Commentary

# Antibiotic Activity and Side Effects of Quetiapine

Long Zhao Zhao\*

Department of Pharmaceutical Science, Shenyang Pharmaceutical University, Liaoning, China

## INTRODUCTION

This medicine is used to treat certain mental/emotional disorders (such as schizophrenia, bipolar disorder, sudden episodes of mania, or depression associated with bipolar disorder). Quetiapine is an antipsychotic medication (atypical type). It functions by assisting in the restoration of the equilibrium of certain natural compounds (neurotransmitters) in the brain. This drug can help to focus and reduce hallucinations. It enables to think more clearly and positively, to feel less frightened, and to participate more actively in daily life. It may also boost the mood, sleep, appetite, and vitality. Quetiapine can help prevent severe mood swings or reduce the frequency with which they occur. There are two types of quetiapine oral tablets: Immediate-release oral tablets and extended-release oral tablets. The immediate-release variant is immediately absorbed into the bloodstream. The extended-release version enters bloodstream gradually over time. Quetiapine pills in both formulations are used to treat schizophrenia and bipolar disorder. In conjunction with antidepressants, the extendedrelease pill is also used to treat severe depression. The adverse effects of this medicine differ slightly depending on the drug type.

The most typical immediate-release tablet adverse effects are dry mouth, dizziness, stomach pain, constipation, nausea, vomiting, weight gain, increased hunger, sore throat, difficulty moving, rapid heartbeat, and weakness. The following are some of the more common side effects of extended-release tablets: Dry mouth, constipation, dizziness, increased hunger, upset stomach, fatigue, stuffy nose, and difficulty moving. Atypical Antipsychotic (AAP) medicine is an important technique for treating psychiatric disease symptoms.

While AAPs predominantly target dopamine (D2) and serotonin (5HT2A and 5HT1A) receptors, they also have off-target antibacterial activity. Because AAPs are frequently prescribed to patients for many years, an unanticipated concern of long-term AAP use is the formation of bacteria with Antimicrobial Resistance (AMR). Although the precise mechanism of action of quetiapine is uncertain, several ideas exist.

Its actions in schizophrenia could be attributed to the antagonism of dopamine type 2 and serotonin type 2A (5HT2A) receptors. The drug's or its metabolite's binding to the norepinephrine transporter may be associated with Quetiapine's actions in cases of bipolar depression and major depression. Taking quetiapine with certain medications increases the risk of experiencing side effects from those medications. These are examples of these drugs: Alprazolam, clonazepam, diazepam, chlordiazepoxide, or lorazepam are examples of benzodiazepines. Patients may be experiencing drowsiness. Morphine, oxycodone, fentanyl, hydrocodone, tramadol, or codeine is examples of pain relievers. Hydroxyzine, diphenhydramine, chlorpheniramine, and brompheniramine are examples of antihistamines. Sedative/ hypnotic medications like zolpidem or eszopiclone. Phenobarbital and other barbiturates are also used in combination with Quetiapine. Blood pressure may be reduced even further. This drug includes a number of warnings.

#### NMS warning

NMS (Neuroleptic Malignant Syndrome) is a rare but serious disease that can arise in persons who use antipsychotic medications like quetiapine. NMS is fatal and must be treated in a hospital. High fever, intense sweating, tight muscles, confusion, or changes in respiration, heartbeat, or blood pressure are all possible symptoms.

### Metabolic changes warning

Quetiapine can alter the way the body functions. People could develop hyperglycemia (high blood sugar), elevated cholesterol and triglycerides (blood fats), or weight gain. High blood sugar levels can occur in both diabetics and non-diabetics.

#### Tardive dyskinesia warning

Quetiapine has been linked to tardive dyskinesia. This is a serious disorder that produces uncontrollable movements of the face, tongue, or other body parts. Even if people stop taking quetiapine, tardive dyskinesia may persist. It may also begin after people stop taking this medication.

Correspondence to: Long Zhao Zhao, Department of Pharmaceutical Science, Shenyang Pharmaceutical University, Liaoning, China, E-mail: 89673068325@gmail.com

Received: 25-Oct-2022, Manuscript No. PACO-22-21239; Editor assigned: 28-Oct-2022, PreQC No. PACO-22-21239 (PQ); Reviewed: 11-Nov-2022, QC No. PACO-22-21239; Revised: 18-Nov-2022, Manuscript No. PACO-22-21239 (R); Published: 25-Nov-2022, DOI: 10.35248/2471-2698.22.7.167

Citation: Zhao ZL (2022) Antibiotic Activity and Side Effects of Quetiapine. Pharm Anal Chem. 7:167.

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## Anticholinergic effects

Taking quetiapine with other anticholinergic medicines may raise the chance of significant anticholinergic symptoms. Severe constipation or stomach pain, inability to empty the bladder (urinary retention), impaired vision, drowsiness, delirium, confusion, and falls are all possible symptoms. For people over 65 and who have a history of these side effects, the risks may be enhanced.

## **CONCLUSION**

Quetiapine has the potential to trigger a serious allergic reaction. Symptoms may include difficulty breathing, and swelling of the throat or tongue. For people experiencing any of these symptoms, contact 911 or proceed to the nearest emergency room. It is better to not take this medication if there are side effects. Quetiapine can cause sleepiness. The consumption of alcoholic beverages increases your chances of experiencing this side effect. People consume alcohol, so it is better to consult the doctor to determine whether it is safe.