swissmedic

Date: 26 June 2026
Swissmedic, Swiss Agency for Therapeutic Products

Swiss Public Assessment Report

Tranylcypromine Rivopharm

International non-proprietary name:	tranylcypromine
Pharmaceutical form:	film-coated tablets
Dosage strength(s):	40 mg
	20 mg
	10 mg
Route(s) of administration:	oral
Marketing authorisation holder:	Rivopharm SA
Marketing authorisation no.:	69794
Decision and decision date:	approved on 12.05.2026

Note:

This assessment report is as adopted by Swissmedic with all information of a commercially confidential nature deleted.

SwissPARs are final documents that provide information on submissions at a particular point in time. They are not updated after publication.

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1 Terms, Definitions, Abbreviations

ADA	Anti-drug antibody
ADME	Absorption, distribution, metabolism, elimination
AE	Adverse event
ALT	Alanine aminotransferase
API	Active pharmaceutical ingredient
AST	Aspartate aminotransferase
ATC	Anatomical Therapeutic Chemical Classification System
AUC	Area under the plasma concentration-time curve
$AUC_{0\text{-}24h}$	Area under the plasma concentration-time curve for the 24-hour dosing interval
CI	Confidence interval
C_{max}	Maximum observed plasma/serum concentration of drug
CYP	Cytochrome P450
DDI	Drug-drug interaction
EMA	European Medicines Agency
ERA	Environmental risk assessment
FDA	Food and Drug Administration (USA)
GI	Gastrointestinal
GLP	Good Laboratory Practice
HPLC	High-performance liquid chromatography
IC/EC_{50}	Half-maximal inhibitory/effective concentration
ICH	International Council for Harmonisation
Ig	Immunoglobulin
INN	International non-proprietary name
ITT	Intention-to-treat
LoQ	List of Questions
MAH	Marketing authorisation holder
Max	Maximum
Min	Minimum
MRHD	Maximum recommended human dose
N/A	Not applicable
NO(A)EL	No observed (adverse) effect level
PBPK	Physiology-based pharmacokinetics
PD	Pharmacodynamics
PIP	Paediatric investigation plan (EMA)
PK	Pharmacokinetics
PopPK	Population pharmacokinetics
PSP	Pediatric study plan (US FDA)
RMP	Risk management plan
SAE	Serious adverse event
SwissPAR	Swiss Public Assessment Report
TEAE	Treatment-emergent adverse event
TPA	Federal Act of 15 December 2000 on Medicinal Products and Medical Devices (SR 812.21)
TPO	Ordinance of 21 September 2018 on Therapeutic Products (SR 812.212.21)

2 Background information on the procedure

2.1 Applicant's request(s) and information regarding procedure

New active substance status
The applicant requested new active substance status for tranylcypromine (tranylcypromine sulfate) in the above-mentioned medicinal product.

Authorisation in accordance with Article 14 paragraph 1 letter a^{bis} TPA
The applicant requested a simplified authorisation procedure in accordance with Article 14 paragraph 1 letter a ^{bis} TPA.

2.2 Indication and dosage

2.2.1 Requested indication

For the treatment of depressive episodes (episodes of major depression) in adults.
Tranylcypromine Rivopharm should be used as a reserve antidepressant, i.e.

- if adequate treatment with 2 standard antidepressants (including tricyclic antidepressants) has not been sufficiently successful, or
- if such standard agents are contraindicated or are not tolerated by the patient.

2.2.2 Approved indication

For the treatment of depressive episodes (episodes of major depression) in adults.
Tranylcypromine Rivopharm should be used as a reserve antidepressant, i.e.

- when appropriate treatment with 2 standard antidepressant agents (including tricyclic antidepressants) have not led to satisfactory results, or
- when such standard agents are contraindicated or are not tolerated by the patient.

2.2.3 Requested dosage

Summary of the requested standard dosage:

The therapy is initially administered in the morning, at a starting daily dose of 10 mg. The usual effective dose ranges from 20 mg to 40 mg per day. Based on the patient response, the administration dose can be increased in increments of 10 mg over a period of 1 to 3 weeks up to a maximum daily dose of 60 mg.
The total daily dose can be divided into 1, 2, or 3 doses. A maintenance dose of 10 mg to 20 mg per day of tranylcypromine is usually sufficient. The mean treatment duration until symptoms recede is generally 4 to 6 weeks. Treatment can be then continued at a lower dose for 4 to 6 months.

2.2.4 Approved dosage

(see appendix)

2.3 Regulatory history (milestones)

Application	28 February 2024
Formal objection	12 March 2024
Response to formal objection	22 April 2024
Formal control completed	21 May 2024
List of Questions (LoQ)	8 November 2024
Response to LoQ	6 March 2025
Second List of Questions (LoQ)	4 June 2025
Response to second LoQ	30 September 2025
Preliminary decision	19 December 2025
Response to preliminary decision	12 February 2026
Final decision	12 May 2026
Decision	approval

Based on Art. 14 para. 1 letter a^{bis} TPA, the authorisation of Tranylcypromine Rivopharm film-coated tablets is based primarily on the medicinal product Jatrosom film-coated tablets, which contains the same active substance and has been authorised in Germany for more than 10 years. Apart from the quality-related aspects, for which Swissmedic has conducted an independent scientific review (based on primary data), this SwissPAR refers to the authorisation of the foreign medicinal product Jatrosom film-coated tablets.

