Clozapine

Information for service users and carers
The purpose of this leaflet is to give you some general information about Clozapine and should be read in conjunction with the official service user information leaflet supplied with the medication.

You may find out more information from other sources. Remember, some sources of information are more accurate than others. Your healthcare professional should be able to point you in the right direction or give you further information.

You may wish to go through this booklet with your named nurse, Community Psychiatric Nurse (CPN) or doctor, so that they can explain any parts or answer any questions you may have. You may also contact the Clozapine Clinic if you have any questions. This booklet contains a lot of information so you may wish to read part of it and then return to it later.

Information for initiation and monitoring on Clozapine

What is Clozapine?

Clozapine is an antipsychotic drug that first became available in the UK in 1989 and is used in the treatment of people with schizophrenia. It is used for treatment resistant schizophrenia (TRS) i.e. for people who have either tried at least two other antipsychotic medications and did not benefit sufficiently, or those who are unable to tolerate other antipsychotics because of their side effects. Approximately 30% of people with schizophrenia fall into these groups.

You may wish to discuss this with your prescriber.

Clozapine is also used in the treatment of severe thought disturbances associated with the drug treatment of Parkinson’s disease. It should only be used when other treatments have not worked.

Starting Clozapine

Before you start Clozapine your doctor will ask you questions about your general health, carry out a physical examination and take a blood test to make sure you have the normal number of white blood cells in your blood.

Rarely, Clozapine has been reported to cause side effects on the heart. For this reason, your doctor might also want a trace recording of your heart (an electrocardiogram or ECG) before you start Clozapine.
It is important that you tell your doctor about any medical problems or illness that you have or have had in the past, e.g. past history of low white blood cell counts, heart, liver or kidney problems, seizures or fits. As with all medicines, Clozapine may interact with other drugs. This means that it is important to tell your doctor if you are taking any other medications which have been prescribed, or that you have bought yourself, including herbal preparations. If all is satisfactory, you will be registered with ZTAS the monitoring company. (See page 5)

What dose do I need?

Your doctor will start you on a low dose. This is to keep any unwanted effects (side effects) to a minimum. The dose you will be asked to take will be increased gradually until it has a positive effect.

A typical schedule would be 12.5 mg once or twice on day 1, increased to 25 mg once or twice on day 2. However titration (gradual dose increase) may vary depending upon your doctor, your response to treatment and your medical history.

Over the following two to three weeks your dose will be increased gradually by 25 mg to 50 mg a day, until you are taking the dose which your doctor believes will give you the most benefit. This can be up to a maximum of 900 mg per day.

If you are an older service user or you have a condition such as epilepsy, heart, kidney or liver disease, your dose of Clozapine will be increased more slowly.

Once you are stabilised on the most effective dose of Clozapine for you, you must be patient and continue taking the medication, even if you do not immediately notice any beneficial effect. In some people, Clozapine starts to work within a few days while others may have to wait for a few months.

Blood monitoring

Why is it needed?

While Clozapine has been proven to be very effective at treating schizophrenia, it can occasionally reduce the number of white blood cells in your body. The types of white blood cells specifically affected are called neutrophils, which are responsible for fighting infection.

A small fall in the number of these cells leads to a condition called neutropenia, whilst a more dramatic reduction is called agranulocytosis. As
the number of neutrophils decreases, you may be more vulnerable to infections. If they reach a very low level (agranulocytosis), you may be at risk of developing a very serious infection.

Blood tests are important because the drop in the number of white cells may not cause any symptoms until you have actually developed an infection. Checking the number of white blood cells on a regular basis helps to detect any changes early on before they cause problems. You will not be allowed to receive Clozapine unless you have an up-to-date blood result.

