Merkel Cell Carcinoma

Support
1. **HELLO**

This booklet has been written to give you information about Merkel cell cancer. We hope you find it useful and straightforward.

You may be reading this because Merkel cell cancer affects you or a family member. If this is the case, this may be a difficult time for you. It may be easier for you to make decisions about this cancer if you know more about it, and about possible treatments. This information may help you ask questions when you meet the specialist team.

It is important to know right away that many people with Merkel cell cancer are cured by standard treatments. Treatment can control Merkel cell cancer even if it has spread.

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Merkel cell cancer is a skin cancer. It is rare. About three hundred people are diagnosed with Merkel cell cancer each year in the UK.

Merkel cell cancer belongs to a group of cancers called neuroendocrine cancers. This is based on their appearance under the microscope.

Merkel cell cancer mostly affects older people. About half of people who get this cancer are older than 76. However, it can still affect young people in their forties and fifties. More men than women get Merkel cell cancer.

Cancers are caused when normal cells undergo changes and grow out of control. Merkel cell cancer gets its name because it used to be thought that the cancer developed from cells which are part of the nervous system, called Merkel cells.

In most Merkel cell cancers, a virus is found in the cancer cells. In fact, the virus was first discovered in Merkel cell cancer, so the virus is called Merkel cell virus. After it was found in the cancer, the virus was discovered to live harmlessly on the skin in most healthy people. It looks like the virus gets trapped in the cell by mistake and then helps the cancer to grow. However, once it gets into the cancer cell, the virus is always damaged so that it can never spread to other people. Merkel cell cancer is not infectious and cannot be passed on to other people.

In many people, excessive sunlight damages cells in the skin leading to the development of Merkel cell cancer. Almost all Merkel cell cancers happen in people with paler skin colours and Northern European ancestry.

About a fifth of people with Merkel cell cancer have an illness or treatment reducing the ability of the immune system to detect and deal with cancer cells. We think that immunity plays an important role in controlling the cancer or the virus.

Merkel cell cancer can happen in people at the same time as other cancers. Sometimes a skin lump can contain a mix of Merkel cell cancer and other cancers.
3. WHERE ARE MERKEL CELL CARCINOMAS FOUND?

Merkel cell cancers usually start on the skin. They usually start as a painless firm bump. This may be red, blue or violet or just skin-coloured. This is called the primary site.

In some people they can grow quickly or can break down to form an ulcer. In other people, they can grow slowly.

Merkel cell cancers can start anywhere on the body. Most commonly they start on parts of the body that are exposed to the sun. However, they also occur in body parts that are usually covered up. The commonest place for Merkel cell cancer to start is on the head or neck. The next most common place the shoulder, arm or hand. A smaller number start on the leg or hip. The least common place is on the trunk.

Merkel cell cancers can spread to surrounding skin and to nearby lymph nodes in the neck, armpits or groins. The lymph nodes are small normal lumps of tissue about the size and shape of a baked bean. Lymph nodes help fight infection and filter out abnormal cells. This is why the nearby lymph nodes are one of the commonest places to which Merkel cell cancers can spread.

In some people, Merkel cell cancers can spread to other organs like the liver or lungs. A cancer that has spread to another part of the body is called a metastasis (or metastases if there are several of them). Another name for metastases is secondary cancer.

Sometimes, Merkel cell cancers appear in lymph nodes or in another organ even though the primary is never found.

4. WHAT DOES THE STAGE OF THE CANCER MEAN?

<table>
<thead>
<tr>
<th>Stages I &amp; II</th>
<th>Description</th>
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<tbody>
<tr>
<td>Stage I</td>
<td>A small primary, less than 2 centimetres across (about 4/5 of an inch).</td>
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<tr>
<td>Stage IIA</td>
<td>Larger than 2 centimetres.</td>
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<tr>
<td>Stage IIB</td>
<td>The primary had invaded nearby tissues like muscle or bone.</td>
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To be called stage I or II, there must be no evidence of spread beyond the primary.

Two thirds of people presenting with a new Merkel cell cancer have either stage I or II disease.
**Stage III**

Stage III means that there is evidence the cancer has spread to the nearby lymph nodes or has appeared on the skin in between the primary and the lymph nodes.