3 Quality aspects

3.1 Drug substance

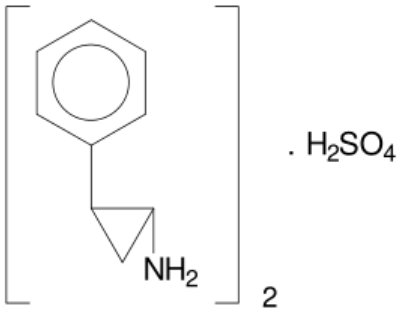
INN: Tranylcypromine sulfate

Chemical name: (1RS,2SR)-2-Phenylcyclopropylamine Sulphate (2:1) (+) Trans-2-phenylcyclopropylamine Sulphate (2:1)

Molecular formula: [C9H11N]2 . H2SO4

Molecular mass: 133.19 g/mol Molecular mass of tranylcypromine base
364.46 g/mol Molecular mass of tranylcypromine sulfate

Molecular structure:



and enantiomer

Tranylcypromine sulfate is a white or almost white crystalline powder, which is soluble in water. It is present as an enantiomer in trans configuration: 1R,2S-enantiomer and 1S,2R-enantiomer in a 1:1 ratio (Racemat). Tranylcypromine sulfate is present in its crystalline form and polymorphism is not known for the API.

The drug substance is manufactured through a multi-step chemical synthesis process. Information regarding the manufacturing process, critical steps, and intermediates has been provided. The drug substance is milled.

The drug substance specification includes tests for description, identity, loss on drying, assay, and related substances, as well as a test for residual solvents. The applied limits are justified and in line with the relevant guidelines and the European Pharmacopoeia, where applicable. The proposed acceptance criteria and analytical methods are considered appropriate for the quality control of the drug substance.

Appropriate stability data have been generated, resulting in an appropriate retest period. No special storage conditions are required.

3.2 Drug product

Tranylcypromine drug product is provided as immediate release film-coated tablets in 3 different dosage strengths. Each film-coated tablet contains 13.862 mg, 27.364 mg, or 54.728 mg of tranylcypromine sulfate, which corresponds to 10 mg, 20 mg, or 40 mg tranylcypromine free base. The green to yellowish film-coated tablets are round, biconvex, and have a thickness and a diameter of 7 mm (10 mg), 9 mm (20 mg), and 12 mm (40 mg), respectively. The 10 mg and 20 mg film-coated tablets have a score mark, while the 40 mg tablet has a cross-score mark. The 20 mg tablets are intended for dose-halving, whereas the 40 mg tablets are intended for dividing into equal halves or quarters.
In addition to the drug substance tranylcypromine sulfate, the following excipients are present in the core of the tablets: cellulose, microcrystalline; maize starch; lactose monohydrate; silica, colloidal anhydrous.

The pharmaceutical development has been adequately described. The development is based on a reference product.

The manufacturing process can be divided into the following stages: blending, direct compression (tableting), and film-coating. All dosage strengths are produced from a common blend. Adequate process parameters and in-process controls are defined in order to ensure a consistent quality of the film-coated tablets.

The test methods applied to the drug product are adequately validated in accordance with the recommendations of the latest scientific guidelines. The specifications for the drug product include tests for appearance, identification, assay, impurities, dissolution, disintegration, average mass, uniformity of dosage units, resistance to crushing, water content, and microbial purity. Dose-halving subdivision has been tested for the 20 mg and 40 mg strengths. The proposed acceptance criteria and analytical methods are considered appropriate for quality control of the drug product.

The primary container closure system used for commercial distribution of tranylcypromine is an aluminium/aluminium blister constituting an Al lidding foil and forming foil (OPA/Al/PVC).

Appropriate stability data have been generated in the packaging material intended for commercial use and in accordance with the relevant international guidelines.

3.3 Quality conclusions

Satisfactory and consistent quality of the drug substance and drug product has been demonstrated.

4 Nonclinical aspects

In accordance with Art. 14 para. 1 letter a^{bis} TPA, Swissmedic has only reviewed the nonclinical overview or risk assessment for the authorisation of Tranylcypromine Rivopharm film-coated tablets. The approval of Tranylcypromine Rivopharm film-coated tablets is based on the medicinal product Jatrosom film-coated tablets, which contains the same active substance and has been authorised in Germany for more than 10 years.

5 Clinical aspects

In accordance with Art. 14 para. 1 letter a^{bis} TPA, Swissmedic has conducted only a summary review of efficacy and safety. The authorisation of Tranylcypromine Rivopharm film-coated tablets is based primarily on the medicinal product Jatrosom film-coated tablets, which contains the same active substance and has been authorised in Germany for more than 10 years.

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6 Risk management plan summary

The RMP summaries contain information on the medicinal products′ safety profiles and explain the measures that are taken to further investigate and monitor the risks, as well as to prevent or minimise them.
The RMP summaries are published separately on the Swissmedic website. It is the responsibility of the marketing authorisation holder to ensure that the content of the published RMP summaries is accurate and correct. As the RMPs are international documents, their summaries might differ from the content in the Information for healthcare professionals / product information approved and published in Switzerland, e.g. by mentioning risks that occur in populations or indications not included in the Swiss authorisations.

7 Appendix

Approved Information for healthcare professionals

Please be aware that the following version of the Information for healthcare professionals for Tranylcypromine Rivopharm film-coated tablets was approved with the submission described in the SwissPAR. This Information for healthcare professionals may have been updated since the SwissPAR was published.

Please note that the valid and relevant reference document for the effective and safe use of medicinal products in Switzerland is the Information for healthcare professionals currently authorised by Swissmedic (see www.swissmedicinfo.ch).

Note:
The following Information for healthcare professionals has been translated by the MAH. It is the responsibility of the authorisation holder to ensure the translation is correct. The only binding and legally valid text is the Information for healthcare professionals approved in one of the official Swiss languages.

