The ROYAL MARSDEN
NHS Foundation Trust

Gemcitabine and capecitabine (GemCap) for pancreatic cancer

GI Unit

Patient Information

NHS

Introduction

Your doctors have suggested that you may benefit from a course of gemcitabine and capecitabine chemotherapy treatment. They have weighed the expected benefits in terms of controlling the cancer and its symptoms, against the possibility of side effects. Your doctor will have discussed these with you.

Although this treatment may result in the cancer shrinking and/or prolonging your life, it is unlikely to get rid of the cancer entirely. However, the benefits you may receive from treatment may last for some time. It is not possible to predict, before you start treatment, how your cancer will respond or for how long treatment will be beneficial. If you are still unsure about the benefits then please ask. This leaflet explains what you can expect from the chemotherapy you will receive.

Treatment plan

Gemcitabine is given by injection into a vein over 30 minutes once a week for three weeks, followed by a one week rest period. You will be given the injection on a single visit as an outpatient. A new cannula will be placed in your arm before each dose of chemotherapy and will remain there only while that chemotherapy is being given. The doctors in clinic will see you and have your blood tested before each cycle of chemotherapy. Treatment may be delayed if your blood count is not at a suitable level.

Capecitabine is a tablet form of chemotherapy. This is taken together with the gemcitabine. You will need to take the tablets twice a day, after meals, for 21 consecutive days. This is followed by a one week rest period.

Each four week period of treatment is called a cycle.

If you are taking warfarin (a tablet for thinning the blood), you must tell your doctor before you start taking the capecitabine tablets.

If you take an antacid (medicine for heartburn), please tell your doctor. If it contains aluminium hydroxide, this will interfere with the absorption of the capecitabine.

You will also have a CT scan between nine and 12 weeks. The review of your CT scan and response will be discussed with you by the doctor at your next clinic/treatment appointment. If the CT scan shows that your tumour is not responding, this treatment will stop and your doctor will discuss further treatment options with you. If you are tolerating the treatment well and it is continuing to be beneficial for you then treatment can continue indefinitely.

DPD testing before treatment

Before starting this treatment, you should have a blood test to check whether you have low levels of dihydropyrimidine dehydrogenase (DPD). This is called DPD deficiency.

People who have low DPD levels could make the side effects of certain chemotherapy drugs worse and this could develop into serious or life-threatening side effects. These group of drugs are called fluoropyrimidines such as fluorouracil (5FU) and capecitabine.

You will not know if you have DPD deficiency without a test, as there are no symptoms. You can talk to your cancer doctor about your risk of having DPD deficiency before you start treatment.

Side effects

All drugs can have some side effects and this includes gemcitabine and capecitabine chemotherapy. These vary and for some people they may not occur.

The more common side effects are:

- **Low blood count** – chemotherapy temporarily reduces the rate at which blood cells are produced in your bone marrow.

This may cause:

- anaemia (low red cell count) – you may need blood transfusions
- neutropenia (low white cell count), which may increase your risk of developing an infection
- thrombocytopenia (low platelet count), which may increase your tendency to bruising and bleeding – you may need platelet transfusions.

If you feel unwell at any time or have a temperature (37.5⁰C / 99.5⁰F or higher), you should contact the hospital immediately as you may need to be admitted for intravenous antibiotics. For further information, please refer to The Royal Marsden booklet *Chemotherapy; your questions answered.*

- **Tiredness and lethargy** – during your chemotherapy, you may become tired more easily after normal activities. This is quite normal and usually occurs with all types of chemotherapy. Your tiredness should resolve in time.
- **Skin rashes** – some may be very itchy, but they are usually mild. Medications can be given to help if the rash is itchy.
- **Flu-like condition** (fever, headaches, pain) – this reaction does not last very long and can be treated with simple paracetamol.
- **Changes in the way your liver and kidneys work** – these are temporary effects and are unlikely to cause you any symptoms. Your doctors will monitor this carefully using blood tests. You may need to stop the treatment temporarily.
- **Fluid retention** – you may notice swelling of your ankles (ankle oedema) or breathlessness. Usually, this is mild and goes away when treatment ends.
- **Hair thinning** – occasionally thinning of the hair may occur. However, it is unlikely that you will need a wig and your hair will regrow six to eight weeks after treatment is completed.

For further information, please refer to the Macmillan booklet *Coping with hair loss*.

- **Nausea and vomiting** – chemotherapy sometimes causes this. It can usually be managed with anti-sickness (anti-emetic) drugs.
- **Soreness and redness of the hands and feet (plantar-palmer syndrome)** – capecitabine can cause this. You may find that the palms of your hands and the soles of your feet become sore and red or dark. The skin may become dry, itchy and peel. A simple moisturiser, such as an emollient cream, will help prevent dryness. Please tell your doctor or nurse if this becomes a problem, as they may temporarily stop the capecitabine tablets.
- **Sore mouth and mouth ulcers** – keep your mouth clean and healthy by drinking plenty of fluids and carrying out good oral hygiene. If you develop a sore mouth, we can prescribe mouthwash to help with this.
- **Taste changes** – you may find taste changes affect your appetite. However, it is important to make sure you drink plenty of fluids, at least 10 glasses or cups a day, and eat well.

