

PRAC starts safety review of pseudoephedrine-containing products

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Information on Pseudoephedrine

- Pseudoephedrine is taken by mouth and is used alone or in combination with other medicines to treat nasal congestion (a blocked nose), headache, fever and pain resulting from a cold, flu or allergic rhinitis (inflammation of the nasal passages). It works by stimulating nerve endings to release the chemical noradrenaline, which causes the blood vessels to constrict (narrow). This reduces the amount of fluid released from the vessels, resulting in less swelling and less mucus production in the nose.
- Pseudoephedrine-containing medicines are authorised in various EU Member States alone, or in combination with other medicines. Within the EU, pseudoephedrine-containing medicines are available under various trade names, including Actifed, Aerinaze, Aspirin Complex, Clarinase, Humex rhume, and Nurofen Cold and Flu.

In Malta the following products are authorised through various licensing procedures.

| Active Ingredients | Product Name | Pharmaceutical Form | Classification | Authorisation Number | MAH/license holder |
|---|--------------------|---------------------|----------------|----------------------|--|
| Ibuprofen 200mg, Pseudoephedrine hydrochloride 30mg | Nurofen Cold & Flu | Film-coated tablet | OTC | MA1447/00104 | Reckitt Benckiser Ireland Ltd |
| Ibuprofen 200mg, Pseudoephedrine hydrochloride 30mg | Advil Cold & Flu | Film-coated tablet | OTC | MA460/01001 | GlaxoSmithKline Consumer Healthcare (Ireland) Limited |
| Paracetamol 500mg, Pseudoephedrine hydrochloride 30mg | Panadol Cold & Flu | Film-coated tablet | OTC | MA1177/00701 | GlaxoSmithKline Consumer Healthcare Hellas Single Member Societe Anonyme |
| Paracetamol 500mg, Pseudoephedrine hydrochloride 30mg | Panadol Cold & Flu | Film-coated tablet | OTC | PI908/10501A | NeoFarma Pharmaceuticals Limited |
| Paracetamol 500mg, Pseudoephedrine hydrochloride 15mg, Chlorphenamine maleate 1mg | SNIP | Tablet | OTC | MA032/06402 | Medochemie Limited |
| Diphenhydramine hydrochloride 12.5mg, Paracetamol 500mg, Pseudoephedrine hydrochloride 22.5mg | Benylin Four Flu | Film-coated tablet | OTC | MA1315/00204 | Johnson & Johnson (Ireland) Limited |

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| Paracetamol 500mg, Pseudoephedrine hydrochloride 30mg, Dextromethorphan hydrobromide 15mg, Ascorbic acid 60mg | Parcoten Cold & Flu | Film-coated tablet | OTC | AA115/01703 | Delorbis Pharmaceuticals Limited |
| Paracetamol 500mg, Pseudoephedrine hydrochloride 30mg | Panadol Cold and Flu | Film-coated tablet | OTC | PI521/08202B | Medicem Limited |
| Paracetamol 325mg, Pseudoephedrine hydrochloride 30mg, Dextromethorphan hydrobromide 15mg, | Daleron COLD3 | Film-coated tablet | OTC | MA982/02701 | TAD Pharma GmbH |
| Pseudoephedrine hydrochloride 60mg | Sudafed | Film-coated tablet | OTC | AA908/09901 | NeoFarma Pharmaceuticals Limited |
| Pseudoephedrine hydrochloride 60mg | Sudafed | Film-coated tablet | OTC | AA288/00802 | V.J. SALOMONE PHARMA LIMITED |
| Cetirizine dihydrochloride 5mg, Pseudoephedrine hydrochloride 120mg | Cirrus | Prolonged-release tablet | OTC | MA030/00801 | UCB Pharma SA |
| Dextromethorphan hydrobromide 10mg/5ml, Triprolidine hydrochloride 1.25mg/5ml, Pseudoephedrine hydrochloride 30mg/5ml | Actifed DM Cough Linctus | Oral solution | POM | MA192/02001 | Glaxo SmithKline Ireland Limited |
| Triprolidine hydrochloride 1.25mg/5ml, Guaifenesin 100mg/5ml, Pseudoephedrine hydrochloride 30mg/5ml | Actifed Expectorant | Oral solution | POM | MA192/02003 | Glaxo SmithKline Ireland Limited |
| Loratadine 5mg, Pseudoephedrine sulfate 120mg | Clarinase Repetabs | Prolonged-release tablet | OTC | MA897/00201 | Bayer SA-NV |
| Triprolidine hydrochloride 1.25mg, Pseudoephedrine hydrochloride 30mg | Medofed | Oral solution | POM | MA032/03101 | Medochemie Limited |
| Dextromethorphan hydrobromide 10mg/5ml, Triprolidine hydrochloride 1.25mg/5ml, Pseudoephedrine hydrochloride 30mg/5ml | Actifed DM Cough Linctus | Oral solution | OTC | MA192/02002 | Glaxo SmithKline Ireland Limited |
| Triprolidine hydrochloride 1.25mg/5ml, Guaifenesin 100mg/5ml, Pseudoephedrine hydrochloride 30mg/5ml | Actifed Expectorant | Oral solution | OTC | MA192/02004 | Glaxo SmithKline Ireland Limited |
| Triprolidine hydrochloride 1.25mg, Pseudoephedrine hydrochloride 30mg | Medofed | Oral solution | OTC | MA032/03104 | Medochemie Limited |
| Cetirizine dihydrochloride 5mg, Pseudoephedrine hydrochloride 120mg | Cirrus | Prolonged-release tablet | POM | PI908/17202A | NeoFarma Pharmaceuticals Limited |
| Pseudoephedrine hydrochloride 30mg/5ml, Triprolidine hydrochloride 1.25mg/5ml | ACTIFED | Syrup | POM | PI274/01301A | Alfred Gera & Sons Limited |