NAME OF THE MEDICINAL PRODUCT

Tranylcypromine Rivopharm 10 mg film-coated tablets / Tranylcypromine Rivopharm 20 mg film-coated tablets / Tranylcypromine Rivopharm 40 mg film-coated tablets

The efficacy and safety of Tranylcypromine Rivopharm 10 mg, 20 mg and 40 mg, film-coated tablets have only been summarily reviewed by Swissmedic. The authorisation of Tranylcypromine Rivopharm 10 mg, 20 mg and 40 mg, film-coated tablets is based on Jatrosom 10 mg, 20 mg and 40 mg film-coated tablets, date of revision of the text December 2025, which contains the same active substance and is authorised in Germany.

Composition

Active ingredients

Tranylcyprominum (ut tranylcypromini sulfas)

Excipients

Tablet core: lactose monohydrate 13,250 mg (10 mg film-coated tablets) / 26,500 mg (20 mg film-coated tablets) / 53,000 mg (40 mg film-coated tablets), microcrystalline cellulose, maize starch, colloidal anhydrous silica

Film Coating: polyvinyl alchool E1203, macrogol 3350 E1521, titanium dioxide E171, talc E553b, yellow iron oxide E172, Indigo carmine E132, black iron oxide E172

Dosage form and amount of active ingredient per unit

Film-coated tablet

Tranylcypromine Rivopharm 10 mg film-coated tablets
1 film-coated tablet contains 10 mg tranylcypromine from 13.68 mg tranylcypromine sulfate.
Green to yellowish, round biconvex film-coated tablets scored on one side.
The score line is only to facilitate breaking for ease of swallowing and not to divide into equal doses.

Tranylcypromine Rivopharm 20 mg film-coated tablets
1 film-coated tablet contains 20 mg tranylcypromine from 27.36 mg tranylcypromine sulfate.
Green to yellowish, round biconvex film-coated tablets scored on one side.
The film-coated tablet can be divided into equal doses (halves).

Tranylcypromine Rivopharm 40 mg film-coated tablets
1 film-coated tablet contains 40 mg tranylcypromine from 54.73 mg tranylcypromine sulfate
Green to yellowish, round biconvex film-coated tablets cross-scored on one side.
The film-coated tablet can be divided into equal doses (halves or quarters).

Indications/Possible applications

For the treatment of depressive episodes (episodes of major depression) in adults. Tranylcypromine Rivopharm should be used as a reserve antidepressant, i.e.
- when appropriate treatment with 2 standard antidepressant agents (including tricyclic antidepressants) have not led to satisfactory results, or
- when such standard agents are contraindicated or are not tolerated by the patient.

Dosage/Application

Treatment should be initiated with 10 mg tranylcypromine once daily in the morning. Usually, an

improvement in mood/reduction in depressive state can be expected after 1 to 3 weeks. Depending on the effect and tolerability, the initial dose can be increased by 10 mg of tranylcypromine a day each week up to a therapeutic dose corresponding to the individual's treatment response.

The usual effective dose is 20 to 40 mg/day. The individual dosage is adjusted according to the patient's response and to desease severity.

Therapy resistance: If the treatment response is not adequate, the dose can be further increased in increments of 10 mg/day every 1 to 3 weeks up to a maximum daily dose of 60 mg/day in an in-patient setting.

The total daily dose may be divided into 1 to 3 single doses taken at different times. The last of the day is to be taken no later than 3 p.m. so as to avoid sleep disruption.

Maintenance therapy
In many cases, a maintenance dose of 10 to 20 mg/day of tranylcypromine is adequate.

Duration of therapy
The average duration of a treatment period until symptoms resolve is generally at least 4 to 6 weeks. Once the depressive symptoms have subsided, the Tranylcypromine Rivopharm treatment may be continued at a reduced dose for 4 to 6 months if necessary.

The sudden discontinuation of a long-term treatment with Tranylcypromine Rivopharm should be avoided, as this can trigger withdrawal symptoms such as anxiety, unease, sleep disorders, drowsiness or delirium. If discontinuation is necessary, the treatment should be continued by reducing the dose slowly.

Switching from another antidepressant to Tranylcypromine Rivopharm
When switching from another antidepressant to Tranylcypromine Rivopharm, the treatment should generally be interrupted for at least 7 days, and the treatment with Tranylcypromine Rivopharm should then be started with only 10 mg/day, at least for the first week.

Patients with hepatic impairment
Tranylcypromine Rivopharm is contraindicated for patients with hepatic impairment (see section "Contraindications").

Patients with renal impairment
There is insufficient experience of the use of Tranylcypromine Rivopharm in the treatment of patients with renal impairment. As such, patients with severe renal disorders should not be treated with Tranylcypromine Rivopharm (see section "Contraindications"). Other patients with limited renal function should be monitored carefully (see "Warnings and precautions").

Elderly patients
In the case of elderly patients, the dose increase should be increased slowly, with regular monitoring of blood pressure (see "Warnings and precautions").

Children and adolescents
Tranylcypromine Rivopharm is contraindicated for children and adolescents (see section "Contraindications").

Method of administration
To be taken orally.
Take whole with plenty of liquid (preferably with a glass of drinking water).