Stage III is split into two groups, stage IIIA and IIIB.

In some people, it is obvious the Merkel cell cancer has spread because there are enlarged lumps we can feel in the nearby skin or lymph nodes. In other people spread to the lymph nodes is not so obvious. Some specialists offer an operation to take a sample of the nearby lymph nodes to find out if they contain cancer cells. This is called sentinel lymph node biopsy or SLNB for short. You can read more about this in section 12, on page 9.

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<table>
<thead>
<tr>
<th>Stage IIIA</th>
<th>The cancer is found as only a few cells in lymph nodes by SLNB, or the cancer is only found in lymph nodes and there was no primary.</th>
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<tbody>
<tr>
<td>Stage IIIB</td>
<td>The Merkel cell cancer is obvious as a lump in lymph nodes or in the skin between the primary and the lymph nodes.</td>
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**Stage IV**

The specialist team (MDT), see section 6, on page 5, will work out the stage of the cancer. The stage takes into account how large the primary is and whether there is any evidence of spread to lymph nodes and to other organs. The specialists use the stage of the cancer to advise the patient on what treatments could be offered. The stage of the cancer can be a guide to whether the cancer is likely to be cured or whether it might spread or reappear. However, everyone is different. For this reason, the specialist may talk about the future using words like “probably”. Even knowing the cancer stage, they cannot be certain what will happen to an individual.

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**Understanding the stage helps your team to recommend the best type of treatment for you**
5. WHAT IS THE PROGNOSIS FOR PATIENTS WITH MERKEL CELL CANCER?

There is a very good chance of curing people with a small primary Merkel cell cancer. There is a reasonable chance of curing people with bigger primary Merkel cell cancers or Merkel cell cancers that have spread to lymph nodes. Generally speaking, stage IV Merkel cell cancer might be controlled but not cured using current treatment.

Data published in 2016 reported that five years after stage IV Merkel cell cancer was diagnosed, about a sixth of people were alive. Since that time, new treatments have been introduced. The chances of survival may have improved.

Knowing the stage of your tumour will help you to make an informed decision about treatments. We suggest you ask your specialist about your cancer stage.

6. IF I HAVE MERKEL CELL CANCER, WHO DO I SEE IN THE NHS?

At any appointment, you may have many questions and may not know where to start. It helps if you write down a list of your questions. Some people find it helpful to take a friend or relative along to help them recall what has been said afterwards. At the end of your appointment take a few minutes to check your list. If you have tests, we suggest you ask when and how you will receive the results.

Getting a diagnosis

The first person you might see could be your GP. If the GP thinks you might have skin cancer, they should refer you urgently to see a skin cancer specialist, a dermatologist, within 2 weeks. It is quite common for the GP and even the dermatologist not to recognise a Merkel cell cancer to begin with. The dermatologist will typically take a biopsy of the skin lump to make the diagnosis. The dermatologist is usually the first person who finds out this is Merkel cell cancer.

The Multi Disciplinary Team (MDT)

Once the diagnosis is known, the dermatologist must either be part of a team specialising in treating Merkel cell cancer or must refer you immediately to a specialist team. Merkel cell cancer is rare and can grow quickly, so it is important it is only treated by people with experience of treating this cancer. In a specialist team, several experts in Merkel cell cancer will decide together on the best treatment plan rather than relying on a single opinion. The joint discussions they have are called a Multi-Disciplinary Meeting, or MDM for short. The MDM will work out the choices of treatment to be discussed with you.
The specialists you are most likely to meet are the oncologist, dermatologist, and surgeon. The oncologist specialises in treating cancer with radiotherapy and drug treatment. The surgeon is trained to do complex operations to remove cancers on the skin or in lymph nodes. They aim to give the best-looking results. The dermatologist is trained to recognise skin cancers of different types and is usually the first person to do the biopsy. Some dermatologists also do some forms of surgery on the skin.

The Multi-Disciplinary specialist team (MDT) is usually supported by a pathologist who examines the biopsies and a radiologist who reports the scans. Some specialist teams will include people who are involved in research to improve treatments for people with skin cancer.

