



EMS System for Metropolitan Oklahoma City and Tulsa 2024 Medical Control Board Mobile Integrated Health Protocols



For review on 5/07/25, Effective 7/01/25, New Protocol

MIH 10C – Olanzapine (Zyprexa)

MOBILE INTEGRATED HEALTH PARAMEDIC

Class: Second generation antipsychotic

Actions/Pharmacodynamics: blocks dopamine D2 receptors, resulting in mild sedation and improvement of psychotic symptoms. The effect of olanzapine in the D2 receptor is reported to produce the positive effects of this drug such as a decrease in hallucinations, delusions, disorganized speech, disorganized thought, and disorganized behavior. On the other hand, its effect on the serotonin 5HT2A receptor prevents the onset of anhedonia, flat affect, alogia, avolition and poor attention. Based on the specific mechanism of action, olanzapine presents a higher affinity for the dopamine D2 receptor when compared to the rest of the dopamine receptor isotypes. This characteristic significantly reduces the presence of side effects.

Indications: Mildly agitated patients are eligible for oral olanzapine administration. These are patients who are:

- restless and anxious but verbally redirected

Or

- agitated with frequent non-purposeful movements and resists EMS care and requires gently physical redirection to allow for care.

And

- unresponsive to other de-escalation strategies
- compliant with oral medication and administration
- consent to receive olanzapine

Contraindications:

Absolute:

- Allergy or history of adverse drug reaction
- Lewy Body dementia
- History of dystonia
- Age less than 16
- Evidence of Sepsis

Relative:

- Current use of CNS depressants
- Evidence of hypoperfusion



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MIH – 10C Olanzapine, cont.

Pharmacokinetics: Olanzapine is well absorbed and reaches peak concentrations in approximately 6 hours following an oral dose. It is eliminated extensively by first pass metabolism, with approximately 40% of the dose metabolized before reaching the systemic circulation. Food does not affect the rate or extent of olanzapine absorption. Pharmacokinetic studies showed that olanzapine tablets and Zyprexa Zydis (olanzapine orally disintegrating tablets) dosage forms are bioequivalent. Olanzapine presents a half-life ranging between 21 to 54 hours with an average half-life of 30 hours.

Side Effects: Potential side effects include orthostatic hypotension and interference with cognitive and motor performance. Specifically, olanzapine has the potential to impair judgment, thinking and motor skills.

Dosage:

- Age 16 to 65: **10mg**
 - **Total maximum dose 20mg in 24 hours**
 - The second dose may be administered at 20 minutes if symptoms persist.
- Age greater than 65, cachectic or frail: **5mg**
 - **Total maximum dose 10mg in 24 hours**
 - The second dose may be administered at 20 minutes if symptoms persist.

How Supplied: Zyprexa Zydis (olanzapine orally disintegrating tablets) 10 mg.