

Toolbox for Treatment of Primary Insomnia

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Classification	Brand Name	Generic Name	Dose Range (mg/day)	Half-life (hours)	Time to Effect	Adverse Effects	Comments	FDA Approval for Insomnia
Benzodiazepines	Alprazolam	Xanax	0.75 – 10	12 – 15	<30 minutes (min)	Tolerance Withdrawal Seizure Anterograde amnesia	Longer half life in elderly patients Dose adjustments for hepatic disease	No
	Clonazepam	Klonopin	0.5 – 4	30 – 40	<30 min	Same	Longer half life in elderly patients Dose adjustments for hepatic disease	No
	Diazepam	Valium	2 – 40	20 – 80	<30 min	Same	Longer half life in elderly patients Dose adjustments for hepatic disease	No
	Lorazepam	Ativan	10 - 20	10 - 20	<30 min	Same	Longer half life in elderly patients No dose adjustments for mild to moderate renal or hepatic impairment	Yes
	Triazolam	Halcion	0.125 - 0.5	1.5 – 5.5	<30 min	Same	Longer half life in elderly patients Dose adjustments for hepatic disease	Yes
	Temazepam	Restoril	7.5-30	3.5-18.4	<30 min	Same	Longer half life in elderly patients No dose adjustments for mild to moderate renal or hepatic impairment	Yes
	Non-benzodiazepine receptor	Zolpidem	Ambien Ambien CR Intermezzo	5-10 mg 6.25-12.5 1.75-3.5	2.5	< 30 min	Dizziness Forgetfulness Falls	Dose adjustments for hepatic disease Approved for both short

agonists		Edluar	5-10 mg			especially in elderly Night eating syndrome	and long term use Additional formulations for sublingual (Intermezzo) or oral spray (Edluar) usage Complex sleep behaviors	
	Eszopiclone	Lunesta	1-3 mg Elderly or debilitated 1 mg	5-6	< 30 min	Daytime sedation, dizziness, dry mouth, hallucinations, sleep walking	Short term and chronic insomnia Complex sleep behaviors	Yes
	Zaleplon	Sonata	5-10 mg Maximum 20mg Elderly or debilitated 5mg	1	< 30 min	Same as Zolpidem	Short term use only Avoid administration with high fat meal May use a second dose in the middle of the night if awoken Complex sleep behaviors	Yes
Melatonin Agonists	Ramelteon	Rozerem	8 mg	1.75	< 30 min	Somnolence and dizziness, possible effects on reproductive endocrinology (prolactin, testosterone)	Long term use Difficulty with sleep onset Avoid administration with high fat meal Do not break tablet	Yes
	Melatonin	N/A	1.5 - 3 mg	35-50 min	Take 20-40 minutes prior to bedtime	Headache Drowsiness Upset stomach	Recommended for short term use – Up to two months Jet lag	No

Antihistamines	Diphenhydramine	Benadryl	Most common dosage 50-100mg	2-8	20-40 minutes	Dry mouth, constipation, blurry vision, confusion, falls	Available over-the-counter	Yes
	Hydroxyzine	Vistaril/ Atarax	Most common dose 50-100mg	20-25 min	Take 30-60 min before bedtime May last too long or not enough	Decreased mental alertness, headache, dry mouth		No
	Doxylamine	Ingredient in Nyquil	25-50mg	2	Take 30 min prior to bedtime May last too long or not enough	Dry mouth, ataxia, urinary retention, memory deficits	Available over-the-counter	Yes
Tricyclic Antidepressants	Amitriptyline	Elavil	Lower doses more effective, 10-50 mg but may dose at 50-100 mg QHS	12-24	May be delayed, some taking 2-3 hours for effect	Cardiac toxicity, anticholinergic effects	May be deadly in overdose Possibility of developing withdrawal symptoms if discontinued quickly	No
	Doxepin	Sinequan Silenor	10-50mg 3-6 mg	17	Approximately 30 min	Appetite loss; constipation; diarrhea; dizziness; drowsiness;	May be deadly in overdose Possibility of developing withdrawal symptoms if discontinued quickly	No

						dry mouth; excess sweating; headache; heartburn		
Other	Trazodone	Desyrel	Lower dose more effective 50-100 mg QHS	3-6	Onset 20 mins, Variable duration	Anticholinergic effects, priapism, dizziness		No
	Mirtazepine	Remeron	15-45 mg QHS	20-40	Onset variable	Weight gain, dry mouth, daytime drowsiness	Primary use is for depression Triglycerides may become elevated	No
	Quetiapine	Seroquel Seroquel XR	25-100 mg QHS	6	30-60 mins	Weight gain, dry mouth, dizziness	May be at risk of tardive dyskinesia with long term use	No