There is a specialist team in every region of the country. However, the specialist team may not be based at your nearest hospital. This can mean that you may have to travel to see the specialist. The specialist team should contact you very soon after the diagnosis of Merkel cell cancer is made. They should make sure that that you have the results of their tests as soon as possible, ideally within 2 weeks of being seen, if possible. They should offer you the best choices of treatment as quickly as possible.

At an appointment with the specialist team, a doctor will ask you questions and examine you. They are interested in your general health and the stage of your cancer.

The specialist team should organise various tests. The tests are used first to find out what the cancer is, what is the cancer stage and then to decide the best treatment. After the first treatment, you may continue to have some of the tests at regular intervals, to monitor your health and the effects of your treatment.

**Point of contact**

When you come to an appointment with the specialist team, you should be given a main contact. This will usually be a clinical nurse specialist. They will support you and they will be the person you speak to most and are usually your first port of call if you have questions outside of your consultation.

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7. **BIOPSY**

A skin biopsy involves taking a sample of the affected part of skin. This is then sent to a pathology laboratory to be examined under a microscope. We can only be sure what a cancer is by studying a sample of tissue under a microscope. The biopsy is usually carried out by the dermatologist. The GP might do a biopsy of a lump and discover this is Merkel cell cancer.

A skin biopsy is usually done using a local anaesthetic to numb the skin and prevent pain.

There are different types of biopsy. If the lump is small and the doctor suspects it is Merkel cell cancer, they might completely remove the lump. This is called an excision biopsy. If the lump is larger, or the doctor is not sure what it is, they might just cut a small piece out. This is called an incision biopsy. Another biopsy uses a special instrument to punch a small hole in the skin to obtain a sample. This is called a punch biopsy.

Sometimes the doctor might find another lump in the body, for example in the neck or armpit or groin. It might be such a lump shows up on a scan. If this is the case, the doctor may take a sample. Sometimes this is done in clinic by just putting a needle into the lump. This is called a fine needle aspirate. Sometimes, the doctor will arrange for a biopsy to be taken at the same time as the patient has a scan.
It is standard practice for patients with Merkel cell cancer to have a scan to give detailed pictures of the organs in your body. These can show any suspicious areas in lymph nodes or other organs which might be from the spread of Merkel cell cancer.

During the CT scan, the patient lies flat and still on a bed that slides slowly through the hollow centre of a large circular machine. The scanner is not enclosed. The scan takes around 15-30 minutes. CT scans use X-rays so the technician will be in a separate room but the patient can speak to them through an intercom. Usually, the patient will be asked to drink a special liquid called contrast before the scan. Also, it is usual that the patient will have an injection into a vein. These improve the quality of the pictures.

An MRI scan is similar to a CT scan. It uses magnetism instead of X-rays to build a picture up of the internal organs. Patients lie inside a tube rather than a pass through a hollow circular machine. The process is noisy so people will usually be given headphones or earplugs to block out the noises.

A CT PET is another form of CT scan. A safe radioactive sugar is injected into a vein. It goes to parts of the body that consume a lot of sugar. Merkel cell cancer tends to be very active and consumes sugars. This means they show up brightly on the scan. Not all UK hospitals have PET scanners so your nearest one may not be close to home. Not everybody will need to have a PET scan, other types of scan may be more suitable.

For patients with stage I, II or III Merkel cell cancer, the specialist team aims to remove or destroy the Merkel cell cancer primary and any spread to lymph nodes. There is a good chance of cure. The chance of cure is highest for stage I Merkel cell cancer, and reasonably good for stage II and III Merkel cell cancer. The specialist team are trying to cure the patient of the cancer while causing as little harm as possible.

For some people, it is not possible to cure the cancer. This might be that the primary is very large or there is stage IV Merkel cell cancer. In this situation, the specialist is aiming to shrink the cancers in order to prolong life. They also aim to improve symptoms and give the patient the very best quality of life possible.

Surgery is the most common treatment used for the primary Merkel cell cancer and spread to the lymph nodes.

The specialist team may recommend doing an operation to remove a wide area round the primary, even if the primary has already been removed at the time of biopsy. This is called a wide local excision. You can read more about wide local excision in section 11, on page 9.

It is also very common to also give radiotherapy for the primary, even after a wide local excision has already been done. There is pretty good evidence that if radiotherapy is given after wide local excision for Merkel cell cancer, this reduces the chance of the Merkel cell cancer coming back.
In some people, radiotherapy may be offered right away for the primary, without a wide local excision.

