

apy or when patients are unable to discontinue chronic concomitant corticosteroid use within 6 months of starting natalizumab.

Natalizumab has also been investigated for the treatment of ulcerative colitis.

References

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Inflammatory bowel disease. The efficacy and safety of natalizumab in the treatment of *Crohn's disease* have been reviewed, including proposed mechanisms for the role of $\alpha 4$ integrins in the immunopathogenesis of inflammatory bowel disease (p.1697).^{1,2} A systematic review³ of controlled studies of the use of natalizumab in the treatment of Crohn's disease concluded that it is effective for induction of clinical response and remission in some patients with moderately to severely active Crohn's disease, particularly those with active inflammation or chronically active disease despite use of conventional treatment. However, this benefit must be weighed against the risks of developing progressive multifocal leukoencephalopathy.

Natalizumab is also under investigation for *ulcerative colitis*.⁴

- Keeley KA, et al. Natalizumab for the treatment of multiple sclerosis and Crohn's disease. *Ann Pharmacother* 2005; **39**: 1833–43.
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Multiple sclerosis. The efficacy and safety of natalizumab in the treatment of multiple sclerosis (p.892) have been reviewed, including proposed mechanisms for the role of $\alpha 4$ integrins in its immunopathogenesis.^{1–3} Randomised controlled studies^{4–7} showed beneficial results in suppressing inflammatory lesions and reducing the frequency of relapse. Subsequent review⁸ of the data from the AFFIRM trial⁵ and the SENTINEL study⁶ demonstrated reduction of visual loss. In the SENTINEL study,⁶ natalizumab was given with interferon beta, a combination that may have contributed to the development of progressive multifocal leukoencephalopathy in 2 of the study patients, one of whom died (see Infections, above). As a consequence, natalizumab is currently licensed only as monotherapy.

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Preparations

Proprietary Preparations (details are given in Part 3)

Austral.: Tysabri; **Cz.:** Tysabri; **Gr.:** Tysabri; **Port.:** Tysabri; **UK:** Tysabri; **USA:** Tysabri.

Neroli Oil

Aurantii amari floris aetheroleum; Aurantii Amari Floris Aetheroleum (bitter-orange flower oil); Aurantii Amari Floris Etheroleum; Azahar; aceite esencial de; Bitter-Orange Flower Oil; Esencia de Azahar; Essência de Flor de Laranja; Karčaviasių citrinmedžių žiedų eterinis aliejus (bitter-orange flower oil); Keserü narancs virág olaj (bitter-orange flower oil); Neroli aetheroleum; Nérolí, huile essentielle de; Neroliolaj; Neroliölj; Olejek z kwiatu pomarańczy gorzkiej; Oleum Neroli; Orange Flower Oil; Orange-flower Oil; Šilice květu hořkého pomeranče.

Pharmacopoeias. In *Eur.* (see p.vii).

Ph. Eur. 6.2 (Neroli Oil). A clear, pale yellow or dark yellow liquid with a characteristic odour obtained by steam distillation from the fresh flowers of *Citrus aurantium* subsp. *aurantium* (*C. aurantium* subsp. *amara*). Relative density 0.863 to 0.880. Store in well-filled airtight containers at a temperature below 25°. Protect from light.

The symbol † denotes a preparation no longer actively marketed

Profile

Neroli oil is used as a flavour and in perfumery. It is also used in aromatherapy. Photosensitivity reactions have been reported.

Preparations

Proprietary Preparations (details are given in Part 3)

Multi-ingredient: **Chile:** Agua Melisa Carminativa; **Cz.:** Stopangin; **Ital.:** Controller; **Rus.:** Stopangin (Стронангин); **Switz.:** Hygiodermil; Kemeol; Oculosan.

Nerve Agents

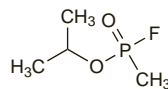
Gases nerviosos.

Sarin

GB; Sarin. Isopropyl methylphosphonofluoridate.

$C_4H_{10}FO_2P = 140.1$.

