

SUMMARY OF PRODUCT CHARACTERISTICS

1 NAME OF THE MEDICINAL PRODUCT

Nardil 15 mg film-coated tablets

Phenelzine 15 mg film-coated tablets

2

QUALITATIVE AND QUANTITATIVE COMPOSITION

Phenelzine sulfate BP equivalent to phenelzine base 15 mg. For the full list of excipients, see section 6.1.

3 PHARMACEUTICAL FORM

Film-coated tablet.

Orange, round film-coated biconvex tablet, plain on both sides.

4 CLINICAL PARTICULARS

4.1 Therapeutic indications

Phenelzine is a monoamine oxidase inhibitor (MAOI). It has been found to be effective in depressed patients clinically characterised as 'atypical', 'non endogenous', 'neurotic' or where treatment with other antidepressants has failed. These patients often have mixed anxiety and depression and phobic or hypochondriacal features. There is less conclusive evidence of its usefulness with severely depressed patients with endogenous features.

1.1 Posology and method of administration

Posology

Adults

One 15 mg tablet three times a day. A response is usually seen within the first week. If no response is evident after two weeks, the dosage may be increased to a maximum of one 15mg tablet four times a day. Doses of up to two 15mg tablets three times a day may be used in hospitals. The effectiveness of the drug may not become apparent in less than 4 weeks therapy. After a satisfactory response has been achieved, the dosage may be reduced very gradually to a suitable maintenance level. This may be as low as one 15mg tablet every other day.

Elderly (over 65 years)

As for adults.

Postural hypotension may be an unwanted effect of MAOIs in the elderly. Elderly patients as a group tend to receive multiple drug therapies and the possibility of increased risk of drug interactions should be borne in mind. This medicine should only be used with great caution in elderly patients.

Despite these problems, MAOIs (including phenelzine) have been found to be useful in the treatment of depression in the elderly.

Paediatric population

This medicine is not indicated for children under 16 years of age.

Method of administration

Oral administration.

1.2 Contraindications

Hypersensitivity to the active substance or to any of the excipients listed in section 6.1.

Phenelzine should not be used in patients with phaeochromocytoma, cerebrovascular disease, congestive heart failure, a history of liver disease or with abnormal liver function tests. Phenelzine sulphate should not be administered at the same time as, or within 14 days of, treatment with other MAOIs, buspirone, or dibenzazepine derivative drugs (including tricyclic antidepressant agents, perphenazine or carbamazepine). In the cases of clomipramine and imipramine, 3 weeks should be left before starting phenelzine therapy. It is recognised that there is some division of consultant opinion with respect to concomitant use of MAOIs and tricyclic antidepressants.

There have been reports of serious reactions (including hyperthermia, rigidity, myoclonic movements and death) when serotonin reuptake inhibitors or serotonin/noradrenaline inhibitors (e.g. venlafaxine) have been combined with MAOIs. Therefore, phenelzine should not be used in combination with these drugs and before initiating phenelzine, a sufficient amount of time must be allowed for clearance of these drugs and their metabolites. For example, five weeks in the case of fluoxetine and two weeks with paroxetine. Conversely, these drugs should not be started within 14 days of discontinuing phenelzine. Phenelzine should not be used in combination with guanethidine, dextromethorphan, or with CNS depressants such as alcohol and narcotic analgesics. Death has been reported in patients receiving a single dose of pethidine.

Phenelzine is not indicated in the manic phase.

1.3 Special warnings and precautions for use

Suicide/suicidal thoughts or clinical worsening

Depression is associated with an increased risk of suicidal thoughts, self harm and suicide (suicide-related events). This risk persists until significant remission occurs. As improvement may not occur during the first few weeks or more of treatment, patients should be closely monitored until such improvement occurs. It is general clinical experience that the risk of suicide may increase in the early stages of recovery.