Radiotherapy is often offered to the lymph nodes after surgery. Again, radiotherapy is sometimes offered instead of surgery to the lymph nodes.

If the Merkel cell cancer is very large, the specialists may recommend drug treatment. Drug treatment is used in some people to shrink the cancer so that surgery and radiotherapy can be given. The main drug treatments are chemotherapy or immune therapy.

If the Merkel cell cancer has spread to other organs, drug treatment is offered to shrink the cancers and lengthen life.

There are different reasons why one approach is offered in one person and not another. Your general health, the site, size and spread of the Merkel cell cancer will influence which treatments are recommended. If you want to know, you should ask your specialist team why they have recommended the treatment you are being offered and what the alternatives are. You might also ask the specialist whether you can enter any clinical trials to improve treatments for Merkel cell cancer.

### 10. CLINICAL TRIALS

There are trials and research taking place to improve the quality of treatment for people with Merkel cell cancer. Clinical trials and research are a normal part of the work of the NHS.

In a clinical trial, you will always be given information about the treatment and the alternatives. There will never be pressure on you to enter a clinical trial. You will always have time to decide if you want to take part. If you want to take part, the specialist team will ask you to sign a form to give consent. If you later decide not to take part, you are free to withdraw from the trial. Whatever you decide, the specialist team should offer you the same high quality of care in a trial or outside a trial.

**If you are offered a clinical trial, these are some questions you could ask.**

- What is the aim of the trial?
- What treatment will I get if I take part?
- What treatment will I get if I don’t take part?
- What are the possible side effects of the trial treatment or the usual treatment?
- How long will the trial last?
- What happens to my treatment when the trial ends?
- Where is the trial taking place?
- Will I need extra visits to hospital?
- What scans and tests are involved in the trial?
- Will my travel costs be covered?
- Who can I contact if I have a problem during the trial?
11. WIDE LOCAL EXCISION

Surgery is one of the most common treatments for cancer. After the initial biopsy, it is very common to treat the primary Merkel cell cancer with wide local excision. A wide local excision removes any remaining Merkel cell cancer and includes a safety margin of normal skin around it. The idea behind doing wide local excision is to reduce the chance of the Merkel cell cancer returning in this area.

The size of the surgical safety margin depends on the size of your Merkel cell cancer and where it is on your body. In some people the margin might be 1 centimetre or about half an inch. In others it might be 3 centimetres which is over 1 inch. Generally, it is thought a wide margin should be at least 2cm round the primary.

After the wide local excision, the wound is stitched together if this is possible. In some people, the wound is too big to stitch together. In this case, the surgeon moves skin to cover the wound. This is called a skin flap if nearby skin and fat are moved over the wound. It is called a skin graft if a layer of skin is taken from another part of your body and put over the wound. If a graft or a flap is required your surgeon will explain this in detail.

Often, your surgery will be done as a day case but sometimes patients have to stay in hospital.

12. SENTINEL LYMPH NODE BIOPSY

Some specialist teams believe that it is useful to do a surgical procedure called a sentinel lymph node biopsy. The idea is that the Merkel cell cancer might spread to one lymph node first before it spreads elsewhere. That first lymph node which drains an area is called the sentinel node. Some areas of skin have more than one sentinel node which may be in different areas.

The first thing to do is find the sentinel lymph node(s). This is commonly done at the time of wide local excision. A radioactive tracer injection is given into the skin near the primary Merkel cell cancer. A little later, the patient has a scan. The first node(s) that shows up positive on the scan is/are the sentinel node(s), and can be traced by a tiny radioactive signal at the time of the operation. The surgeon also injects a blue dye into the normal skin near the primary Merkel cell cancer. This dye travels through the lymphatics to the sentinel node(s) and colours it/them blue. The surgeon makes a cut in the skin over the node(s), finds any sentinel nodes which are removed and sent for analysis.
13. Lymph Node Removal

The cancer may be found in the lymph nodes because the doctor feels them during the examination, or because large nodes are seen on a scan or through a sentinel lymph node biopsy.