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| Pseudoephedrine hydrochloride 30mg/5ml, Triprolidine hydrochloride 1.25mg/5ml | ACTIFED | Syrup | POM | AA521/09201 | Medicem Limited |
| Pseudoephedrine hydrochloride 30mg/5ml, Triprolidine hydrochloride 1.25mg/5ml | ACTIFED | Syrup | OTC | AA908/26001 | NeoFarma Pharmaceuticals Limited |
| Triprolidine hydrochloride 1.25mg/5ml, Guaifenesin 100mg/5ml, Dextromethorphan hydrobromide 15mg/5ml, Pseudoephedrine hydrochloride 20mg/5ml | Medofed Compound | Oral solution | POM | AA032/03105 | Medochemie Limited |
| Loratadine 5mg, Pseudoephedrine sulfate 120mg | Clarityne-D | Prolonged-release tablet | OTC | PI908/00601A | NeoFarma Pharmaceuticals Limited |

Information from the EMA about the safety concern

- The review of medicines containing pseudoephedrine has been initiated at the request of the French medicines agency (ANSM) under [Article 31 of Directive 2001/83/EC](#).
- The EMA Pharmacovigilance Risk Assessment Committee (PRAC), which is responsible for the evaluation of safety issues for human medicines, has started a review of medicines containing pseudoephedrine. This came following concerns about the risk of posterior reversible encephalopathy syndrome (PRES) and reversible cerebral vasoconstriction syndrome (RCVS), conditions affecting blood vessels in the brain. PRES and RCVS can involve reduced blood supply (ischaemia) to the brain and may cause major and life-threatening complications in some cases. Common symptoms associated with PRES and RCVS include headache, nausea and seizures.
- The review follows new data from a small number of cases of PRES and RCVS in people using pseudoephedrine-containing medicines which were reported in pharmacovigilance databases and the medical literature. These medicines have a known risk of cardiovascular and cerebrovascular ischaemic events (side effects involving ischaemia in the heart and brain), including stroke and heart attack. Restrictions and warnings are already included in the medicines' product information to reduce these risks. Considering the seriousness of PRES and RCVS, the overall safety profile of pseudoephedrine and the indications for which the medicines are approved, the PRAC will review available evidence and decide whether the marketing authorisations for pseudoephedrine-containing medicines should be maintained, varied, suspended or withdrawn across the EU.
- PRAC will make a set of recommendations which will then be forwarded to the Committee for Medicinal Products for Human Use (CHMP), responsible for questions concerning medicines for human use, which will adopt an opinion. A European Commission decision on this opinion will be issued in due course and will be the final stage of the review procedure. The adoption by the European Commission of a legally binding decision will be applicable in all EU Member States.

For more information please see the European Medicines Agency's [press release](#).

Reporting Adverse Drug Reactions

Healthcare professionals and patients are encouraged to maintain vigilance on pseudoephedrine-containing medicines. Suspected Adverse Drug Reactions (side effects) may be reported using the Medicines Authority Form and sending it to Sir Temi Żammit Buildings, Malta Life Sciences Park, San Ġwann SĠN 3000 or online to <http://www.medicinesauthority.gov.mt/adrportal> or to the marketing authorisation holder or their local representatives.

Post-Licensing Directorate Malta Medicines Authority

Healthcare professionals and patients are encouraged to regularly check the Malta Medicines Authority website for product safety updates as these are issued on an ongoing basis.

Feedback Form

The Malta Medicines Authority thanks you for the time taken to read this safety circular. The dissemination of safety circulars is an important process whereby Regulatory Authorities can communicate important issues with respect to the safety of medicines, in order to protect and enhance public health

The Malta Medicines Authority kindly invites your anonymous feedback about the regulatory action being communicated. This may be returned by folding this form (address side up), stapling the ends and then posting (no stamp required)

Feedback:

We thank you for your interest and look forward to hearing your opinion.

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