Patients with a history of suicide-related events, or those exhibiting a significant degree of suicidal ideation prior to commencement of treatment are known to be at greater risk of suicidal thoughts or suicide attempts, and should receive careful monitoring during treatment. A meta-analysis of placebo-controlled clinical trials of antidepressant drugs in adult patients with psychiatric disorders showed an increased risk of suicidal behaviour with antidepressants compared to placebo in patients less than 25 years old. Close supervision of patients and in particular those at high risk should accompany drug therapy especially in early treatment and following dose changes. Patients (and caregivers of patients) should be alerted about the need to monitor for any clinical worsening, suicidal behaviour or thoughts and unusual changes in behaviour and to seek medical advice immediately if these symptoms present.

Phenelzine should be withdrawn two weeks before elective surgery/dentistry.

Phenelzine should not be given with cocaine or local anaesthesia containing sympathomimetic vasoconstrictors. The possible combined hypotensive effects of phenelzine and spinal anaesthesia should be kept in mind.

This medicine should be used only with great caution in agitated patients or those who have cardiovascular disease, epilepsy, blood dyscrasias, porphyria or diabetes; and in patients taking diuretics.

Blood pressure should be observed frequently to detect any pressor response and therapy discontinued if palpitations or frequent headaches occur.

Patients should also be closely followed for symptoms of postural hypotension. Hypotensive side effects have occurred in hypertensive as well as normotensive and hypotensive patients.

Due to the possibility of patients undergoing "Withdrawal Syndrome" (see section 4.8 Undesirable Effects) abrupt withdrawal of phenelzine should be avoided where possible.

Phenelzine may cause excessive stimulation in schizophrenic patients; in manic-depressive states it may result in a swing from a depressive to a manic phase.

Caution should be exercised if the patient undergoes concurrent electroconvulsive therapy (ECT).

4.5 Interactions with other medicinal products and other forms of interaction

Patients should be warned against self medication, particularly cold cures, cough cures, hay fever medications, anti-appetite medicines, weight-reducing preparations and "pep" pills and about potential food interactions.

Patients under treatment with this medicine should avoid high protein food that has undergone breakdown by ageing, fermentation, pickling, smoking or bacterial contamination. Patients should avoid cooked or plain cheese, Oxo, Bovril, Marmite, brewer's yeast, etc. during treatment and up to 14 days after ceasing treatment. Flavoured textured vegetable protein, hung game, pickled herrings, dry sausage (salami, pepperoni etc.), liver, yoghurt, broad bean pods, fermented soya bean extract, and excessive amounts of chocolate may also present a hazard. Patients should not consume alcoholic drink or non-alcoholic beers, lagers and wines and excessive amounts of tea and coffee should be avoided.

Where a reaction between phenelzine and certain foodstuffs occurs the intensity of the reaction is usually related to the tyramine content of the food. The reaction is now well recognised and serious hypertensive episodes are extremely rare. Should such a reaction occur, the hypertension should be controlled promptly by slow administration of phentolamine 5mg to 10mg IV repeated if necessary. Care should be taken to administer this drug slowly to avoid an excessive hypotensive effect.

Phenelzine may also potentiate the effects of alcohol.

Phenelzine may potentiate the action of pethidine, morphine, adrenaline, amphetamines and other sympathomimetic amines such as fenfluramine, ephedrine, phenylpropanolamine, dopamine and levodopa (see also Contraindications). Phenelzine may also potentiate the effects of antihypertensives, hypoglycaemic agents, sympathomimetics, anti-Parkinson drugs, antimuscarinics, local anaesthetics and CNS depressants, including barbiturates.

It is suggested that MAOIs are not administered at the same time as, or within 14 days of, treatment with amfebutamone (bupropion) or 5HT₁ agonists.

It is suggested that MAOIs are not administered at the same time as anti-epileptics, altretamine, doxapram, tetrabenazine, oxypertine or clozapine.

The combination of MAOIs and tryptophan has been reported to cause behavioural and neurological symptoms.

4.6 Fertility, pregnancy and lactation

Pregnancy

Do not use during pregnancy, especially during the first and last trimesters, unless there are compelling reasons. There is no evidence as to drug safety in human pregnancy nor is there evidence from animal work that it is free from hazard.

Breastfeeding

It is not known if phenelzine is excreted in breast milk. Because of the potential for serious adverse effects to the infant, a decision should be made whether to discontinue the drug or not to breast-feed.