Contraindications

Tranylcypromine Rivopharm must not be used in the following cases:

- Hypersensitivity to the active substance or to any of the excipients listed in the section 'Composition'
- Pheochromocytoma
- Carcinoid
- Cerebrovascular diseases
- Vascular malformations such as aneurysms
- severe hypertension or cardiovascular diseases
- Impaired liver function or liver disorders
- Severe impaired kidney function or kidney disorders
- Porphyria
- Diabetes insipidus
- malignant hyperthermia, including a history of such
- acute Delirium
- Acute poisoning with centrally suppressant medicinal products (such as sleeping pills, analgesics and psychotropic medications such as neuroleptics, antidepressants, lithium) and alcohol
- Pregnancy and breastfeeding (see section "Pregnancy, breastfeeding")
- Children and adolescents

Tranylcypromine Rivopharm must not be given to patients concomitantly with:
- Medicinal products that cause pronounced inhibition of serotonin reuptake, such as all selective serotonin reuptake inhibitors, clomipramine, venlafaxine, duloxetine, milnacipran, sibutramine, vortioxetine
- L-Tryptophan
- serotonin agonists such as triptans for the treatment migraines
- Buspirone
- Imipramine
- Indirect sympathomimetics (contained, for example, in medicinal products which increase blood pressure, as well as in certain nasal, cough or flu medicinations)
- Amphetamines (so-called "waking amines" or appetite suppressants)
- Pethidine, Tramadol, Dextrometorphan (Dextrometorphan contained in Antitussives)
- Disulfiram
- Levodopa, unless combined with decarboxylase inhibitors (such as benserazide or carbidopa) (see also " Interactions").

Warnings and precautions

Food high in tyramine should be avoided from 1 day prior to 14 days after Tranylcypromine Rivopharm treatment (see " Interactions").

Patients with high or low blood pressure and patients at increased risk of hypertensive reactions (e.g., in case of hyperthyroidism) should only take Tranylcypromine Rivopharm if their blood pressure can be checked regularly.

Tranylcypromine is characterized by a significant acute toxicity. This needs to be taken into account when prescribing to patients at risk of suicide.

Tranylcypromine Rivopharm treatment should be discontinued immediately when a manic episode occurs (see section "Adverse effects"). The same applies if acutely productive symptoms appear when treating depressive syndrome secondary to schizophrenic diseases.

Particular caution is required if the patient has a history of drug or alcohol abuse.

Tranylcypromine Rivopharm can lower the seizure threshold, making epileptic patients more susceptable to seizures. Tranylcypromine Rivopharm must therefore be used with caution in patients with known epilepsy.

Suspected cases of interactions between commonly prescribed antidepressants (e.g., citalopram,

paroxetine, venlafaxine, duloxetine, amitriptyline) and buprenorphine indicate that a potentially life-threatening excitatory interaction syndrome (serotonin syndrome) cannot be ruled out when co-administering Tranylcypromine Rivopharm with buprenorphine. If concurrent treatment with buprenorphine is clinically required, the patient must be carefully monitored, particularly at the start of treatment and when increasing the dose. Symptoms of serotonin syndrome may include psychological changes, an unstable autonomic nervous system, neuromuscular changes, and/or gastrointestinal symptoms. In case of suspected serotonin syndrome, dose reduction or discontinuation of treatment should be considered, depending on the severity of symptoms.

Tranylcypromine Rivopharm treatment may affect blood-sugar levels in patients with diabetes mellitus. The dosages of insulin and/or oral antidiabetic medications may have to be adjusted (see "Interactions" section).

Suicide/suicidal ideation or clinical deterioration
Depression is associated with an increased risk of suicidal thoughts, self-harming behavior, and suicide (suicidal-related events). This risk remains until a significant remission occurs. As these may not necessarily appear during the initial weeks of treatment, patients need to 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.

The risk of suicidal thoughts or suicide attempts is higher for patients with a history of suicidal behaviour or patients who had clear intentions of committing suicide prior to the treatment. They therefore need to be monitored particularly carefully during treatment. A meta-analysis of placebo-controlled clinical studies on the use of antidepressants in adults with psychiatric disorders has shown that patients aged under 25 and who were taking antidepressants were at greater risk of suicidal behaviour compared to the placebo group.

Close supervision of patients and in particular those at high risk should accompany 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 deterioration, suicidal behaviour or suicidal thoughts and unusual changes in behaviour. They should immediately seek medical advice if any such symptoms occur.

Patients with renal impairment
There is insufficient experience of the use of Tranylcypromine Rivopharm in the treatment of patients with renal impairment. As such, patients with severe renal disorders should not be treated with Tranylcypromine Rivopharm (see section "Contraindications"). Other patients with limited renal function should be monitored carefully (see "Dosage/Use").

Elderly patients
During the treatment of elderly patients, the daily dose needs to be increased slowly, with regular blood-pressure monitoring. The daily doses administered should be kept as low as possible (see section "Dosage/Administration").

Excipients
Tranylcypromine Rivopharm contains lactose. Patients with rare hereditary galactose intolerance, total lactase deficiency or glucose-galactose malabsorption should not take this medicinal product.

Interactions

Interactions with other medicines
When changing from certain medicinal products to Tranylcypromine Rivopharm and vice versa, an interruption of the treatment is required. When switching from a medication that cannot be combined with Tranylcypromine Rivopharm, a wash-out phase of approx. 5 times the half-life of the active ingredient and its active metabolites is recommended before commencing Tranylcypromine Rivopharm treatment. Conversely, after discontinuation of Tranylcypromine Rivopharm, a 14-day break is recommended before commencing treatment with medications not compatible with

Tranylcypromine Rivopharm.