If the cancer has reached your lymph nodes, you may be advised to have surgery to have them taken out. The purpose is usually to get rid of the cancer. Some people will be cured by having the cancer removed from the lymph nodes.

If an operation is needed, it is usual to remove many lymph nodes all at the same time to reduce the risk of the cancer coming back. This is called a completion lymphadenectomy.

Sometimes the surgeon might just remove a few lymph nodes. This might be to get rid of a troublesome lump but is not intended to cure the Merkel cell cancer. This may be used if the cancer has already spread to other parts of the body or if the patient is not very fit.

Side effects of surgery

Surgery causes side-effects including pain, swelling and bruising. Infection can happen although the care team will do everything they can to prevent infection.

If lymph nodes have been removed, people can get swelling of the nearby tissues, usually in the neck, arm or leg because of poor drainage of lymph fluid. This is called lymphoedema. It can develop a few weeks, or even several years, after treatment. There are things you can do to reduce the risk of lymphoedema and these will be explained to you by your care team.

14. Radiotherapy

Radiotherapy uses high energy x-rays to target and kill cancer cells in a specific area. Patients do not feel anything during radiotherapy, but they do have to lie still for a few minutes.

Treatment is normally given in short daily sessions over a number of weeks, appointments usually last 15-20 minutes. The number of treatments required depends on the site, size and depth of the area being treated.

Side effects of radiotherapy

Unfortunately, some healthy cells within the treated area can also be affected and it may become sore and scabbed or bleed. Side effects normally start about two weeks in to the treatment and disappear after treatment ends.
CHEMOTHERAPY

Chemotherapy uses drugs that destroy or damage cancer cells. Chemotherapy poisons cells that reproduce quickly. This means it kills cancer cells, but also causes normal cells to stop growing so that they need time to recover.

Many chemotherapy drugs are given into a vein but some can be given as tablets.

A course of chemotherapy is made up of a number of treatment cycles. A cycle means treatment is given for a set period and then stopped. The break in treatment gives the chance for normal tissue to recover before the next cycle begins.

Many different drugs can be used. One example is to give carboplatin and etoposide into a vein on the first day and then give etoposide tablets for two to four more days. Then there is a break and three weeks later the cycle is repeated. This is done up to six times.

There are no good clinical trials of chemotherapy for Merkel cell cancer even though it has been used for at least thirty years. Our experience tells us that roughly 60% of people with stage IV Merkel cell cancer get shrinkage of the Merkel cell cancer deposits. However, we also find that, for many people, the cancer starts to grow back after a few months, sometimes before the end of chemotherapy.

**Side effects of chemotherapy**

The side effects of chemotherapy can include an increased risk of infection. This usually happens in the middle week of a cycle because the number of white blood cells are reduced. White cells are an important line of defence against bacteria. Sometimes, patients are given a short course of antibiotics in the middle of a cycle because this has been proven to reduce the chance of an infection and reduce the chance of having to come into hospital.

Chemotherapy can also cause easy bruising or bleeding, sore mouth, reduced appetite, nausea, vomiting, loss of taste, diarrhoea, rashes, tiredness and hair loss. The care team and the chemotherapy team will be able to give medications to prevent side effects. They will advise on what else the patient can do to reduce side effects.
17. EMOTIONAL WELLBEING

Most thoughts and feelings are helpful, but sometimes they can make it hard for us to make decisions and can cause a reduced quality of life.

It can help to identify and name the emotions you are feeling. This is a bit like physical health where identifying the symptom and cause can help get the best treatment.

It’s easy to stop doing the things you have always enjoyed and to end up feeling worse as a result. Simple things like meeting friends, walking the dog or simply having a long soak in the bath can make a difference to your well-being. If you have something to look forward to, this can lift your mood. Doing things that give you a sense of achievement can help you feel in control. Even so you should not feel under pressure to do things if you don’t feel like it.

You might think about using a technique called mindfulness. Mindfulness encourages you to give full attention to your body, your

16. IMMUNOTHERAPY

Immunotherapy uses drugs called immune checkpoint inhibitors. Unlike chemotherapy, these do not poison cancer cells. Instead, they help the immune system attack the cancer. If you imagine the immune system to be an engine designed to attack the cancer, some drugs turn the ignition key and others release the brakes. However, the immune engine does not have a good steering wheel. This means that the immune motor can attack normal organs as well as attacking the cancer.

