NASSA

Nor Adrenergic Specific Serotonin Antidepressant

Enters

Pakistan

Unique Revolution in Antidepressants

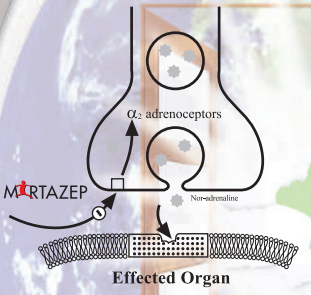
15mg & 30mg Tablets

MIRTAZEP

Mirtazapine

Nor **A**drenergic **S**pecific **S**erotonin **A**ntidepressant

A Unique Dual Mechanism of Action



MIRTAZEP appears to increase amine release from nerve endings by antagonism of presynaptic α_2 adrenoceptors involved in feedback inhibition. This mode of action is in particular responsible of its anti-depressant effect.

MIRTAZEP selectively stimulate 5HT1 (5Hydro-xytryptamine, Serotonin) receptors & block $5HT_2$ and $5HT_3$ receptors. The anti depressant & anxiolytic effects are mediated by $5HT_1$, receptors.

Ideal for depression with anxiety and sleep disturbance.

Mirtazep appears to be useful in patients suffering from depression combined with anxiety symptoms and sleep disturbance.

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Mirtazapine

Nor**A**drenergic **S**pecific **S**erotonin **A**ntidepressant

Quick Positive Response

A continuation study showed that Mirtazapine was more effective than the SSRI's at week 3 and 4 of therapy and it was also more effective than paroxetine and citalopram at week 1 and 2, respectively, in short term assessments (6 to 8 weeks)[2]

Ideal for combination therapy

The low potential for interaction with drugs that are metabolised by CYP2D6, including antipsychotics, tricyclic antidepressants and some SSRI's, may also make Mirtazapine an important option for the treatment of major depression in patients who require polytherapy[2]

Ideal for depression with anxiety and sleep disturbance

Mirtazep appears to be useful in patients suffering from depression combined with anxiety symptoms and sleep disturbance[1]

15mg & 30mg Tablets

MIRTAZEP

Mirtazapine

- Mirtazep is effective, safe and well-tolerated
- Once a day dosage
- Effective as an augmentation or combination therapy in patients with refractory depression
- Low incidence of anti-cholinergic and other side effects including tremor and dyspepsia
- Specifically enhances 5HT1 mediated neurotransmission, resulting in standard efficacy and excellent tolerability
- Free of side effects associated with non-specific SSRIs such as nausea, vomiting, sexual dysfunction
- Sleep improvement and anxiolytic effects by blockade of 5HT2 (serotonin) receptors
- Positive response within 4 days of starting the treatment

PRESCRIBING INFORMATION:

Description: Mirtazep (Mirtazapine) is an oral antidepressant. Each tablet contain 15 or 30 mg of Mirtazapine. **Pharmacokinetics:** Mirtazep (Mirtazapine) is rapidly and completely absorbed following oral administration and has an absolute bioavailability of about 50%. Peak plasma concentrations are reached after about 2 hours following an oral dose. Mirtazapine is approximately 85% bound to plasma proteins. Mirtazapine is extensively metabolised, major pathway of biotransformation are demethylation and oxidation, followed by conjugation. It is eliminated predominantly through urine 75% with 15% in feces. The mean elimination half life of mirtazapine after oral administration ranges from approximately 20 to 40 hours across ages and gender subgroups, with females of all ages exhibiting significantly longer elimination half lives than males (mean half life of 37 hours for females VS 26 hours for males.) **Mode of Action:** Mirtazep (Mirtazapine) enhances central noradrenergic and serotonergic activity Mirtazapine acts as an antagonist at central presynaptic α_2 adrenergic inhibitory receptors, an action that is postulated to result in an increase in central noradrenergic and serotonergic activity. Mirtazep (Mirtazapine) is a potent antagonist of 5-HT2 and 5HT3 receptors. Mirtazep (Mirtazapine) has no significant affinity for the 5-HT1A and 5HT1B receptors. Mirtazep (Mirtazapine) is a potent antagonist of histamine (H1) receptors, a property that may explain its sedative effects. Mirtazep (Mirtazapine) is a moderate peripheral α_1 adrenergic antagonist, a property that may explain the occasional orthostatic hypotension reported in association with its use. Mirtazep (Mirtazapine) is a moderate antagonist at muscarinic receptors, a property that may explain the relatively low incidence of anticholinergic side effects associated with its use. **Indications:** Episodes of major depression. **Dosage and Administration:** The Tablets should be taken orally, preferably in the evening prior to sleep. ***Adult:*** The effective daily dose is usually between 15 and 45 mg; the starting dose is 15 or 30 mg (the higher dose should be taken at night). Elderly: The recommended dose is the same as that for adults. In elderly patients, an increase in dosing should be done under close supervision to elicit a satisfactory and safe response. Children: Since safety and efficacy of Mirtazep (Mirtazapine) has not been established in children, it is not recommended to treat children with Mirtazep (Mirtazapine). Treatment should preferably be continued until the patient has been completely symptom free for 4-6 month. After this, treatment can be gradually discontinued. Treatment with an adequate dose should result in a positive response within 2-4 weeks. With an insufficient response, the dose can be increased up to the maximum dosage. **Adverse Effects:** The most commonly reported undesirable effects during treatment with Mirtazep (Mirtazapine) are: Increase in appetite and weight gain. Somnolence (which can lead to impaired concentration), generally occurring during the first few weeks of treatment, dizziness, headache and generalized or local edema. **Contraindications:** Mirtazep (Mirtazapine) tablets are contraindicated in patients with a known hypersensitivity to Mirtazapine. **Warnings and Precautions:** Bone marrow depression, usually presenting as granulocytopenia or agranulocytosis, has been reported during treatment with most antidepressants therefore if a patient develops a sore throat, fever, stomatitis or other signs of infection along with a low WBC count, treatment with Mirtazep (Mirtazapine) should be discontinued and the patient should be closely monitored. It is recommended that Mirtazep (Mirtazapine) not be used in combination with Monoamine oxidase inhibitors (MAOI), or within 14 days of initiating or discontinuing therapy with an MAOI. Safety and effectiveness in children have not been established. Mirtazep (Mirtazapine) should be prescribed cautiously with following medical conditions: ***Somnolence, Dizziness, Seizures.*** **Pregnancy and lactation:** There are no adequate and well controlled studies in pregnant women, therfore this drug should be used during pregnancy only if clearly needed. It is not known whether Mirtazapine is excreted in human milk, caution should be exercised when Mirtazep (Mirtazapine) tablets are administered to nursing women. **Overdosage:** There is a very limited experience with mirtazpine overdose. Signs and symptoms reported in association with overdose included disorientation, drowsiness, impaired memory, and tachycardia. Treatment should consist of those general measures employed in the management of overdose with any antidepressant as there is no specific antidote for Mirtazep (Mirtazapine). **Drug Interactions:** When carbamazepine or another inducer of drug metabolism (such as rifampicin or phenytoin) is added to mirtazapine therapy, the Mirtazapine dose may have to be increased. Bioavailabilityof Mirtazapine is increased by more than 50% when co-administered with cimetidine. The Mirtazapine dose may have to be decreased when concomitant treatment with cimetidine is started or increased when cimetidine treatment is ended. Mirtazep (Mirtazapine) should not be administered concomitantly with MAOI or within two weeks of cessation of therapy with these agents. Mirtazapine may potentiate the sedative effect of benzodiazepines, caution should be taken when these drugs are prescribed together with Mirtazep (Mirtazapine). Caution is needed when azole antifungals, erythromycin and nefazodone are co-administered with Mirtazep (Mirtazapine).

References:

1. Anttila SA, Leinonen Ev. Department of Psychiatry, Tampere University Hospital, FIN-33380 Pit Kaniemi, Finland, CNS Drug Rev 2001 Autumn; 7(3):249-64. A review of the pharmacological and clinical profile of mirtazapine.
2. Holm KJ, Markham A, Adis International Limited, Mairangi Bay, Auckland, New Zealand. Drugs 1999 Apr; 57(4): 607-31. Mirtazapine: a review of its use in major depression.

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