Influence of other substances on the pharmacokinetics of tranylcypromine
Tranylcypromine Rivopharm must not be taken together with the following active substances (see also section "Contraindications"):

- Medicinal products that can cause pronounced inhibition of serotonin reuptake, such as all selective serotonin reuptake inhibitors, clomipramine, venlafaxine, duloxetine, milnacipran, sibutramine and vortioxetine (risk of triggering serotonin syndrome [see section "Warnings and precautions"] which can have severe and life-threatening symptoms)
- L-tryptophan (symptoms of delirium may occur)
- Serotonin agonists such as triptans for treatment of migraine (risk of serotonin syndrome, see first dot point)
- Buspirone (there have been reports of severe rises in blood pressure)
- imipramine (severe adverse reactions such as irritability, coma, hyperthermia, seizures, and severe blood-pressure fluctuations in, especially blood-pressure rises, can occur)
- indirect sympathomimetics (contained in medications such as those used to increase blood pressure, and in certain nasal, cough and flu medications) (risk of severe hypertensive crises)
- Amphetamines (so-called "waking amines" or appetite suppressants) (risk of severe hypertensive crises)
- Pethidine, tramadol, dextrometorphan (dextrometorphan contained in cough medicinal products) (possible life-threatening adverse reactions in the CNS or life-threatening interference with respiratory and circulatory function)
- Disulfiram (possible delirium)
- Levodopa unless combined with decarboxylase inhibitors (such as benserazide or carbidopa) (risk of uncontrolled rise in blood pressure)

Combination of Tranylcypromine Rivopharm with direct sympathomimetics (e.g. in circulatory medications to increase blood pressure or for bronchodilation or in nasal drops) should be avoided. The customarily low concentrations of adrenaline or noradrenaline in local anesthetics or eye drops do not pose any particular risk to patients treated with tranylcypromine, as they can be broken down via the alternative route of catechol-O-methyltransferase. Combination with selective β2-sympathomimetics for application via inhalation similarly poses no particular risk.

In patients with therapy-resistant depression receiving tricyclic antidepressants (excluding however clomipramine and parenteral antidepressants!) Tranylcypromine Rivopharm can be given additionally on an individual basis while taking the necessary precautions and increasing the dose slowly. Most clinical experience relates to the combination of tranylcypromine /amitriptyline.

Influence of tranylcypromine on the pharmacokinetics of other substances
Tranylcypromine Rivopharm may potentiate the hypotensive effect of antihypertensive agents (e.g. guanethidine, methyldopa); in individual cases, an increase in blood pressure can be triggered (and create a state of agitation).

The effects of insulin and oral diabetes medication may be potentiated (see also section "Warnings and precautions").

The adverse reaction of bupropion (or amfebutamone – a smoking cessation drug) such as seizures and states of agitation may be potentiated if Tranylcypromine Rivopharm is being taken simultaneously. This combination should therefore be avoided.

The effect of centrally suppressant medicinal products (neuroleptics, antidepressants, analgesics, benzodiazepines) may be potentiated during concomitant administration of Tranylcypromine Rivopharm.

Suspected cases of interaction between commonly prescribed antidepressants (e.g. citalopram, paroxetine, venlafaxine, duloxetine, amitriptyline) and buprenorphine indicate that a potentially life-threatening excitatory serotonin syndrome is also a possibility when co-medicating with

Tranylcypromine Rivopharm and buprenorphine (see "Warnings and precautions").

Tranylcypromine is a specific and potent inhibitor of cytochrome P450 2A6 (CYP2A6). Since CYP2A6 has little or no significance for the metabolism of most drugs, the risk of pharmacokinetic interactions is low overall. Tegafur is a prodrug that is predominantly metabolized by CYP2A6 to the active form 5-fluorouracil. Concomitant use of Tranylcypromine Rivopharm with medicines containing Tegafur should be avoided as the effectiveness of Tegafur may be reduced.

Interactions during surgery and dental treatment
Consideration needs to be given to discontinuation of tranylcypromine for 14 days before elective surgery involving the use of anaesthetics or certain analgesics, as there have been reports of interactions between irreversible MAO inhibitors (such as tranylcypromine) and anaesthetics, which have been severe in some cases (unstable circulation, comatose states). Pethidine, a strong analgesic used in cases such as post-operative pain treatment, must not be administered to patients being treated with Tranylcypromine Rivopharm (see also section "Contraindications").
There is always a possibility that patients being treated with Tranylcypromine Rivopharm may suffer hyperexcitation of the sympathetic nervous system.
Inhalation anaesthetics, with the exception of ether, which should not be used, do not pose any additional risk compared to their existing inherent risks. The usually low concentrations of adrenaline or noradrenaline in local anesthetics (e.g., during dental procedures) or eye drops do not pose any particular risk to patients being treated with Tranylcypromine Rivopharm.

These interactions apply even if the aforementioned medications are only taken temporarily .

Food interactions (see also "Warnings *and precautions")*
Biogenic amines are physiological substances in microorganisms, plants, animals and humans that play a role in nerve function and as hormones. They can also accumulate in food through microbial metabolic processes: in normal fermentation processes during manufacturing, but also as a result of excessively warm storage or perishing.
Excessive intake of biogenic amines (approx. 800 to 2000 mg per meal, without MAO inhibitors) in food can lead to symptoms of toxicity, particularly in the form of changes to blood pressure and even hypertensive crisis.
Patients being treated with MAO inhibitors may experience unpleasant effects with as little as 6 mg of tyramine and 1 mg of phenylethylamine per meal. Severe reactions are only expected when tyramine levels are at least 25 mg per meal.
Possible intolerance is not only determined by the tyramine content per gram or millilitre of a certain food, but also by the amount of this food consumed. However, it should be noted that for smaller meals the absorbed proportion of tyramine is relatively high, the same applies when food is combined with alcohol.

Tranylcypromine inhibits an enzyme system (MAO inhibition) required for detoxification of biogenic amines. As such, special dietary rules (low-tyramine diet) need to be followed 1 day before, during and up to 14 days after Tranylcypromine Rivopharm treatment in order to prevent health problems such as nausea, headaches and high blood pressure.

For the treatment of a tyramine-related hypertensive crisis, see the overdose section.
Self-treatment of tyramine-related hypertensive crises with antihypertensive drugs, especially fast-release antihypertensive drugs, is strongly discouraged due to the risk of excessive hypotensive reactions, which may lead to impairment of organ perfusion and serious complications.

