Royal Papworth Hospital
NHS Foundation Trust

What are antibiotics?

A patient's guide

The aim of this leaflet is to provide you as a patient and/or a carer, with important information to enable you to use antibiotics as safely and effectively as possible.

Antibiotics are medicines used to treat infections caused by bacteria. They work by either killing bacteria or preventing their growth and multiplication. Different types of antibiotics are used to treat different kinds of infection and can be given or taken in a variety of ways e.g. by mouth or by injection, depending on the severity of the infection. In the UK, most antibiotics are only available on prescription.

When should antibiotics be used?

Antibiotics do not work against infections caused by viruses (such as colds and flu, coughs and sore throats) or fungi (such as athlete's foot). They are only effective against infections caused by bacteria.

Your doctor will only prescribe antibiotics when you need them, eg to treat a wound infection or a chest infection. Antibiotics may be life-saving for infections such as meningitis or endocarditis.

If you are having a heart or lung operation or procedure at Papworth, you will be given antibiotics just before your operation and in the 24 hours following your surgery or procedure to prevent an infection. This is known as surgical prophylaxis.

Before your operation or procedure you will also be screened to see if you are carrying bacteria on your skin called 'Methicillin-Resistant Staphylococcus aureus' or MRSA for short.

Some people are not aware that they are carrying MRSA on their skin or in their nostrils. This does them no harm and they have no symptoms. However, vulnerable patients can become severely ill if they come into contact with these bacteria. This is why we need to know if you are carrying MRSA on your skin.

If you are found to have MRSA, you will be asked to follow specific procedures to attempt to eliminate it from your skin. A separate leaflet entitled 'MRSA - A guide for patients and visitors' has been written to provide you with more information about MRSA and help answer any questions you might have about it.

If you have not been screened or you are not sure whether you have been screened for MRSA, please let your nurse, doctor or pharmacist know.

Some patients with a compromised or 'weak' immune system or who are on medicines to suppress their immune system, eg patient's who have had a heart and/or lung transplant, are not able to fight off bacterial infections easily.

These patients are sometimes prescribed antibiotics to take all the time to prevent them from getting an infection. This is known as 'long-term antibiotic prophylaxis'.

Over-use of antibiotics causes bacteria to become resistant to antibiotic treatments. This means that when you need antibiotics in the future they may no longer be helpful.

Why can't different antibiotics be used to treat resistant bacteria?

They can, but they may not be as effective. They may have more side effects and eventually the bacteria will become resistant to them too.

We cannot be sure we will always be able to find new antibiotics to replace the old ones. In recent years fewer antibiotics have been discovered so we must look after the antibiotics we have by using them carefully.

We cannot stop resistance occurring, but we can do a lot to slow it down and stop it spreading.

Remember: Antibiotics won't work in the case of cold or flu!

How to take antibiotics

Antibiotics are usually taken by mouth, but can sometimes be given into a vein (intravenous), into a muscle (intramuscular) or applied to the affected body area eg skin, eyes or ears as drops, lotion or ointment (also known as topical).

Some antibiotics should not be taken with certain foods or alcohol. Others are best taken when there is no food in your stomach, usually an hour before or two hours after eating. Always follow the instructions on the label or patient information leaflet.

When a doctor has confirmed that antibiotics are necessary, it is very important to take the antibiotics in a responsible manner.

Antibiotic misuse causes bacteria to become resistant to antibiotic treatments, therefore it is important to finish the full course and take the correct dose at the right time to kill all the bacteria causing the infection.

Do not give antibiotics to friends, family or pets and do not keep left-over antibiotics. If you have received more doses than you were prescribed, ask your pharmacist about how to dispose of the remaining medicines.

Remember: Take antibiotics responsibly!

Special care

You should speak to your doctor before taking an antibiotic if you have any liver or kidney problems.

Tell your doctor or pharmacist if you are pregnant or breastfeeding before taking any antibiotic.

Side-effects of antibiotics

The most common side-effects with antibiotics are diarrhoea, nausea and vomiting.

Often you may get no obvious side-effects from antibiotics. However if you do and your symptoms persist, then contact your doctor.

After treatment with certain antibiotics, you may get a fungal infection such as 'thrush'. This is because antibiotics may destroy your body's 'good' bacteria that help to control overgrowth of bugs like fungi, as well as the 'bad' bacteria.

Allergies

Some people can be allergic to antibiotics, particularly penicillin and similar medicines such as cephalosporins.

They may experience side-effects such as a rash, swelling of the face and tongue and difficulty breathing when they take antibiotics. This is called an anaphylactic reaction and it can be serious or even fatal.

Remember: Remind your doctor, nurse or pharmacist of any allergies before you receive antibiotics!

Interactions with other medicines

Certain antibiotics can stop the contraceptive pill working properly: your pharmacist will advise you if you need to take additional precautions and for how long.

If you have diarrhoea or vomiting while taking an antibiotic, your pill might not be properly absorbed. In this case you should use additional contraception while you are taking the antibiotic and for a further 7 days after finishing the course.

There are a number of important interactions between antibiotics and other medicines so it's important to check with your doctor or pharmacist before you take any other medicines or herbal remedies at the same time as your antibiotic.

Resistance to antibiotics

Bacteria evolve rapidly - they adapt and find ways to survive the effects of antibiotics. They become 'antibiotic resistant' so that the antibiotic no longer works.

Antibiotic resistance is growing. If you take antibiotics when you do not need them, they may lose their ability to kill bacteria. If the bacteria keep 'overpowering' the medicines we have, we may run out of ways to kill these bacteria.

Taking antibiotics when they are not needed and not taking them correctly, for example, just when you remember or in a low dose, will lead to more bacteria becoming resistant to them.

This is why it is important to finish the course of antibiotics even if you feel better.

Remember: Always complete your course of antibiotics even when you start to feel better!

For further information

- Ask your doctor, nurse or pharmacist
- Papworth Medicines Helpline 01480 364739
- Contact the NHS on 111 or you can check your symptoms on 111.nhs.uk

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