been inserted, the PICC site may be red and inflamed. Warmth, like a covered hot water bottle and resting the arm on a pillow, may relieve this. You can use warmth for the first 48 hours to reduce the likelihood of this happening. If it does not help, please contact the hospital.

How does the PICC dressing get changed?

This procedure describes how the antimicrobial absorbent pad is removed and the transparent dressing is changed.

The antimicrobial absorbent pad is only on for the first week. The dressing will then need to be changed once a week following the same steps (excluding step 6).

- 1. Gather all the items you need on a clean surface
- 2. Wash your hands and open the dressing pack
- 3. Remove the bandage
- 4. Place the dressing towel under the arm and open the ChloraPrep sponge onto the pack
- 5. Carefully peel off the old transparent dressing and throw it away
- 6. Then carefully pull apart the antimicrobial absorbent pad, remove it and throw it away
- 7. Wash your hands, dry well and put on gloves
- 8. Clean around the PICC with the ChloraPrep sponge, using backward and forward movements and allow the area to air dry
- 9. Open the transparent dressing and remove the back sheet
- 10. Place the dressing on the arm so that it covers the catheter insertion site and the SecurAcath
- 11. Press the dressing into place as you remove the side sheets
- 12. Wrap the catheter lumen/s in gauze to prevent pressing into the skin (this is optional)
- 13. Finally, place a bandage or a two way stretch elasticated band (tubifast) over to hold the dressing securely.

How do I flush the catheter?

The catheter must be kept clear by injecting it (flushing) with 10mls of normal saline (0.9% sodium chloride). Use prefilled 10ml syringes of saline once a week, after your dressing has been changed. If you have a dual lumen catheter you must inject both tubes in the way described. The injection caps will need to be changed once a week at the time of flushing.

- 1. Wash your hands well, and dry them
- 2. Clean the connection between the cap and the catheter with an alcohol swab, let it dry and then remove the old injection cap
- 3. Open the new injection cap and remove the plastic cover
- 4. Attach the new cap to the catheter
- 5. Attach the syringe onto the cap
- 6. Slowly inject the contents of the syringe 1ml at a time
- 7. Remove the syringe, keeping the pressure on the plunger of the syringe
- 8. Dispose of your used equipment into the special sharps container.

A video guide on how to carry out the dressing and flush a PICC can be found on our website.

www.royalmarsden.nhs.uk/your-care/living-and-beyond-cancer/ video-guides-patients-receiving-intravenous-therapy

What equipment will I be given?

- A PICC pack containing ChloraPrep swabs to use when cleaning around the catheter, semipermeable transparent dressings (Tegaderm diamond film or Opsite IV3000), gauze swabs, bandages and dressing packs
- A flushing kit containing needle-less injection caps to seal the end of the catheter, alcohol swabs, a supply of pre-filled saline syringes.

Further equipment will be supplied as necessary.

How is the catheter removed?

Taking out a PICC is not a special procedure. It is similar to having a cannula removed. The nurse will place your arm on a pillow and remove the dressing. The nurse will gently remove the securing device and pull the PICC out of the vein. A dressing will then be applied to the site. Sometimes the securing device can be uncomfortable during removal. If it is uncomfortable, we can inject some local anaesthetic in the area. The dressing can be removed after 24 hours.

Skin-tunnelled catheters

What is a skin-tunnelled catheter?

A skin-tunnelled catheter is a tube (sometimes called a Hickman line) which is inserted through your chest into a large vein leading to your heart. Along the catheter, there is a small cuff which you may be able to feel through your skin. This cuff prevents the catheter from moving or falling out. The catheter can be inserted on either side of your chest.



What are the advantages of a skin-tunnelled catheter?

It has a larger bore (internal diameter) than a PICC so viscous (thicker) IV therapies can be delivered faster. It can have one, two or three lumens.

What are the disadvantages of a skin-tunnelled catheter?

- You will need to go to theatre to have the catheter inserted. This is carried out under sedation to relax you and local anaesthetic is used to numb the areas where the catheter will be inserted.
- It requires a surgical procedure when removing it (but not in theatre).
- You will be left with three small scars one over your collarbone and one where the catheter comes out of the skin. On removal, another small cut is needed to get the catheter out – about 5cm from the exit site.
- You cannot go swimming while you have a skin-tunnelled catheter but your other activities should not be restricted.
- It cannot be used for any nuclear medicine test injections and may only be used for CT or MRI scan injections in certain circumstances.