**Monitoring for agranulocytosis and neutropenia**

Agranulocytosis only happens to a very small number of people who take Clozapine (less than 1%). Neutropenia, the milder form of agranulocytosis, occurs in an additional 3% of people who take Clozapine. The majority of cases of agranulocytosis and neutropenia occur in the first 18 weeks of treatment with Clozapine. Because it is not possible to predict who will develop the condition, and because it can occur without any symptoms, everyone who is treated with this medicine must be carefully monitored for as long as they take it. The monitoring consists of regular blood tests that measure the number of white cells in the blood. Anyone who develops agranulocytosis or neutropenia whilst taking Clozapine will not normally be able to receive it again.

**How often are blood tests needed?**

You will need to have an initial blood test to check that you have a normal level of white blood cells before you first start on Clozapine. If this is OK and you begin treatment with Clozapine, you will need to have a blood test on day 3 of treatment and then every week for 18 weeks. After this time, your blood tests will be reviewed. If all is well, testing can change to once a fortnight.

Once you have been on treatment for a year, you should only need a blood test once every four weeks for as long as you continue taking Clozapine and for four weeks after you stop treatment.

The need for blood tests becomes less frequent the longer you are on Clozapine because the risk of agranulocytosis is greatest during the first 18 weeks of treatment. Your
risk is reduced after those first few months and again after the first year.

How does monitoring work?

Clozapine blood monitoring is organised by the manufacturer IVAX through a system call Zaponex Treatment Access System (ZTAS). You are required to attend a Clozapine clinic where they will monitor your blood pressure, pulse, weight and temperature. Blood samples will be taken and they will then be sent off to a laboratory. A review of any side effects you may be experiencing (see page 8) and all results will be returned via a website to the Pharmacy Department and the Clozapine clinic.

Results

The blood tests can produce the following results:

- **Green results:** Normal blood test – you can continue to receive treatment

- **Amber results:** Your blood test is still within the normal limit, but is in the caution range. This means you can continue to take your tablets, but will need a blood test sooner than you would normally to make sure everything is OK. You will need to have a blood test twice a week until your result is green again; this may only be one additional test but could be more

- **Red results:** This means that you have a low number of white blood cells and ZTAS will contact your doctor immediately. Your treatment team will arrange an emergency blood test to confirm the result of the first test.

Your treatment will be **stopped immediately** until that result is available and you will be advised by clinic staff about any medications you can continue to take. If the number of white cells in your blood is confirmed to be low, you will not normally be able to have Clozapine again. Your treatment team will monitor you closely with daily blood tests until the number of white cells in your blood returns to normal. You may need to be referred to a specialist doctor (haematologist).

How else can regular blood testing help me?

Although the most important reason for regular blood testing is to detect agranulocytosis or neutropenia, when you have blood tests you also
benefit from regular contact with your treatment team. Such regular meetings provide an opportunity for your team to:

- Assess your progress, address any concerns you may have and answer your questions
- Ask you whether you have had any side effects and take action to minimise them
- Give you an ongoing health check
- Meet your family or carers if appropriate
- Obtain prompt referral to other teams if necessary
- Carry out periodic additional blood tests to make sure your blood sugar, cholesterol and lipids are normal.

What if I miss a blood test?

If you miss or forget to attend the clinic to have a blood sample taken, you cannot be given any more Clozapine tablets. This is because it is essential that your doctor is aware of your white blood cell levels before a repeat prescription for Clozapine can be issued. If you are unable to attend the clinic, you must inform the staff there to make other arrangements.

Taking Clozapine

How long will it take before Clozapine begins to work and does it work for everyone?

Some people feel the benefit of their Clozapine treatment within a few days, whilst other people do not feel the full benefit until they have been treated for a few months to a year. Studies have shown that about one third of people with treatment resistant schizophrenia who are given Clozapine show an improvement within the first six weeks. About two thirds show an improvement after one year of treatment. Therefore, it is important to be patient and give your treatment a chance to work.

Generally, Clozapine treatment should be continued for at least six months, unless you develop a side effect that means you have to stop the medicine.

