

## Clozapine

Clozapine is used to treat schizophrenia in patients when other medicines have not worked. It belongs to the group of antipsychotics called the atypical antipsychotics, which do not cause rigidity and shakiness associated with the older drugs.

### Negative & Positive symptoms

Clozapine not only helps with the common symptoms of the illness like hearing voices, odd beliefs and paranoia (positive symptoms) but also with the lack of motivation and poor social interaction (negative symptoms).

### Monitoring

Before starting Clozapine patient undergoes routine blood tests and is registered with a monitoring services (Clozapin Patient Monitoring Service/Ztas etc). This is because very rarely Clozapine can lower the number of white blood cells or can cause malfunction of these cells. White cells are important because they fight infections. The risk of dropping the white cell count is 3 in 100 and of malfunctioning is 1 in 5000. In order to monitor for these side effects patients taking Clozapine have weekly blood tests for the first 18 weeks of treatment, then fortnightly for the first year of treatment. Thereafter blood tests are done on a monthly basis. If you develop a sore throat or fever, inform your doctor.

### Side effects

Common side effects are sedation, increase in salivation, fluctuation in blood pressure, increased heart rate and increase in body temperature. These side effects normally settle within the first 4 weeks. Patients also experience constipation and weight gain. These can be managed by high fibre diet and advice from dietician. On higher doses it can also cause fits which can be managed with other medication.

### Dosage

The normal starting dose of Clozapine is 12.5 mg and it is gradually increased over a period of weeks to a daily dose between 300 and 450 mg. It is usually given in a twice daily dose. At times higher dose is needed. Maximum daily dose is 900 mg/day. If you miss your dose for more than two days, Clozapine will have to be restarted at 12.5 mg and will again need to be built up to dose which was found to be helpful.

### Levels

Therapeutic Clozapine level is between 350-420 micrograms but it is best to be guided by the mental state. Norclozapine levels can be done to check compliance. Lower doses are required in non smokers and elderly females. Levels can be increased by enzyme inhibitors like Fluvoxamine.

### Mention only if asked

Persistent tachycardia can be because of myocarditis or cardiomyopathy. Myocarditis is usually an early complication and cardiomyopathy a late one but this is not a hard and fast rule. Other serious side effects are PE and sudden death.

If Clozapine does not work-what next? Augmentation with:  
Sulpride/Amisulpride

Risperidone  
Lamotrigine  
Omega 3 triglycerides  
Haloperidol

Ward observations/monitoring by CPN if started in the community (for two weeks)

Temperature-can be as high as 38 degrees C

Pulse rate

Blood pressure and postural drop

Level of sedation