Fluorouracil (5-FU) for pancreatic cancer

This fact sheet is for people with pancreatic cancer who want to know more about the chemotherapy drug fluorouracil.

Fluorouracil is normally given together with other chemotherapy drugs to treat pancreatic cancer.

Each hospital may do thing slightly differently, and treatment will vary depending on your cancer. Speak to your doctor or nurse about your treatment.

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You can speak to our specialist nurses on our Support Line about any questions you have about chemotherapy. You can call them free on 0808 801 0707, or email nurse@pancreaticcancer.org.uk

Read about the other chemotherapy drugs used for pancreatic cancer at pancreaticcancer.org.uk/chemotherapydrugs

Read more about chemotherapy in our fact sheet Chemotherapy for pancreatic cancer, or on our website at pancreaticcancer.org.uk/chemotherapy
How is fluorouracil used?

Fluorouracil is normally given together with other drugs to treat pancreatic cancer.

- It can be used with folinic acid (leucovorin), oxaliplatin and irinotecan in **FOLFIRINOX**.
- It can be used with folinic acid and oxaliplatin in **FOLFOX**.

How is FOLFIRINOX used?

FOLFIRINOX can be used in different ways.

- If you have cancer that can be removed with surgery, you may be offered FOLFIRINOX after surgery to reduce the chances of the cancer coming back.
- If you have cancer that has grown close to major blood vessels near the pancreas, you may have FOLFIRINOX to try to shrink the cancer to make surgery possible.
- If you have locally advanced or advanced cancer and surgery is not possible, you may have FOLFIRINOX to try to control the growth of the cancer.

How is FOLFOX used?

FOLFOX may be used if you have locally advanced or advanced pancreatic cancer, and surgery to remove the cancer is not possible. It is used for people who have already had gemcitabine with capecitabine (GemCap) or gemcitabine with nab-paclitaxel.

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Read more about how chemotherapy is used in our fact sheet [Chemotherapy for pancreatic cancer](pancreaticcancer.org.uk/chemotherapy), or on our website at [pancreaticcancer.org.uk/chemotherapy](pancreaticcancer.org.uk/chemotherapy)

Read about GemCap and nab-paclitaxel at [pancreaticcancer.org.uk/chemotherapydrugs](pancreaticcancer.org.uk/chemotherapydrugs)
How is fluorouracil given?

You will have your chemotherapy at the hospital as an outpatient. This means that you will go into the hospital for treatment, but you won’t need to stay overnight.

Fluorouracil is given as an injection or an infusion into a vein. You may hear an infusion called a ‘drip’. You will have the infusion through a central line, which is a long tube that is put into a vein in your arm or chest. Part of the tube remains outside of the body and is attached to a drip to give you your chemotherapy.

Fluorouracil is normally given as part of the chemotherapy treatments FOLFOX or FOLFIRINOX (see page 2). These treatments are given in a two-week cycle. This is the time it takes to have your treatment and to have a break before the next cycle. The break allows your body to recover. The number of cycles you have will depend on your cancer and how the chemotherapy is affecting you. Your doctor or nurse can tell you more about your treatment cycles.

Read about central lines and how chemotherapy is given at pancreaticcancer.org.uk/havingchemotherapy

How is FOLFOX given?

On the first day of treatment you will have an infusion of oxaliplatin and folinic acid. This will take two hours.

You will then have an injection of fluorouracil into a vein – you may hear this called a bolus injection.

You will continue to have fluorouracil over 46 hours. This is given through a small pump that attaches to your central line. The pump also attaches to a belt, so that you can carry it around with you and have the fluorouracil infusion at home.

After 46 hours, the pump is disconnected at the hospital, or at home by a nurse. You will then have a break from treatment for 12 days.

Each chemotherapy team will give the FOLFOX drugs slightly differently. Speak to your chemotherapy team about how you will be given FOLFOX.

Read about how FOLFIRINOX is given at pancreaticcancer.org.uk/folfirinox
What are the side effects of fluorouracil?

Fluorouracil can cause side effects, but these can affect everyone differently, and you may not get all of the side effects mentioned here. Your chemotherapy team should give you information about any possible side effects and how to manage them. Make sure you ask them any questions you have. Knowing what to expect can help you deal with any side effects.