It has been shown that about six out 10 people with treatment-resistant schizophrenia will benefit from taking Clozapine. Some do very well and others will be a bit better. Unfortunately, as with all medicines, some people do not respond.
How will I know that Clozapine is working?

You may find that your relatives, friends or carers notice the reduction in your symptoms before you do.

Eventually, you may notice any or all of the following:

- You feel better and become less withdrawn and more able to be involved in life around you
- Some of your symptoms gradually ease and you find your ability to concentrate improves
- Your relationships improve and you find it easier to socialise and mix with people
- If you have a problem with aggression or violence, you feel less aggressive and more able to control your anger
- If you are in hospital you may become well enough to go home
- If you are unemployed you can get and hold on to a job, or you are able to enrol on a course and study.

How long should I take Clozapine for?

You should continue to take Clozapine for as long as your doctor prescribes it for you. You must not stop taking the Clozapine just because you are feeling better. If you stop taking it, you will probably find that your original symptoms will reappear. If your doctor decides that you should stop taking Clozapine for any other reason apart from neutropenia, it is important that the dose is reduced gradually over a period of time. Your doctor or your clinic will give you a schedule for withdrawal from Clozapine.

What happens if I forget to take a dose?

Don’t worry if you find you have forgotten to take a single dose. Take another dose as soon as you remember if it is within four to six hours. However, if it is nearly time for you to take your next medication, it is important that you do not make up a missed dose by doubling the number of tablets you take.

If you forget to take Clozapine for more than 48 hours, you must contact your doctor or the clinic you normally attend immediately. You will
not be able to carry on with the dose you normally take. Your doctor will tell you what dose to take and for how long. This would usually involve gradually increasing the medication to your normal dose, so that you do not experience severe side effects. It is important that you follow these instructions.

**Can I go on holiday?**

If you decide to go on holiday while taking Clozapine, it is important that your blood is monitored during this time. If your blood can’t be monitored while you are away, you cannot continue to take Clozapine. It is possible to take a holiday both within the United Kingdom and abroad, but you should talk to one of the clinic nurses for advice before booking your holiday so that appropriate arrangements can be made. The length of your holiday may be restricted by how often you are monitored (weekly, fortnightly or every four weeks), although arrangements can be made for you to be seen early if your clinic appointment coincides with a holiday.

**Are there any side effects?**

Clozapine can cause side effects in some patients. Introducing Clozapine gradually as described in the section on starting Clozapine, will help to reduce the occurrence of side effects. Some patients do not notice any side effects with this medication, or they may wear off after some time.

However the most common ones are:

- Reduced white blood cell count
- Excess formation of saliva
- Changes in blood pressure
- Drowsiness and fatigue
- Dizziness
- Headache
- Faintness or light-headedness
- Blurred vision
- Dry mouth or increased sweating
- Rapid heart beat
- Nausea (feeling sick) and vomiting
- Loss of appetite
- Constipation
- Tremors
- Restlessness and agitation
- Urinary incontinence or retention
- Weight gain
- Epileptic fits (seizures)
• Fever and changes in body temperature
• Spontaneous uncontrolled movement of parts of the body.

Tell your doctor straight away if you have any of these side effects, or if you experience any side effects not mentioned in this list.

Some side effects may be caused by two or more medicines interacting with one another. It is therefore very important that your doctor knows of any other medicines you are taking. This includes ones you buy over the counter yourself and any herbal remedies you take regularly.

Alcohol, caffeine and smoking can affect Clozapine. You are advised not to drink alcohol while taking Clozapine. It is also important that you do not make any significant changes in the number of caffeine-containing drinks (for example tea, coffee, cola) that you consume. Patients should inform the clinic if they have managed to quit smoking or decided to stop taking caffeine, as a serum sample will be needed.

Side effects will be monitored at the Clozapine clinic, where you will be given advice on how to manage any of the side effects you may be experiencing.