4.7 Effects on ability to drive and use machines

Produces adverse effects on driving ability

4.8 Undesirable effects

Side-effects tend to be mild or moderate in severity, often subsiding as treatment continues, and can be minimised by adjusting dosage; rarely is it necessary to discontinue phenelzine.

The most important reaction associated with this medicine is the occurrence of hypertensive crises, which have been associated with intracranial bleeding and have sometimes been fatal.

Cases of suicidal ideation and suicidal behaviours have been reported during phenelzine therapy or early after treatment discontinuation (see section 4.4).

The undesirable effects reported with phenelzine during clinical trials and post-marketing surveillance are shown in the table below. They are listed by System-Organ Class (SOC) and in order of frequency, using the following convention: very common ($\geq 1/10$); common ($\geq 1/100$ to $< 1/10$); uncommon ($\geq 1/1,000$ to $< 1/100$); rare ($\geq 1/10,000$ to $< 1/1,000$); very rare ($< 1/10,000$); not known (cannot be estimated from the available data).

Table 1 Frequency of adverse events

SOC	Frequency	Event
Blood and lymphatic system disorders	Uncommon	Purpura, blood disorder
Immune system disorders	Uncommon	Lupus-like syndrome
Endocrine disorders	Uncommon	Hypernatraemia
Metabolism and nutrition disorders	Very rare	Hypermetabolism
Psychiatric disorders	Common	Insomnia, anorgasmia
	Uncommon	Nervousness, euphoria, abnormal behaviour, feeling jittery, confusion, hallucinations
	Very rarely	Ataxia, shock-like coma, toxic delirium, neuroleptic malignant syndrome (occasionally fatal), manic reaction, acute anxiety reaction, precipitation of

SOC	Frequency	Event
		schizophrenia
	Unknown	Suicidal ideation, suicidal behaviour
Nervous system disorders	Common	Dizziness, drowsiness
	Uncommon	Headache, paraesthesia, convulsion, neuropathy peripheral, repetitive speech
Eye disorders	Common	Blurred vision
	Uncommon	Glaucoma, nystagmus
Cardiac disorders	Uncommon	Arrhythmias
	Very rare	Cardiovascular depression ¹
Vascular disorders	Common	Postural hypotension
	Unknown	Hypertension
Respiratory, thoracic and mediastinal disorders	Very rare	Respiratory depression ¹
Gastrointestinal disorders	Common	Nausea, vomiting, dryness of the mouth, constipation
	Uncommon	Increased appetite, increased weight
Hepatobiliary disorders	Common	Elevated serum transaminases
	Uncommon	Elevated liver enzymes
	Very rare	Fatal progressive necrotising hepatocellular damage, reversible jaundice
Skin and subcutaneous disorders	Common	Oedema
	Uncommon	Rash, pruritis, sweating
	Very rare	Laryngeal oedema
Musculoskeletal and connective tissue disorders	Common	Myoclonic movements, hyperreflexia

SOC	Frequency	Event
	Uncommon	Muscle tremor
	Very rare	Increased muscle tone
Renal and urinary disorders	Uncommon	Difficulty in micturition
Reproductive system and breast disorders	Uncommon	Impotence, ejaculation delayed
General disorders and administration site conditions	Common	Weakness, fatigue
	Very rare	Pyrexia

¹ Transient, following ECT.

DESCRIPTION OF SELECTED ADVERSE REACTIONS

Withdrawal may be associated with nausea, vomiting and malaise. An uncommon withdrawal syndrome following abrupt withdrawal of phenelzine has been infrequently reported. Signs and symptoms of this syndrome generally commence 24 to 72 hours after drug discontinuation and may vary from vivid nightmares and agitation to frank psychosis and convulsions. This syndrome generally responds to reinstitution of low-dose phenelzine therapy followed by cautious downward titration and discontinuation.

Hyponatraemia (usually in the elderly and possibly due to inappropriate secretion of antidiuretic hormone) has been associated with all types of antidepressants and should be considered in all patients who develop drowsiness, confusion or convulsions while taking an antidepressant.

Reporting of suspected adverse reactions

Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions via the Yellow Card Scheme at: www.mhra.gov.uk/yellowcard or search for MHRA Yellow Card in the Google Play or Apple App Store.