Patients should follow a whole food and balanced diet. All foods must be as fresh as possible, and any meals that are uncooked or not totally cooked must be eaten on the same day they are prepared. Opened semi-preserves and thawed frozen products must be consumed immediately. Opened fully preserved foods or fully cooked dishes may only be kept in the refrigerator at 4°C for a maximum of 48 hours before consumption.

Regardless of the dose of the MAO inhibitor, the following foodstuffs are prohibited/only allowed in small quantities 1 day prior, during and up to 14 days after Tranylcypromine Rivopharm treatment:

Please note: Per meal, only one foodstuff allowed in small quantity is recommended.

Prohibited

- Brined hard cheese (e.g. Emmental, mountain cheese, Parmesan and similar semi-hard and grating cheese made from raw milk)
- Blue cheese, e.g. Roquefort, Camembert and similar varieties
- Smear-ripened cheese, e.g. Limburger, Butterkäse, ‘red-smear’ cheese, Harzer, Handkäse
- Chocolate and nougat ice cream
- Beef and chicken liver
- Kidneys of any slaughtered or wild animal
- Stock cubes
- Venison and other heavily aged, strong smelling meat products
- Hard cured salami and similar raw sausages, particularly those covered in edible mould
- Salted herring, Matjes herring, salted sardines, anchovies, caviar and related raw products preserved in salt
- Cold smoked fish (e.g. salted herring, mackerel and similar)
- Dried fish, stock fish, cured cod
- Cod liver
- Calamari (squid)
- Fish sauces, Asian sauces and soy sauces, aged tofu products and similar
- Pickled eggs
- Marmite and other concentrated yeast extracts
- Yeast-based beverages made via fermentation (beer, wine, sparkling wine, including non-alcoholic varieties) and high-percentage alcoholic beverages (liqueurs, brandies, whiskey, rum etc.)
- Barley grains (malt)
- Ripe brown beans (e.g. kidney beans), broad beans (including horse beans and fava beans), white beans
- Bean sprouts
- Dark chocolate in solid blocks or figures (see ‘Allowed in small quantities’)
- Cognac-filled chocolates, liqueur-filled chocolates, cocoa liqueur
- Walnut or unspecified nougat
- Overripe bananas, pears and avocados, red plums, figs (see ‘Allowed in small quantities’)
- Fruit in rum
- Raw sauerkraut
- Raw pickles, barrel-fermented pickles
- Mixed pickles, pickled mushrooms
- Walnuts
- Juices with high pear, banana or plum content
- Conventional grapefruit juices
- Juice drinks made from citrus fruits

Allowed in small quantities

- Semi-hard cheese (stored cold and only briefly, minimal smell) made from pasteurised milk (e.g. Gouda, Chester, Edam), 1 x 20-g slice each
- Mozzarella or feta-like cheese, made from pasteurised milk with cow’s milk content of up to 20 g
- Yoghurt, kefir and preparations thereof, approx. 250 ml
- Vanilla and fruit ice cream, 1 scoop each
- Pork liver, maximum 100 g
- Fresh knacker sausage, maximum 100 g (still soft!)
- Air-dried and aged ham, up to 20 g
- Teewurst, Mettwurst, fine Braunschweiger sausages, up to 50 g
- Fermented herring, Rollmops, up to 100 g
- Herring bites in mayonnaise or jelly, up to 100 g
- Tinned tuna, up to 50 g

- Commercially available ready-made sauces and sauces & similar used in canteen kitchens, up to 100 ml of sauce
- Commercially available sauce powders, up to 100 ml of sauce
- Commercially available ready-made meals with up to 100 ml of sauce
- Chocolates with cream, fruit or marzipan filling, up to 20 g
- Hazelnut nougat, up to 20 g
- Marzipan, up to 20 g
- Milk chocolate up to 20 g and chocolate bars with milk, cream or marzipan filling, up to 50 g (including as white chocolate)
- Chocolate-covered muesli bars, up to 20 g
- Chocolate with whole hazelnuts, cashews or almonds, up to 20 g
- Commercially available orange juices, up to 100 ml
- Blackcurrants up to 50 g, purple grapes up to 250 g, ½ non-overripe bananas, pears or avocado
- Dried fruits, up to 20 g
- Pasteurised wine sauerkraut, up to 100 g
- Pasteurised pickles, up to 100 g
- Carrots (i.e. baby carrots, usually shorter and with leaves), up to 20 g

The effects of alcohol may be potentiated when consumed simultaneously with Tranylcypromine Rivopharm.

Pregnancy, breastfeeding

Pregnancy
There are no or limited amount of data from the use of tranylcypromine in pregnant women. Animal studies are insufficient with respect to reproductive toxicity (see ‘Preclinical data’).
Negative effects of tranylcypromine during pregnancy may occur due to frequent hypertension and reduced placental perfusion.
Therefore, Tranylcypromine Rivopharm should not be taken during the first trimester of pregnancy, and during the second and third trimesters only in the case of compelling indication. If Tranylcypromine Rivopharm is prescribed for a patient of child-bearing potential, the patient should be advised to immediately contact their doctor if they wish to become pregnant or they suspect they are pregnant, so that their medication can be changed in due time.

Lactation
It is unknown whether tranylcypromine is release in human breast milk. In animals low quantities of tranylcypromine are excreted into breast milk. Tranylcypromine Rivopharm should not be taken while breastfeeding. If absolutely necessary, breastfeeding should be discontinued.

Fertility
No data is available regarding effects on fertility. (see 'Preclinical data').