Further general advice

Temperature or infections

It is important that you tell your doctor immediately if you develop any sign of an infection such as a raised temperature or sore throat or other flu-like symptoms. Your doctor will arrange for a blood test to check the white cell count in your blood. If this test gives a normal result, you should be able to continue taking Clozapine.

There is no reason why you should not have the flu vaccine while you are taking Clozapine. However, you must remember that the flu vaccine does not prevent all chest infections. If you feel unwell you should consult your doctor.

Other medications

Some medicines can interfere with your Clozapine treatment. It is important that you check with your doctor or pharmacist before taking any other medicines, even if they are herbal medicines or medicines that you have bought yourself at a chemist.

Illicit or street drugs such as cannabis and ecstasy can trigger psychotic episodes and therefore should be
avoided at all costs. If you have drug dependence, you can talk to your treatment team in confidence.

**Driving and using machinery**

Feeling sleepy is a common side effect of Clozapine, particularly when Clozapine is first started. Therefore driving or operating machinery should be avoided, especially during the initial weeks of Clozapine treatment. When you are established on your medication, you can discuss driving with your psychiatrist.

**Contraception, pregnancy and breast feeding**

It is not known whether Clozapine is safe to take during pregnancy. Therefore, if you think you are pregnant, tell your doctor immediately. Also tell your doctor if you are trying, or thinking of trying for a baby.

Clozapine can be passed through a mother’s milk to her baby, so mothers taking Clozapine should not breast feed.

**General anaesthetics**

If you ever need to have a general anaesthetic you will probably have to stop taking your Clozapine for 12 hours before and 12 hours after the anaesthetic. Your anaesthetist (the doctor who puts you to sleep) will need to know that you are taking Clozapine, as it can interact with some anaesthetic medicines. Please remember to tell the anaesthetist that you are taking Clozapine and be prepared to give him/her a list of any other medicines you are also taking.

**Measuring the amount of Clozapine in your blood**

Occasionally, your doctor may wish to check the level of Clozapine that is in your bloodstream. This is usually done to find out whether you are on the right dose of Clozapine, particularly if your symptoms have been hard to control or if you have developed side-effects to Clozapine. Your doctor or nurse will take a small amount of extra blood and the results will help him/her decide whether you need to have your dose of Clozapine increased or decreased. For this test you need to omit your morning dose of Clozapine. The clinic staff or your doctor will advise you when you need to do this.

**The Clozapine clinics**
You will be told which day and time you should come to the clinic. If for any reason you cannot attend, please contact the clinic on the numbers below as soon as possible, so that alternative arrangements can be made. You will also be told where and when to collect your medication from.

The purpose of the clinic is to monitor both your mental and general health.

During your visit, some blood will be taken and any other tests necessary will be carried out. You will have a chance to discuss the need for these, along with what the results mean for you. You will be asked about problems or side effects you may be experiencing, and then given advice on how to manage them. You will also be given the chance to talk about healthy life choices and other activities for you to join in.

ROtherham
The Rotherham Clozapine clinic is open on:
Tuesday 9.30am – 4.00pm
Wed. and Thurs. 1.00pm – 4.00pm.
The clinic is located at
Ferham Clinic
Kimberworth Road,
Rotherham,
S61 1AJ.
The clinic coordinator of the service is contactable on Monday to Friday from 8.30 am to 4.30 pm to answer any questions you may have on:
Telephone (01709) 447638 or the reception on (01709) 302525.

Doncaster
The Doncaster Clozapine clinic is open on:
Tuesdays 9.00 am to 4.00 pm
Wednesdays 9.00 am to 3.00 pm
It is located on the St Catherine’s site at
Bungalow 4,
St. Catherine’s Close,
St. Catherine’s
Balby,
Doncaster
DN4 8QN.
The clinic co-ordinator is contactable on telephone (01302) 798401 (reception), or 07775 994972 (clinic mobile).
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