4.9 Overdose

Symptoms

Signs and symptoms may be absent or minimal during the initial 12-hour period following ingestion and may develop slowly thereafter, reaching a maximum in 24 to 48 hours. Death has been reported following overdosage, therefore immediate hospitalisation with continuous patient observation and monitoring throughout this period is essential.

Large doses may produce hypomania, euphoria, followed by coma with hypotension, or acute hypertension sometimes with subarachnoid haemorrhage. In a few cases extra-pyramidal symptoms have been recorded.

Other symptoms may be: drowsiness, dizziness, faintness, irritability, hyperactivity, agitation, severe headache, hallucinations, trismus, opisthotonos, rigidity, convulsions, rapid and irregular pulse, precordial pain, respiratory depression and failure, hyperpyrexia, diaphoresis and cool, clammy skin.

Treatment

Gastric lavage with instillation of charcoal slurry may be helpful in early poisoning (tablets dissolve slowly in stomach).

Absolute bed rest, raise feet in hypotension. Vasopressors are best avoided. Hypertension should be urgently controlled with phentolamine IV. Avoid hypnotics, such as morphine, pethidine, barbiturates. Body temperature should be monitored, and fever managed by cooling.

Use intravenous therapy to maintain fluid and electrolyte balance and use a slow IV injection of diazepam for any CNS stimulation. In deep coma and severe hypotension hydrocortisone by injection may be tried.

There is no specific antidote for phenelzine. Haemodialysis, peritoneal dialysis and charcoal haemoperfusion may be of value in massive overdose, but sufficient data are not available to recommend their routine use in these cases.

5 PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Antidepressants, monoamine oxidase inhibitors, non-selective, ATC code: N06AF03

The MAOIs comprise a chemically heterogeneous group of drugs that have in common the ability to block oxidative deamination of naturally occurring monoamines.

MAOIs exert their effects mainly in organ systems influenced by sympathomimetic amines and 5-HT.

The MAOIs in clinical use are site-directed irreversible inhibitors. The hydrazines attack and inactivate the flavin prosthetic group following their oxidation to reactive intermediates by MAO.

The capacity of MAOIs to act as antidepressants has most often been assumed to reflect the increased availability of one or more monoamines in the CNS or sympathetic nervous system.

5.2 Pharmacokinetic properties

All the currently employed MAO inhibitors are readily absorbed when given by mouth. These drugs produce maximal inhibition of MAO in biopsy samples from man within 5 to 10 days. There is little information on their pharmacokinetics. However, their biological activity is prolonged due to the characteristics of their interactions with the enzyme.

The hydrazide MAO inhibitors are thought to be cleaved with resultant liberation of active products. They are inactivated primarily by acetylation.

5.3 Preclinical safety data

There are no pre-clinical safety data of relevance to the prescriber which are additional to those already included in other sections of the Summary of Product Characteristics.

6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients

The tablet cores contain mannitol, povidone, magnesium stearate and maize starch.

The tablet coating contains polyvinyl alcohol (E1203), talc (E553b), sunset yellow (E110), glyceryl monocaprylocaprate, glyceryl dicaprylocaprate, sodium lauryl sulfate, titanium dioxide (E171), carmine (E120).

6.2 Incompatibilities

None known.

6.3 Shelf life

24 months.

6.4 Special precautions for storage

Store between 2°C to 8°C in a refrigerator, unless unavoidable for short periods.

6.5 Nature and contents of container

White, high density polyethylene (HDPE) bottle fitted with a child-resistant white, polypropylene (PP) cap with an induction heat sealed liner, containing 100 tablets.

6.6 Special precautions for disposal

No special requirements.

Any unused medicinal product or waste material should be disposed of in accordance with local requirements.

7 MARKETING AUTHORISATION HOLDER

Neon Healthcare Ltd.

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SG13 7NN

United Kingdom

8 MARKETING AUTHORISATION NUMBER(S)

PL 45043/0057.

**9 DATE OF FIRST AUTHORISATION/RENEWAL
OF THE AUTHORISATION**

01/07/1999

10 DATE OF REVISION OF THE TEXT

02/07/2025