

COMT inhibitors are a class of medication used in the treatment of Parkinson's disease (PD). PD is a chronic and progressive neurological disorder that primarily affects movement, and is caused by the degeneration of dopamine-producing neurons in the brain. Dopamine is a neurotransmitter that plays a key role in the regulation of movement, mood and cognition.

In PD, there is a decrease in dopamine levels due to the degeneration of dopamine-producing neurons. This results in the motor symptoms of PD, including tremor, rigidity, bradykinesia (slowness of movement), and postural instability.

COMT inhibitors work by blocking the activity of an enzyme called catechol-O-methyltransferase (COMT), which breaks down dopamine in the brain. By inhibiting the activity of this enzyme, the medication increases the levels of dopamine in the brain, which can help to improve the motor symptoms of PD.

There are three COMT inhibitors available in the treatment of PD: entacapone, opicapone and tolcapone. Entacapone is a short-acting medication that is usually given in combination with levodopa and carbidopa, two other medications used in the treatment of PD. Opicapone is a longer-acting medication that is used in patients who have not responded well to other medications.

COMT inhibitors can be used alone or in combination with other medications for PD. They can help to improve motor symptoms such as tremor, rigidity, and bradykinesia, and can also help to reduce fluctuations in motor function that can occur with levodopa therapy. However, they may also cause side effects such as nausea, vomiting, and diarrhoea.

It is important to work closely with your specialist to determine the best treatment plan for managing PD symptoms. Treatment plans may also include medications, physical therapy, occupational therapy, and other supportive therapies.