How is the catheter inserted?



Diagram of a skin-tunnelled catheter

You will be admitted to hospital for the day. The operator (anaesthetist, surgeon or specialist nurse) will insert the catheter after numbing an area on your chest with local anaesthetic. You will also be given a sedative to relax you and make you sleepy. Occasionally a general anaesthetic may be used.

Two small cuts will be made on your chest – one to tunnel the catheter and the other, over your collarbone, to insert it into your vein. You will have two stitches, one where each cut has been made. We will tell you when these should be removed and by whom. Please ensure these stitches are removed on time and not left in too long, as in doing so, this can increase the risk of a local infection occurring.

After the catheter has been inserted, your shoulder and chest area (where catheter has been placed) may feel stiff and painful for a couple of days. You may find that painkillers help relieve the discomfort. We will take a chest x-ray to check that the catheter is in the right place.

How do I care for the skin-tunnelled catheter exit site?

You will need to change the dressings after the first 24 hours and then once a week using a semipermeable transparent dressing (this allows the skin to breathe). Try to keep the dressing dry and intact.

You should have a shower, bath or all over wash every day to keep your skin clean.

How do I flush the catheter?

The catheter must be kept clear by injecting it (flushing) with normal saline. If you have a dual lumen catheter you must inject both tubes in the way described. The injection caps will need to be changed once a week at the time of flushing.

- 1. Wash your hands well and dry them
- 2. Remove the needle from the syringe
- 3. Clean the connection between the cap and the catheter with an alcohol swab, let it dry and then remove the old injection cap
- 4. Open the new injection cap and remove the plastic cover
- 5. Attach to the end of the catheter
- 6. Attach the normal saline pre-filled syringe onto the cap and open the clamp
- 7. Slowly inject the contents of the syringe 1ml at a time
- 8. Remove the syringe, keeping the pressure on the plunger of the syringe. Only close the clamp after the syringe has been removed
- 9. Dispose of your used equipment into the special sharps container.

What equipment will I be given?

- A pack with semipermeable transparent dressings and a pouch for supporting the skin-tunnelled catheter.
- A flushing kit containing needleless injection caps to seal the end of the catheter, alcohol swabs, a supply of pre-filled normal saline syringes.

Further equipment will be supplied as necessary.

How is the catheter removed?

If you are on any anti-coagulants (blood thinning) drugs you may be asked to stop taking these a few days before the catheter is removed. Please seek advice from the nurse or doctor when the removal procedure is booked.

Usually, you will be admitted as a day case and will be in hospital for three to four hours. You may eat and drink on the day of the procedure as it is carried out under local anaesthetic on the ward.

When you arrive at the hospital, we will take a blood sample to check your platelets, clotting rate and haemoglobin. These checks are done to make sure that there is no risk of excessive bleeding during the procedure.

The test results usually take about two hours. If these results are not satisfactory, it will not be safe to remove the catheter and you may be asked to return in a few days. We will also ask you if you have had any oozing, redness, swelling or pain at the exit site of the catheter.

Following satisfactory test results, the procedure will be carried out by a specially trained nurse or doctor. It usually takes about 30 minutes. You will be asked to lie flat on the bed with one pillow. If you have difficulty lying flat then please let the nursing staff know. You may have felt a small lump under the skin where the catheter is – this is the cuff (see diagram on page 12). If the lump is not visible, the nurse or doctor will check its location using a tape measure.

A local anaesthetic is then injected under the skin around the cuff. This will sting for a minute or two. When the area is numb, a small cut is made in the skin and the catheter is removed. You may feel a pulling and pushing sensation but you are unlikely to feel pain. However, if you do feel pain, let the nurse or doctor know and they can give you more anaesthetic.

Once the catheter has been taken out, the cut is stitched with two or three stitches and a dressing will be applied to the wound. We will ask you to continue lying flat for 30 minutes and if there is no further bleeding, you will be able to leave the hospital. You will be able to drive after the procedure.

You will need to dress the area each day until the stitches are removed. If you have any dressing, gauze, or tape at home, then keep them to use for the dressings. If you need more dressings, we will supply these before you are discharged home.

