

Antipsychotic medication: A brief introduction



The NIHR CLAHRC Greater Manchester is part of the National Institute for Health Research and is a partnership between providers and commissioners from the NHS, industry, the third sector and the University of Manchester

How do antipsychotic drugs work?

Our brains make a chemical called dopamine [DOH-pa-meen]. Deep inside the brain, in a part called the "striatum" [str-eye-ATE-um], one lot of nerve cells lets out dopamine and another picks it up. Changes in the amount of dopamine signal to the rest of the brain that something important and unexpected is happening. Sometimes these cells make too much dopamine and let out more than normal. This tells the brain that everyday random things have some sort of meaning and are in some way important (for example, car number plates). When this happens, someone suffers a psychosis [si-KOH-sis]. They sometimes hear voices when no one is there, they are sometimes sure of things for no obvious reason, or sometimes they can't think straight.

Antipsychotic [anti-SI-ko-tic] drugs block this effect of dopamine in the brain. They stop the nerve cells in the striatum that pick up dopamine from doing this. When most people take them, the psychosis starts to improve. It can take a few weeks to get the full benefit. For some people they do not work very well. We are not yet sure why.

Clozapine

One antipsychotic drug, clozapine [CLOZ-a-peen], treats symptoms better than the others. We are not sure why. It has many side effects, so health professionals only give it to people when other antipsychotics have not worked. In one study of people who had been ill for a few months it helped about three people in every four who took it. When people have been ill for longer, it might work less well, making a useful difference about half the time.

Depot antipsychotics

Some people take antipsychotics as an injection instead of as tablets. These are called depot [de-POH] or long-acting injections. The drug is released slowly into the body from wherever it was injected (usually in the bottom, the thigh, or for some drugs, the shoulder muscles). Most people have injections every two or four weeks. This means that they do not have to remember to take tablets every day.



Side effects

Different antipsychotics have different side effects. Side effects are more likely at higher doses. Below certain doses, some side effects may not happen. This level differs from person-to-person, so it can be hard to get the dose right. If the dose is too low the antipsychotic will not work.

Some people's side effects are worse than others. It is also true that some people find it easier to deal with side effects than others. So different drugs suit different people better. Common side effects are sleepiness, hunger and weight gain, dizziness when you stand up, dry mouth, constipation, sexual side effects, and movement side effects. Movement side effects include muscle stiffness and slowness, a tremor, and restlessness (or "akathisia" [AY-ka-this-ia]). Often sleepiness, dizziness on standing, and movement side effects improve after a few weeks on the drug.

Some antipsychotic drugs can cause diabetes, high cholesterol, or high levels of a hormone called prolactin. There are some helpful websites that can give you information about the side effects of each drug: www.choiceandmedication.org.uk and www.rcpsych.ac.uk/healthadvice.aspx.

If you have any concerns about side effects please talk to your doctor, nurse or pharmacist.

How well do antipsychotic drugs work?

Three out of every four people who get psychosis for the first time find that the psychosis improves when they take antipsychotics. Many studies have compared antipsychotic medications to placebos (tablets with no drugs in them) for people who have relapses of psychosis. It looks like perhaps half of the people who take antipsychotics to prevent relapse get more benefit than those who take placebos.

Many people carry on with antipsychotics long-term to stop relapses happening again. These studies show that people are less likely to have a relapse when they take antipsychotics compared to when they take placebos.

In most studies, one person in every four taking long-term antipsychotics relapsed in the next year or so. About two people in every three taking a placebo (instead of antipsychotics) relapse.



How soon can I stop medication?

Studies tell us that taking antipsychotics will help to avoid relapse for at least a couple of years after a first illness, maybe even five years. On the other hand, antipsychotics have many side effects so nobody wants to take them for longer than they need to.

Doctors do not agree how safe it is to stop antipsychotic drugs in the first two years, or even how safe it is after that. Studies show that about half the people who have been well for years and who gradually stop taking antipsychotics will get the psychosis again within a couple of years, but half will not.

So some people can stop their drugs and do well but many relapse and end up taking more drugs as a result. People who relapse more often in the early years of psychosis are more likely to commit suicide. For these reasons, psychiatrists are cautious about advising people to stop their medication, even though it can avoid side effects. If you plan to do this talk to your healthcare staff first.

Antipsychotic drugs are not addictive. People do not crave taking them the same way they crave cigarettes or heroin or even chocolate. But our bodies and brains get used to almost any drug, so it is a good idea to stop them gradually, so our brains have time to adjust.



Produced by Dr Richard Drake, Professor Karina Lovell, Ms Rebecca Pedley, Dr Penny Bee and Dr Helen Brooks on behalf of the NIHR CLAHRC Greater Manchester.

With special thanks to our service user and carer panel whose expertise helped to develop the content of this leaflet.

Thank you to the following for use of their images:
Front image – **More Than Minutes**
Illustration of brain – **J E Theriot.**

The NIHR Collaboration for Leadership in Applied Health Research and Care (CLAHRC) Greater Manchester is part of the National Institute for Health Research and is a partnership between providers and commissioners from the NHS, industry, the third sector and the University of Manchester.

©Salford Royal NHS Foundation Trust, 2016. All rights reserved. Not to be reproduced in whole or in part without the permissions of the copyright owner.