DPD-deficiency

Fluorouracil is broken down in the body by an enzyme called dihydropyrimidine dehydrogenase (DPD). Some people have lower amounts of the DPD enzyme – which is known as DPD-deficiency.

People with DPD-deficiency can have side effects that are much worse than usual, especially the first few times they have fluorouracil. These side effects include infections, runny poo (diarrhoea) and feeling or being sick. It is important to speak to your chemotherapy team if you think you may have DPD deficiency, or if you would like to know more about how this can affect your side effects.

Your chemotherapy team should give you an emergency number to call if you are unwell, or if you need information about any side effects. Your nurse will explain when to use this number. If you haven’t been given a number, ask your nurse about this.
Common side effects

Infection

Fluorouracil can increase your risk of getting an infection. **An infection is an emergency if you are having chemotherapy, and needs treating straight away.** Signs of an infection include:

- a high temperature
- feeling shivery and cold
- headaches and sore muscles
- a cough or sore throat
- having pain or burning when you pass urine
- feeling generally unwell or tired.

A high temperature is 37.5°C or 38°C depending on the advice of your chemotherapy team. If you have a high temperature, or any other signs of an infection, call your chemotherapy team on the emergency number, or go to A&E and tell them that you are having chemotherapy.

You should also phone if you suddenly feel unwell or have flu-like symptoms, even if your temperature is normal or low (a low temperature is 35°C and below).

Read more about infections and how they can be treated in our fact sheet [Chemotherapy for pancreatic cancer](pancreaticcancer.org.uk/chemotherapy), or at pancreaticcancer.org.uk/chemotherapy.

Anaemia (feeling tired or dizzy)

Fluorouracil can lower the number of red blood cells in your blood. This is called anaemia, and can make you feel tired, dizzy or short of breath. If your red blood cell level is very low, you may need to be given blood through a drip. This is called a blood transfusion.
**Bruising and bleeding**

Fluorouracil can lower the number of platelets in your blood – this is called thrombocytopenia. This can cause you to bruise more easily than normal, and you may be more likely to have nosebleeds or bleeding gums.

Speak to your chemotherapy team straight away if you get any of these side effects. If you have a nosebleed that doesn’t stop after five minutes, call your chemotherapy team who will be able to help.

**Fatigue (extreme tiredness)**

Fatigue is a common side effect of fluorouracil. It isn’t the same as feeling tired. Fatigue can make you feel weak and have problems concentrating. Some people find that the fatigue starts a few hours to a few days after having chemotherapy, and starts to get better after a few days. There are things that you can do to help with fatigue.

**Feeling or being sick (nausea or vomiting)**

This is a common side effect of fluorouracil. You will normally be given anti-sickness medicines before your chemotherapy starts. If these medicines don’t help, speak to your chemotherapy team about changing to a different medicine.

**Runny poo (diarrhoea)**

If you have diarrhoea, make sure you drink lots of water. If you have it more than four times a day, tell your chemotherapy team. They can give you medicines to control it.
**Loss of appetite**

During your treatment you may not feel like eating, and you may start to lose weight. Try to eat small meals often. If your appetite doesn’t get better after a few days, tell your doctor or dietitian.

Read our tips for coping with diarrhoea and a loss of appetite at pancreaticcancer.org.uk/diettips

**Sore mouth or mouth ulcers**

Fluorouracil can make your mouth sore, or cause mouth ulcers which can be uncomfortable. Tell your chemotherapy team about any problems you have with your mouth. They can make sure you don’t have a mouth infection, and give you a mouthwash which should help.

**Sore hands and feet**

Fluorouracil can make the palms of your hands and the soles of your feet red and sore, and your skin may start to peel or blister. Your doctor or nurse may give you a vitamin or creams to help with this. The soreness normally gets better when your chemotherapy finishes.

**Hair loss**

Fluorouracil may cause your hair to thin, or you may lose some hair – but it should grow back once your treatment stops.