If the wound bleeds within the first 24 hours you will need to apply a further dressing over the original one. If the bleeding continues or you are concerned then please telephone the ward. Further bleeding may result in a bruise, but this is normal.

If you have any pain following the removal of the catheter, you may take painkillers that you would normally take for a headache.

Following removal you should:

- Avoid heavy lifting for the first 24 hours
- Avoid getting the stitches wet
- Contact your district nurse or GP practice nurse to organise for the stitches to be removed after seven days.

Implanted ports

What is an implanted port?



A port

A port with special needle

An implanted port (sometimes called a 'Portacath') is a device which is inserted under the skin into your body. The usual position is on the chest – it can be placed on either side of your chest or the upper arm. The port is made up of a portal body which is connected via a thin tube (catheter) and inserted into one of the veins – see diagram on page 18.

The port can be felt through the skin. Entry to the port is gained by puncturing the silicone membrane with a special type of needle, which is attached to a length of tubing (an extension set). This will allow you to receive fluids and drugs or have blood samples taken from it.

Puncturing the port is similar to pricking the skin with a pin. Naturally it takes some getting used to. If it is painful, we can apply local anaesthetic gel to the area 30 minutes before we insert the needle to numb the skin.

What are the advantages of an implanted port?

- It only needs to have the needle put in when we need to use it
- The needle is removed in between treatments and you will not have to worry about any dressings or flushing the catheter
- It does not restrict your normal activities including swimming.

What are the disadvantages of an implanted port?

- You need to have a needle inserted each time the port is used. The port can sometimes be difficult to access particularly within the first one to two weeks following insertion as the area is tender to touch.
- In the case of a chest port, you will need to go to theatre or another specific department for the insertion and removal, which may be carried out under local anaesthetic (with sedation) or very rarely under general anaesthetic. You should not eat or drink from midnight the night before the port insertion.
- Most ports only provide a single catheter lumen for access so if you need more complex therapies, then you may also need to have peripheral cannulas inserted.
- It will leave some scars if you are worried about scars then discuss this with the operator. In order for the surgeon to position the port to reduce scars, the nurses may find it more difficult to gain access to it. As a result, you may find the needle access procedure more uncomfortable.
- If you need to have blood tests, for example at your GP surgery or local hospital, you may find that the surgery staff are not trained to take blood from a port.
- It cannot be used for any nuclear medicine test injections and may only be used for CT and MRI scan injection if the port is CT compatible.

How is the port inserted?



Diagram of an implanted port

You will usually be admitted to hospital for the day (chest ports), unless you are coming in overnight for your treatment. It is advisable not to drive if you are in for the day and you should arrange for someone to collect you after the procedure.

The port is inserted by a doctor or a nurse specialist (operator) and usually takes place under local anaesthetic with sedation (chest ports). Two small cuts will be made. One to form a pocket for the port to sit in and the other, an entry site used to put the catheter through. The stitches over the pocket are usually dissolvable. The stitches at the entry site may need to be removed after seven to ten days or may also be dissolvable. You will be advised of the type of stitches you have. We will take a chest x-ray to check that the port and catheter are in the right place.

How do I care for the port?

There is no special care needed for a port. The needle is removed in between treatments and you will not have to worry about any dressings or flushing the port.

How is the port removed?

The port is removed surgically under local anaesthetic (with a sedative, if appropriate) usually as a day case.

In what circumstances should I contact The Royal Marsden or local hospital?

Contact the hospital immediately if you notice any of the following:

- You develop a high temperature, fever, chills or flu like symptoms (this could be an infection) refer to your alert card.
- Your arm, neck or shoulder is swollen and painful (this could be a sign of a blood clot).
- You have pain or burning when flushing the catheter.
- You cannot flush your catheter easily without resistance this could indicate that the catheter has become blocked (never use force when flushing the catheter).
- Your catheter is cracked or broken. In this instance fold or clamp the tubing above the crack or break in the tubing and tape it securely.
- Your catheter is pulled out this could mean the tip of the catheter is not in the correct position.
- You think your catheter site looks red and inflamed, there is any discharge or the redness is tracking up your arm from your PICC (after the first week) this could be early signs of infection.
- Your PICC is leaking under the dressing.
- Your PICC is partially pulled out (that is the length of exposed PICC is more than a certain number of centimetres. Your medical team will decide how much exposed length is safe for you and you will be informed afterwards). Do not attempt to push it back in.

