

Schizophrenia can be a debilitating chronic and severe mental disorder that can affect how a person thinks, feels, and behaves. These symptoms typically appear in late adolescence or early adulthood. This disorder can have devastating effects on families all while having a major impact on the patient's psychological, educational, emotional, functional perception, and social abilities throughout the client's lifespan (Crawford & Go, 2022).

**a. Select one drug to treat the diagnosis(es) or symptoms.**

There are 2 different types of antipsychotics, first-generation (typical) and second-generation (atypical) antipsychotics. According to the American Psychiatric Association, second-generation antipsychotics, excluding clozapine, are considered the first line medication for treating Schizophrenia (Fabrazzo et al., 2022). Based on the age range of the patient and the presenting symptoms, olanzapine (Zyprexa) is the drug choice to treat this patient. The goal here is to decrease and possibly eliminate symptoms, prevent relapse, and best help the patient become a productive member of her society.

**b. List medication class and mechanism of action for the chosen medication.**

Olanzapine is a mood stabilizer and second-generation antipsychotic. The mechanism of action for olanzapine is primarily on dopamine and serotonin receptors. It works on dopamine D2 receptors in the mesolimbic pathway as an antagonist, blocking dopamine from potential action at the post-synaptic receptor (Stahl, 2014). The binding of olanzapine to the dopamine D2 receptors dissociates easily, allowing for normal dopamine neurotransmission.

The effect on the D2 receptors leads to a decrease in positive symptoms in patients, including hallucinations, delusions, and disorganized speech, thought, and behavior (Stahl, 2014). Olanzapine works similarly on serotonin 5HT2A receptors in the frontal cortex as an antagonist. The effect of olanzapine on serotonin decreases negative symptoms, including anhedonia, flat affect, alogia, avolition, and poor attention (Stahl, 2014).

**c. Write the prescription in prescription format.**

Today's Date:

07/26/2023 Patient

name: MM

Date of Birth: Case study

Rx: Olanzapine 5mg tablet

Sig: Take 1 tablet PO

daily Disp: 30 (thirty)

tablets Refill: 1

Diagnosis: F20.9 Schizophrenia, unspecified

Prescriber Name: Lisa Patel