Effect on driving ability and on the operation of machines

Tranylcypromine Rivopharm has minor or moderate influence on the patient’s ability to drive and use machines.
This applies in particular when consuming alcohol and/or in combination with other substances affecting the central nervous system. At the start of treatment, patients should therefore not drive a car or other vehicles, operate electric tools or machinery or perform other potentially dangerous work. The further procedure depends on the patient’s individual response to the treatment.

Undesirable effects

The following categories are used to designate the frequency of adverse reactions:
Very common (≥ 1/10); common (≥ 1/100 to < 1/10); uncommon (≥ 1/1,000 to < 1/100); rare (≥ 1/10,000 to < 1/1,000); very rare (< 1/10,000); not known (frequency cannot be determined based

on the available data).

If a manic episode occurs, Tranylcypromine Rivopharm should be discontinued immediately (see also "Warnings and precautions").

The following side effects are very common, especially at the start of treatment:
insomnia, hypotension, orthostatic reactions (orthostatic dysregulation).

System-Organ Class	Very common	Common	Occasionally	Rare	Very rare	Not known
Blood and lymphatic system disorders				Anaemia, Leukopenia, Neutropenia, Agranulocytosis Thrombopenia		
Psychiatric disorders		States of anxiety Agitation, restlessness		Psychological dependence, Hallucinations[a], confusion[a]		Suicidal thoughts, Suicides behaviour[b]
Nervous system disorders[c]	Insomnia, Sleeping disorders	Dizziness, Dry mouth, Fatigue		Cerebral seizures, Polyneuropathy[a]		
Eye disorders				Accomodative dysfunction[a]		
Cardiac disorders		Heart palpitations				
Vascular disorders	Hypotension, Orthostatic reactions (orthostatic dysregulation)	Hypertension	Hypertensive crises potentiallz associated with tachycardia, Facial redness, Headache, (particularly occipital headaches), Neck stiffness, nausea, Vomiting and Photophobia. In certain cases, especially in the event of non-compliance with dietary Requirements (see Category	Edema		

			"Warnings and precautions") or interactions between medications (see "Interactions "), they can lead to intracranial bleeding.			
Gastrointestinal disorders[d]				Constipation, Diarrhoea		
Hepatobiliary disorders				Liver dysfunction[a], elevated liver enzyme activity[a]		
Skin and subcutaneous tissue disorders				Sweating, allergic skin rashes[a]	Hair loss	
Musculoskeletal, connective tissue and bone disorders				Muscle spasms, muscle pain, joint pain[a]		
Renal and urinary disorders[f]					Reduced urine production consistent with the syndrome of inappropriate ADH secretion	
Reproductive system and breast disorders				Anorgasmia, erectile dysfunction, ejaculatory dysfunction		

General disorders and administration site conditions[g]		Weight gain, weight loss, weakness		Hyperthermia[a]		

[a]Frequency: rare/very rare
[b]Cases of suicidal ideation or behaviour during tranylcypromine treatment or shortly after completing treatment have been reported (see 'Warnings and precautions').
[c]There are reports citing that tranylcypromine has caused tremors, drowsiness and disorientation/dizziness in patients.
[d]There are reports citing that tranylcypromine has caused nausea with and without vomiting as well as unspecific gastrointestinal complaints in patients.
[e]There are reports citing that tranylcypromine has caused muscle twitches in patients.
[f]There are reports citing that tranylcypromine has caused dysuria in patients.
[g]There are reports citing that tranylcypromine has caused chest pain, hypersensitivity to cold or states of exhaustion in patients.

Diseases of the ear and labyrinth
There have been reports of tranylcypromine causing tinnitus in patients.

Reporting suspected adverse reactions after authorization of the medicinal product is important. It allows continuous monitoring of the benefit-risk ratio of the drug. Healthcare professionals are encouraged to report any suspicion of a new or serious adverse reaction via the ElViS (Electronic Vigilance System) online portal. You can find information about this under www.swissmedic.ch.

Overdose

Tranylcypromine displays a significant level of acute toxicity.

Signs and symptoms
Life-threatening symptoms of intoxication by tranylcypromine affect the central nervous system (confusion,hyperxcitation potentially to the point of seizures, clouded consciousness potentially to the point of coma, with feverish states, hyperthermia), respiratory function (to the point of respiratory arrest), the cardiovascular system (severe blood-pressure fluctuations, conduction disorders) and muscles (severe muscle cramps). The symptoms may only appear several hours after ingestion of the overdose.

Treatment
Treatment of intoxication by tranylcypromine requires intensive medical care. In addition to careful monitoring of the pulse, blood pressure, respiration and temperature, the possibility of ventilation must be ensured.

Because of fast absorption, measures to avoid absorption (gastric lavage, administration of activated charcoal) are only suitable for monointoxication identified at an early stase. Multiple drug intoxication should however be taken into account in each case. Haemodialysis and haemoperfusion are indicated within few hours after intake only and moreover, are not a safe remedy. Acidification of urine (e.g. by administering ammonium chloride) may enhance the excretion of tranylcypromine, however the elimination of tranylcypromine does not have any effect on the symptoms as monoamine oxidase is inhibited irreversibly. The effects of the overdose will need to be treated based on symptoms until the monoamine oxidase has been resynthesized.

The pharmacological treatment of individual symptoms depends on the clinical course of the intoxication.

In the event of hypertensive crises (e.g., acute blood-pressure above 180/100 mmHg), usual peroral or parenteral antihypertensive drugs are indicated.
Tyramine-related hypertensive crises are treated like other hypertensive crises in an adapted environment of continuous medical surveillance.

Life-threatening hypotension should preferably be treated with noradrenaline (continuous intravenous infusion). This requires carefully monitoring of blood pressure.