The less common side effects are:

- **Constipation or diarrhoea** – you may experience either of these. Constipation can be treated with laxatives and diarrhoea can be treated with medications that slow the bowel.
- **Sore eyes (conjunctivitis)** – we can prescribe eye drops to soothe your eyes and decrease the irritation.
- **Scarring on the lungs** – this is a rare side effect causing stiffening of the lungs and shortness of breath. If this happens, the chemotherapy will be stopped.
- **Chest pain** – patients receiving capecitabine have reported episodes of chest pain, discomfort or a feeling of tightness or heaviness across the centre of the chest and/or palpitations (a sensation of a racing and irregular heartbeat).

These symptoms may occur suddenly and the duration can vary. Sometimes they resolve within minutes although they may last for longer. The chest pain is caused by a temporary narrowing of the blood vessels supplying the heart. This is reversible once the chemotherapy is stopped. This type of chest pain is called angina and can lead to a heart attack. It may be more common in people with a history of heart disease, but can occur in anyone. Always let your doctor know if you have a history of problems with your heart.

There are many different causes of chest pain, most of which are unrelated to the chemotherapy. If you develop any of these symptoms, you should stop taking capecitabine until you are told otherwise and go immediately to your nearest accident and emergency department and take this leaflet with you. Afterwards, you should contact your hospital team at The Royal Marsden.

- Very rarely you may develop a **severe skin reaction.** If you experience tender red skin patches which then blister, please stop your capecitabine and seek urgent medical advice. The skin changes may follow symptoms such as fever, chest symptoms and a need to squint or close your eyes, which is worse in bright light (photophobia). These symptoms may be caused by conditions called Toxic Epidermal Necrolysis (TEN) and Stevens Johnson Syndrome (SJS) and if so, these require urgent treatment.

With certain side effects a treatment break or dose reduction may be necessary. If you have any concerns regarding these side effects, you can contact the hospital (see contact details on page 8).

Fertility, pregnancy and breastfeeding

- **Fertility** – chemotherapy can damage the testis or ovary. This may affect your ability to conceive (or father a child). Infertility can be temporary or permanent. Sometimes, in women, chemotherapy can lead to premature menopause. If relevant to you, you may wish to discuss the issue of fertility with your doctor before treatment is started.
- **Pregnancy** – during chemotherapy and for up to a year afterwards, if sperm or eggs are produced they may be abnormal. Treatment can also harm an unborn child. We recommend that you or your partner use a barrier method of contraception (such as condoms) during treatment and for one year afterwards. If you know you are pregnant before starting treatment or become pregnant during treatment, you must tell your doctor immediately.
- **Breastfeeding** – there is a risk of harm to a child who is being breastfed since the drug may be concentrated in the milk. It is very important that women do not breastfeed while receiving chemotherapy.

Blood clots

Some cancers increase the risk of developing blood clots. Chemotherapy drugs can also cause an increase in the risk of patients developing blood clots whilst they are on treatment. The most common place for blood clots to form is in the calf. This is called a deep vein thrombosis (DVT) and causes the leg to swell. If a part of the clot breaks free, it may travel to the lungs, causing shortness of breath or chest pain. This is called a pulmonary embolus (PE).

Blood clots can be life threatening and treatment with blood-thinning drugs (anti-coagulants) is usually given to help ‘dissolve’ the clot and prevent further problems. Please inform your doctor immediately if you are worried you may have a blood clot.

Airline travel is also associated with an increased risk of blood clots. It is important that you inform your hospital team of any travel plans whilst you are on treatment.

We have listed the most common side effects of this chemotherapy. You may experience some or several of these side effects listed above and they may be mild, moderate or severe. Some can occasionally be life-threatening or lead to death and occur in 0.5-5% of cases (less than one in 100 people). All side effects will be discussed with you, however please raise any questions that you may have with your medical team or Clinical Nurse Specialist (CNS).

As with all drugs, there may be other side effects not mentioned here that you may experience. Because of the risk of side effects, it is important that you:

- **Always** tell your doctor if you suffer from any of these side effects, or if you have experienced any new symptoms since your last visit. Your doctor can help you by giving you medication or advice, to reduce or stop these side effects from occurring in the future.
- **Always** tell your doctor about any other medicine you are taking or planning to take, including herbal and complementary therapies.
- **Always** consult your doctor before having any other procedure, for example, dental work or vaccinations.

Contact details

Please contact us if you have any concerns or queries:

Sutton

Medical Day Unit	020 8661 3174 (NHS patients)
Medical Day Unit	020 8661 6670 (Private patients)

Clinical Nurse Specialist/Key Worker

………………………………………………………………………………………

Tel: ……………………………………

Chelsea

Medical Day Unit	020 7808 2325 / 2320 (NHS patients)
Medical Day Unit	020 7811 8092 (Private patients)

Clinical Nurse Specialist/Key Worker

………………………………………………………………………………………

Tel: ……………………………………

Pharmacy Medicines Helpline: via the Hotline below (Monday to Friday, 9am – 5pm):

or

Email: *medicines.information@rmh.nhs.uk* giving full details of your enquiry and a contact telephone number.

Alternatively, please call:

The Royal Marsden Macmillan Hotline: 020 8915 6899 (available 24 hours a day, 7 days a week)

References

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
Telephone: Chelsea 020 7811 8438 / 020 7808 2083
Sutton 020 8661 3759 / 3951
Email: patientcentre@rmh.nhs.uk

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

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

Revised February 2023. Planned review February 2026

Radiotherapy and
Chemotherapy Services
F538021 & F538022