If you have any questions please contact the staff caring for you using the **contact details** section on page 25. You can also use the pages after this to record any essential treatment information and to write down any notes or questions that you may have.

Insertion details							
All devices:							
Type of device:							
PICC Skin-tunnelled catheter Implanted port							
Insertion date							
Insertion by							
Brand of CVAD							
Lumens — single dual triple							
Size of catheter (French) — 4 / 5 / other							
Tip location —							
Additional information on PICC:							
Arm used — left / right							
Vein used							
Length of catheter inserted							
External markings on catheter showing cm							
Any other comments:							

Record of port access

Date of access	Number of attempts	Gauge size/ length of needle	Time needle in situ	Any problems

Notes/Questions

You may like to use this space to make notes or write questions as they occur to you, to discuss with your specialist nurse or doctor.

Sources of information and support

Macmillan Cancer Support

89 Albert Embankment London SE1 7UQ Macmillan Support Line (freephone): 0808 808 0000 Website: *www.macmillan.org.uk*

Provides free information and emotional support for people living with cancer and information about UK cancer support groups and organisations. Offers free confidential information about cancer types, treatments and what to expect.

Website

National Institute for Health and Clinical Excellence (NICE)

10 Spring Gardens London SW1A 2BU Website: www.nice.org.uk

NICE provides guidance for healthcare professionals, and patients and their carers that will help to inform their decisions about treatment and healthcare.

Video guides to flushing and dressing a PICC, disconnecting chemotherapy and removing a port needle can be found on our website:

www.royalmarsden.nhs.uk/your-care/living-and-beyond-cancer/ video-guides-patients-receiving-intravenous-therapy

Macmillan Hotline number 020 8915 6899

You can ring the Hotline 24 hours a day, 7 days a week.

Call us straight away if you are feeling unwell or are worried about the side effects of cancer treatments.

This service provides specialist advice and support to all Royal Marsden patients, as well as to their carers, and both hospital and community-based doctors and nurses caring for Royal Marsden patients.

For further information, please visit The Royal Marsden website: *www.royalmarsden.nhs.uk/your-care/support-services/royal-marsden-macmillan-hotline*

Contact details

If anything unusual occurs, if you have any problems or are worried about any aspects of your CVAD, please contact

Outpatients Sutton: 020 8661 3430 Outpatients Chelsea: 020 7808 2431 / 020 7811 8194

Please also make a note of the ward that you are being treated on and their telephone number.

Ward/department

Telephone number

Your nurse specialist

Telephone number

At (hospital)

Telephone number

Copyright $\ensuremath{\mathbb{C}}$ 2014 The Royal Marsden NHS Foundation Trust All rights reserved

Revised September 2020 Planned review September 2023

This booklet is evidence based wherever the appropriate evidence is available, and represents an accumulation of expert opinion and professional interpretation.

Details of the references used in writing this booklet are available on request from: The Royal Marsden Help Centre Freephone: 0800 783 7176 Email: patientcentre@rmh.nhs.uk

The Royal Marsden NHS Foundation Trust Fulham Road London SW3 6JJ

www.royalmarsden.nhs.uk

No part of this booklet may be reproduced in any way whatsoever without written permission except in the case of brief quotations embodied in critical articles and reviews.

No conflicts of interest were declared in the production of this booklet.

The information in this booklet is correct at the time of going to print.

Should you require information in an alternative format, please contact The Royal Marsden Help Centre.

The patient information service is generously supported by The Royal Marsden Charity.

royalmarsden.org Registered Charity No.1095197



PI-0084-08

The Royal Marsden publishes a number of booklets and leaflets about cancer care. Here is a list of information available to you.





- Eating well when you have cancer
- Lymphoedema
- Reducing the risk of healthcare associated infection
- Support at home
- Your guide to support, practical help and complementary therapies



Treatment

- Central venous access devices
- Chemotherapy
- Clinical trials
- Radiotherapy
- Radionuclide therapy
- Your operation and anaesthetic



Your hospital experience

- Help Centre for PALS and patient information
- How to raise a concern or make a complaint
- Making your stay with us safe
- Your health information, your confidentiality

Please visit **www.royalmarsden.nhs.uk/patientinformation** where several patient information booklets are available to download.

Patient Information

Patient Information