Benzodiazepines are recommended for severe agitation and/or pronounced rigor of skeletal muscles.

In the case of severe muscle cramps, muscle relaxation with non-depolarising muscle relaxants (Pancuronium, Vecuronium) and controlled ventilation may be required.

If possible, as it is only available in oral pharmaceutical form, 5-HT blockade by cyproheptadine can be attempted in serotonin syndrome.

5-HT blockade with chlorpromazine can also be attempted in serotonin syndrome and in states of agitation; however it is necessary to take into consideration the risks of a potential reduction in seizure threshold, inhibition of sweating, fall in blood pressure and dystonia.

In the event of hyperpyrexia, treatment will be required as soon as the temperature reaches 40°C. In this case, the usual intensive-care measures (active cooling, e.g. ice packs on body, acidosis treatment, potentially digital cooling, administration of corticoids) must be taken. Anticholinergics (e.g. biperiden) must be used in the very rare cases of extrapyramidal motor disorders.

The treatment applied for severe serotonin syndrome resulting from interactions with serotonergic medications is the same as that applied for monointoxication.

Careful moritoring of blood-pressure is essential. The patient must be monitored for at least 1 week after the overdose, as delayed or persistent overdose phenomena may occur.

Properties/Effects

ATC code

Pharmacotherapeutic group: antidepressants; non-selective Monoamine oxidase inhibitors, ATC code: N06AF04

Mechanism of action

Tranylcypromine belongs to the group of irreversible and non-selective, non-hydrazine monoamine oxidase (MAO) inhibitors. It has a rapid (within 2 – 8 days), intensely energy-boosting and psychomotor-activating effect, while the mood-lifting and antidepressant effects take longer to manifest (approx. 3-5 weeks).

The mechanism of the antidepressant effect is not totally clear. The non-selective inhibition of MAO-A and -B which occurs within two hours of administration, prevents intracellular and intraneural deactivation of biogenic amines such as serotonin, noradrenaline and dopamine. This means there are more transmitters available in the CNS. Although tranylcypromine and its metabolites are totally eliminated within 24 hours of last intake, the irreversible MAO inhibition means it takes 3 to 5 days for the monoamine oxidase full enzyme activity to be restored.

The density of β-adrenoreptors and serotonergic 5-HT2 receptors decreases over the longer term.

Tranylcypromine is a racemic mixture of (-) and (+) isomers: the (+) isomer has a stronger inhibitory effect on the monoamine oxidase, the (-) isomer can additionally inhibit noradrenaline reuptake.

Pharmacokinetics

Absorption

Tranylcypromine is absorbed rapidly after oral administration. Maximum plasma levels are reached within 0.5 to 3.5 hours after oral administration.
A maximum plasma level of, on average, 112 ng/ml was recorded 2 hours after a one-off dose of 20 mg of tranylcypromine was administered orally to patients taking tranylcypromine on a chronic basis.

Distribution
A distribution volume of 1.1 – 5.7 l/kg of body weight can be assumed. It is known that tranylcypromine is excreted in breast milk. It is not known if tranylcypromine affects the fetal circulation.

Metabolism
The primary products of hepatic biotransformation are p-hydroxy-tranylcypromine and N-acetyl-tranylcypromine. Only about 4% of the dose is found as unchanged tranylcypromine in the urine. Even after administration of high doses, no amphetamine has been found as a metabolite in human urine or plasma.

Elimination
A half-life of approx. 2.5 hours was found in a study with depressive patients after a single dose of 20 mg tranylcypromine. Elimination takes place via the bile and primarily through the kidneys, mostly in the form of metabolites (hippuric acid and benzoic acid). The renal elimination of tranylcypromine is strongly dependent on pH; low pH values favour elimination.

Stereoselectivity
The plasma concentration of the (-)-isomer always exceeds that of the (+)-isomer at a first dose. During repeated use of tranylcypromine, the plasma concentrations of the two isomers are approximately the same. Maximum blood levels are generally reached 0.5 to 3.5 hours after administration.

Preclinical data

Non-clinical data reveal no special hazard for humans based on conventional studies of safety pharmacology, repeated dose toxicity and carcinogenic potential. Acute toxicity of tranylcypromine (in relation to the daily dose of humans) is comparable to that of tricyclic antidepressants. There are no adequate data in animals regarding the effects of tranylcypromine on fertility, embryo/feto toxicity and peri- and postnatal toxicity.

Preclinical effects were only observed after exposures that were sufficiently above the maximum human therapeutic exposure: amphetamine-like effects have been described in electrophysiological and animal studies on central stimulation. However, the pharmacological-stimulating profile of tranylcypromine and amphetamine differs overall. The relevance for humans is rated as low.

Adverse reactions not observed in clinical studies, but seen in animals at exposures similar to clinical levels and with possible relevance for clinical use were as follows: Administration of high single doses and moderate doses of tranylcypromine over a period of 6 months (ca. a quarter lifetime) increased urinary sodium levels in animals.

Other notes

Shelf life

The medicine must only be used up to the date marked "EXP" on the package.

Special storage instructions

Store at room temperature (15-25°C).

Keep out of reach of children.

Approval number

69794…….. (Swissmedic)

Packs

Tranylcypromine Rivopharm 10 mg: 20, 50 and 100 film-coated tablets (B)
Tranylcypromine Rivopharm 20 mg: 20, 50 and 100 film-coated tablets (B)
Tranylcypromine Rivopharm 40 mg: 20, 50 and 100 film-coated tablets (B)

Marketing authorisation holder

Rivopharm SA, Centro Insema, 6928, Manno, Suisse.

Date of revision of the text
Foreign comparator medicinal product: December 2025
Without safety-relevant amendments from Swissmedic: December 2025