Read about hair loss in our fact sheet Chemotherapy for pancreatic cancer, or on our website at pancreaticcancer.org.uk/chemotherapy
Less common side effects

- **Heart problems.** Fluorouracil can cause chest pain. It can also make you feel short of breath, dizzy, or cause an irregular heartbeat. It is important to call your chemotherapy team straight away if you have any of these symptoms. Or go A&E and tell them that you are having chemotherapy.

- **Eye problems.** Fluorouracil can cause sore, itchy or watery eyes. Tell your doctor or nurse if this happens, as they may need to give you some eye drops. Some people get blurred vision, but this is less common.

- **Skin changes.** Fluorouracil can make your skin darken or become more sensitive to the sun. Use a high factor sun cream if you are going outside. These changes normally get better when your treatment finishes.

- **Headaches.** Fluorouracil can cause headaches. Tell your chemotherapy team if you have headaches, they can give you painkillers such as paracetamol or ibuprofen to help. Always check your temperature before taking these painkillers. If your temperature is high, call your chemotherapy team on the emergency number straight away.

- **Risk of a blood clot in a vein.** Fluorouracil can increase your risk of a blood clot in a vein, although this is very rare. If you have any pain or swelling in one of your arms or legs, or you feel very short of breath, call your chemotherapy team straight away, or phone an ambulance. **A blood clot is serious if it isn’t treated.**

Speak to your chemotherapy team if you experience anything unusual, or if you would like more information.

Read more about blood clots in a vein, and the symptoms, on our website at [pancreaticcancer.org.uk/bloodclots](http://pancreaticcancer.org.uk/bloodclots)

If you have any questions about fluorouracil or side effects, you can speak to our specialist nurses on our free Support Line.
Further information and support

Pancreatic Cancer UK services

We are here for everyone affected by pancreatic cancer.

We’re here to support and listen

Our free and confidential Support Line is a lifeline for thousands of people affected by pancreatic cancer. Our specialist nurses understand the issues you might be facing and their expert help will support you in coping with pancreatic cancer.

Call free on 0808 801 0707 weekdays 10am-4pm, or email nurse@pancreaticcancer.org.uk

We’re here with the information you need

We have the most up-to-date information on everything you need to know about pancreatic cancer. We can help you every step of the way through diagnosis and treatment options to managing your symptoms and the care you receive.

Go to pancreaticcancer.org.uk/informationandsupport

Download or order our free publications at pancreaticcancer.org.uk/publications or call 0808 801 0707

Find an A-Z of medical words at pancreaticcancer.org.uk/medicalwords

We’re here so you can share

Our Forum is a supportive place where everyone affected by pancreatic cancer can be there for each other online, any time of day or night: forum.pancreaticcancer.org.uk

Our Living with Pancreatic Cancer Support Days provide local face-to-face support in an informal setting for people with pancreatic cancer: pancreaticcancer.org.uk/supportdays

Local support groups mean you can meet other people to share your experiences: pancreaticcancer.org.uk/supportgroups
Useful organisations

Cancer Research UK
www.cancerresearchuk.org
Helpline: 0808 800 4040 (Mon-Fri 9am-5pm)
Information for anyone affected by cancer.

Healthtalk
www.healthtalk.org
Personal experiences presented in written, audio and video formats, including people talking about pancreatic cancer.

Macmillan Cancer Support
www.macmillan.org.uk
Support Line: 0808 808 00 00 (Everyday 8am-8pm)
Provides practical, medical and financial support for anyone affected by cancer.

Maggie’s Centres
www.maggiescentres.org
Tel: 0300 123 1801
Centres around the UK and online offer free, comprehensive support for anyone affected by cancer.
This fact sheet has been produced by the Support and Information Team at Pancreatic Cancer UK.

We make every effort to make sure that our services provide up-to-date, accurate information about pancreatic cancer. We hope that this information will add to the medical advice you have had, and help you make decisions about your treatment and care. This information should not replace advice from your medical team – please speak to your doctor, nurse or other members of your medical team about any questions.

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- Pancreatic Cancer UK Specialist Nurses

Email us at publications@pancreaticcancer.org.uk for references to the sources of information used to write this fact sheet.

Give us your feedback

We hope you have found this information helpful. We are always keen to improve our information so let us know if you have any comments or suggestions. Email us at publications@pancreaticcancer.org.uk or write to our Information Manager at the address below.

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