At the time of writing, the only immune therapy for Merkel cell cancer available on the NHS is called avelumab. It is given either after chemotherapy or instead of chemotherapy for stage IV Merkel cell cancer. It is given into a vein every two weeks. There are other immune therapies which might be used in trials or which might become available in the future. These include nivolumab, pembrolizumab and ipilimumab.

Immune therapies have been tested in trials. At the time of writing the evidence is still quite early. If immune therapy is the first drug treatment to be used, it looks like about 60 to 70% of people have shrinkage of their Merkel cell cancer deposits. It looks like the benefits can last many months or even years.

**Side effects of immunotherapy**

Immune therapies cause side effects. They can cause inflammation in any organ. For example, some people develop an overactive or inactive thyroid. They can get breathless from inflamed lungs called pneumonitis. They can get diarrhoea, nausea and loss of appetite from inflamed intestines. Rashes are common. The liver, kidneys, nerves, muscles, heart or joints can become inflamed. Many people are tired. Even so, generally, immune therapy is tolerated better than chemotherapy. Many people get mild side effects. With current treatments, between 10 to 15% of people get severe side effects meaning they have to come into hospital and have steroid treatment.
It is not easy to tell your family and friends that you have cancer. It can help if you plan the conversation in advance.

It is natural to worry about how people close to you will react when you tell them you have Merkel cell cancer, especially if you generally prefer to keep things to yourself. However, the conversation is often easier than you thought it would be, once it starts.

Some people find they are able to talk about their experiences and feelings straight away. Others prefer to take time to think things through and get all the information they need first.

It may be helpful to have some written information about your diagnosis. This helps to remind you what was said in the doctor’s office. It also gives your family and friends something they can read to answer some of the questions they may have. Ask your specialist or the specialist nurse to write things down for you. Depending on what you want to know, you might want to include:

- What kind of cancer have I got?
- What stage is the cancer and where has it spread?
- What is the treatment planned?
- What are the chances I can be cured?
- Will the cancer affect how long I might live?
- Roughly how long do other people live who have a cancer like mine?

You should expect your specialist to give honest answers with kindness. Even bad news is usually better than not knowing what is going on. Sometimes the news is better than you had imagined it was going to be. If you want to look for information yourself it is a good idea to speak to your specialist team, they will be able to signpost you to accurate and trustworthy sources of information.
There may be times that you might not want to talk to those closest to you. Some people find it easier to talk to someone outside their friends and family.

You can arrange to talk to your specialist nurse, care team or GP, over the phone or during an appointment.

Your care team and/or GP can also arrange for you to speak to a counsellor or therapist. This can be particularly helpful if you’re feeling low or struggling with exactly how you, or loved ones, are feeling.

There are a number of charities and organisations, including ours, that run phone lines you can call for a chat or to find further information and support.
It can be a shock to hear that the Merkel cell cancer has returned or grown or spread, especially if this comes after someone was told they had been cured or were in remission.

Many people tell us this is as difficult to deal with as an initial diagnosis. Some have said it almost feels worse, even if they knew it was a possibility or suspected it might be happening. They describe feelings of failure, despair, anger or even hopelessness. It may even make people doubt their ability to make decisions about the future care.

If this happens to you, talk to your care team about your feelings. They will understand, and will want to support you.

We advise you to find out whether any other treatment is available. Ask what the benefits are, what that treatment would involve and what the risks are. Whatever decision you do make, it’s vital that you feel comfortable with it and are confident that it’s the best thing to do. For some people, this includes saying no to further treatment.

If you have any questions about any of the subjects we discuss here, you can call us, and you can always talk to your care team.
Having any cancer can feel lonely and isolating at times. This can seem especially so when you have an uncommon cancer, that few have heard of.

There are many people - your family and friends, work colleagues, your care team, specialist nurse and GP who can help you cope with your experience of cancer. They can be used to help you to help yourself – so, in a difficult situation; you can take back the feeling of control.

Whatever your situation, you’re definitely not alone - we’re here
This booklet was produced by the NET Patient Foundation and edited by Dr Neil Steven, Clinical Senior Lecturer and Honorary Consultant in Medical Oncology, University of Birmingham.

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