



Direct Healthcare Professional Communication

Aug 2024

Quetiapine – Risk of serotonin syndrome, a potentially fatal condition in case of Concomitant administration with other serotonergic medications, such as MAO inhibitors, selective serotonin reuptake inhibitors, serotonin norepinephrine reuptake inhibitors, or tricyclic antidepressants.

Dear Healthcare Professional,

The General Administration for Pharmaceutical Vigilance of the Central Administration for Pharmaceutical Care at The Egyptian Drug Authority would like to inform you **about Risk of serotonin syndrome, a potentially fatal condition.**

Summary:

- Quetiapine should be used with caution in combination with serotonergic medications, such as MAO inhibitors, selective serotonin reuptake inhibitors (SSRIs), serotonin norepinephrine reuptake **inhibitors** (SNRIs), or tricyclic antidepressants, as **which increases the risk of serotonin syndrome, a life-threatening condition**
- If concomitant treatment with other serotonergics is clinically justified, careful observation of the patient is advised, especially during treatment initiation and dose increases
- Symptoms of serotonin syndrome may include mental status changes, autonomic instability, neuromuscular abnormalities, and/or gastrointestinal symptoms.
- If serotonin syndrome is suspected, a dose reduction or discontinuation of treatment should be considered based on the severity of symptoms.

Background on the safety concern

Quetiapine is an atypical antipsychotic agent. Quetiapine and the active human plasma metabolite, norquetiapine, interact with a wide range of neurotransmitter receptors. Quetiapine and norquetiapine show affinity for brain serotonin (5HT₂) and dopamine D₁ and D₂ receptors. This combination of receptor antagonism with a greater relative selectivity for 5HT₂ than for D₂ receptors is thought to contribute to the clinical antipsychotic properties and the low incidence of extrapyramidal adverse reactions (EPS) of quetiapine compared with typical antipsychotics. Quetiapine and norquetiapine have no appreciable affinity for benzodiazepine receptors but have



high affinity for and alpha 1 adrenergic receptors and moderate affinity for alpha 2 adrenergic receptors

Quetiapine is indicated for:

- Schizophrenia treatment
- Bipolar disorder treatment:
 - For the treatment of moderate to severe manic episodes in bipolar disorder
 - For the treatment of major depressive episodes in bipolar disorder
 - For the prevention of recurrence of manic or depressive episodes in patients with bipolar disorder who have previously responded to treatment with quetiapine.
- The additional treatment of major depressive episodes in patients with Major Depressive Disorder (MDD) who have not had an optimal response to treatment with antidepressant monotherapy.

The serotonin syndrome is a life-threatening adverse drug reaction resulting from excess serotonergic agonism due to interactions between multiple drugs, poisoning, or less commonly due to therapeutic action of a single drug. The central triad of features in serotonin syndrome are altered mental state, autonomic hyperactivity, and neuromuscular abnormalities in the context of a patient with new/changed serotonergic therapy, although not all these features are consistently present in all patients. The severity of serotonin syndrome can be assessed clinically based on the number and severity of features. Severe serotonin syndrome warrants more careful management on a high-dependency unit. In case of temperature exceeding 38.5°C, urgent cooling measures and sedation should be employed, progressing to rapid sequence intubation and paralysis if cooling measures are ineffective.

Reference:

AEMPS (Spain): https://cima.aemps.es/cima/dochtml/ft/85768/FT_85768.html

Pubmed: <https://pubmed.ncbi.nlm.nih.gov/35551099/>

Call for reporting

Healthcare professionals are asked to report any suspected adverse reactions via the Egyptian reporting system:

Name: General Administration for Pharmaceutical Vigilance

Email: pv.followup@edaegypt.gov.eg

Online reporting: <https://primaryreporting.who-umc.org/EG>

QR Code:



Hotline: 15301
