Clozaril

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Recommended Citation
https://spark.parkland.edu/nsps/107
Dosing: 12.5 mg

How Supplied:
Oral Tab: 25 mg, 50 mg, 100 mg, 200 mg
Oral Tab Orally Dis: 12.5 mg, 25 mg, 100 mg, 150 mg, 200 mg
Oral Susp: 1 mL, 50 mg

Tablets per Chosen Dose:
12.5 mg [1 tablet/12.5 mg] = 1.00 tablet

Water Solubility Literature Value:
11.8 mg/mL

Converting Solubility’s Numerical Value to g/100 ml:
11.8 mg/L (1 g/1000 ml) / (100/100) = 1.18 x 10^-1 g/100 mL, insoluble

Calculating Molar Mass:
18 moles C (12.01 g/mol) + 1 Cl (35.45 g/mol) = 116.18 g
19 moles H (1.01 g/mol) + 1 Cl (35.45 g/mol) = 19.19 g
1 mole C (12.01 g/mol) = 12.01 g
4 moles H (1.01 g/mol) = 4.04 g
216.38 g + 19.19 g + 35.45 g + 56.04 g = 326.96 g/mol C16H23ClN4

Literature Value for Molar Mass:
326.83 g/mol

How the body takes in Clozaril:
Clozaril is taken orally. It is readily absorbed from the GI tract.

After the drug is absorbed:
Clozaril interferes with the binding of dopamine type 2 (D2) and the serotonin type 2A (5-HT2A) receptors. It inhibits the binding of the D2 and 5-HT2A. Clozaril also acts as an antagonist at adrenergic, cholinergic, histaminergic and other dopaminergic and serotoninergic receptors.

Labeled Uses:
The labeled use of Clozapine is to manage schizophrenia and schizoaffective disorder.

Unlabeled Uses:
The unlabeled uses of Clozapine are treatment of bipolar disorder, dementia-related behavioral disorders, and tremors.

Chemical Name:
8-Chloro-11-(4-methyl-1-piperazinyl)-5H-dibenzo[b,e][1,4]diazepin-5-yl

Chemical Formula:
C16H23ClN4

How the body breaks it down:
The liver is responsible for being the location of the Clozaril breakdown.

How the body eliminates it:
Clozaril is eliminated in urine and feces. Urine eliminates 50% of the Clozaril, and feces eliminates 30% of Clozaril.