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Drug treatment for panic disorder

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Abstract. Selective serotonin reuptake inhibitors (SSRIs) are the first-line treatment for panic disorder. Tricyclic antidepressants (TCAs) are equally effective, but they are less well tolerated than the SSRIs. In treatment-resistant cases, benzodiazepines like alprazolam may be used when the patient does not have a history of dependency and tolerance. Due to possible serious side effects and interactions with other drugs and food components, the irreversible monamine oxidase inhibitor (MAOI) phenelzine should be used only when first-line drugs have failed.

Keywords: Panic disorder; Drug treatment; Selective serotonin reuptake inhibitors; Benzodiazepines; Tricyclic antidepressants

In Table 1, the evidence for the efficacy of drugs for the treatment of panic disorder is summarized. This overview is based on the work of the Task Force for the Treatment of Anxiety, Obsessive-Compulsive and Posttraumatic Stress Disorders of the World Federation of Societies of Biological Psychiatry (WFSBP) [1]. To be recommended, a drug must have shown its efficacy in double-blind placebo-controlled (DBPC) studies. When an established standard treatment exists for a specific disorder, a drug must have been compared with this reference drug (comparator trial).

1. Standard first line treatments

1.1. Selective serotonin reuptake inhibitors (SSRI)

The efficacy of the SSRIs in panic disorder has been proven in many controlled studies, and they are considered to be the first-line drugs for this disorder. Efficacy has been shown

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Table 1
Recommendations for the drug treatment of panic disorder

Diagnosis	Treatment	Examples	Category of evidence	Recommended daily dose for adults
Panic disorder and agoraphobia	*In acute panic attacks:*			
	Benzodiazepines, e.g.	Alprazolam	A	0.5–2 mg
		Lorazepam melting tablets	B1	1–2.5 mg
	Maintenance treatment:			
	SSRIs, e.g.	Citalopram	A	20–60 mg
		Escitalopram	A	10–20 mg
		Fluoxetine	A	20–40 mg
		Fluvoxamine	A	100–300 mg
		Paroxetine	A	20–40 mg
		Sertraline	A	50–150 mg
	TCA, e.g.	Clomipramine	A	75–250 mg
		Imipramine	A	75–250 mg
	When other treatment strategies are not effective or not tolerated:			
	Benzodiazepines, e.g.	Alprazolam	A	1.5–8 mg
		Clonazepam	A	1–4 mg
		Diazepam	A	5–20 mg
		Lorazepam	B1	2–8 mg
	MAOI	Phenelzine	B1	45–90 mg
	SNRI	Venlafaxine	B1	75–225 mg
	SNRI	Reboxetine	B1	4–8 mg
	NASSA	Mirtazapine	B2	45 mg
	RIMA	Moclobemide	C	300–600 mg

These recommendations are based on randomized, double-blind clinical studies published in peer-reviewed journals. Not all of the recommended drugs are licensed for these indications in every country.
Categories of evidence (see ref. [1]) are only based on efficacy without regard to other properties (e.g., side effects). Abbreviations: see text.

for the following SSRIs: for *citalopram* in placebo- and comparator-controlled trial and one comparison with fluoxetine, for *escitalopram* in a citalopram- and placebo-controlled trial, for *fluvoxamine* in a number of DBPC studies and one placebo- and comparator-controlled trial, for *fluoxetine* in DBPC and comparator-controlled trials, for *paroxetine* in DBPC and comparator-controlled studies, and *sertraline* in DBPC studies and one comparator trial.

Restlessness, jitteriness, an increase in anxiety symptoms and insomnia in the first days or weeks of treatment may hamper compliance with treatment. Lowering the starting dose of SSRIs may reduce this overstimulation. Other side effects include fatigue, dizziness, nausea, anorexia or weight gain. Sexual dysfunctions (decreased libido, impotence or ejaculatory disturbances) may be a problem in long-term treatment, and discontinuation syndromes have been observed. In general, the side effect profile of these drugs is benign. The anxiolytic effect may start with a latency of 2–4 weeks (in some cases up to 6 or 8 weeks). To avoid overstimulation and insomnia, doses should be given in the morning and midday, except in patients reporting daytime sedation.