CAS — 107-44-8.

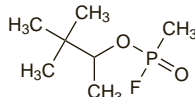


Soman

GD; Somán. Pinacolyl methylphosphonofluoridate.

$C_7H_{16}FO_2P = 182.2$.

CAS — 96-64-0.



Tabun

GA; Tabún. Ethyl N-dimethylphosphoramidocyanidate.

$C_5H_{11}N_2O_2P = 162.1$.

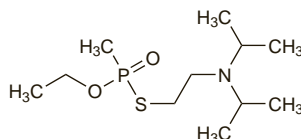
CAS — 77-81-6.

VX

Methylphosphonothioic acid S-[2-[bis(1-methylethyl)amino]ethyl] O-ethyl ester.

$C_{11}H_{26}NO_2PS = 267.4$.

CAS — 50782-69-9.



Profile

The nerve agents, sarin, soman, tabun, and VX (also referred to as 'nerve gases') used in chemical warfare are extremely potent inhibitors of cholinesterase. The effects of poisoning due to these agents, and their treatment, are similar to those for organophosphorus insecticides (p.2047) but as the nerve agents have a much greater intrinsic toxicity the symptoms of poisoning are more severe. Pyridostigmine has been given prophylactically to personnel at risk from exposure to nerve agents (see p.634).

References

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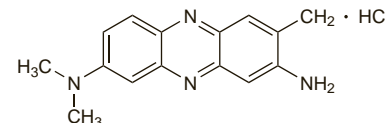
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Neutral Red

CI Basic Red 5; Colour Index No. 50040; Neutral Red Chloride; Nuclear Fast Red; Rojo neutro; Toluylene Red. 3-Amino-7-dimethylamino-2-methylphenazine hydrochloride.

$C_{15}H_{16}N_4 \cdot HCl = 288.8$.

CAS — 553-24-2.



Profile

Neutral red is used as an indicator for alkalinity and for preparing neutral-red paper. It is also used as a stain in microscopy.

It is a photoactive dye that has been tried in photodynamic therapy of recurrent herpes simplex infections, but with limited success.

Niaouli Oil

Essence de Niaouli; Gomenol.

Pharmacopoeias. In *It*.

Profile

Niaouli oil is a volatile oil, obtained by distillation from the fresh leaves of *Melaleuca viridiflora* or *Melaleuca quinquenervia* (Myrtaceae). It contains cineole and has similar actions to eucalyptus oil (p.2301). It is an ingredient of many preparations. Typical indications include respiratory tract congestion. Cajuput oil (p.2271) and melaleuca oil (p.2338) are also prepared from *Melaleuca* spp.

Preparations

Proprietary Preparations (details are given in Part 3)

Fr.: Gomenol; Gomenoleo; Huile Gomenolee.

Multi-ingredient: **Arg.:** Aseptobron; Aseptobron Ampicilina†; Di-Neumobron; Medex Rub; No-Tos Adultos; Otorinolol†; Refenax Caramelos Expectorantes; **Braz.:** Algeic; Baldin-CE†; Canfomenol†; Gripanil†; Griponia†; Gripsay; Killgrip†; Mentalol†; Ozonyl; Ozonyl Aquoso; Ozonyl Expectoante; Tetrapulmo; **Canad.:** Balmilil Suppositories; **Fr.:** Balsoleine; Biogaze†; Dinacode†; Hexaquine; Terpone; Vaseline Gomenolee; **Ger.:** Palatol†; **Ital.:** Paidorinovit; Rinantipiol†; Rinobalsamich†; Rinofomentil†; Rinopaidolo; Rinovit; **Pol.:** Argol Grip; **Port.:** Rectopulmo Adultos; Rectopulmo Infantil†; **Spain:** Broncovital†; Brota Rectal Balsamico; Pastillas Pectoral Kely; Rinobanedit; Vapores Pyt; Vitavox Pastillas†; **Switz.:** Libero! Bain†; Pulmex; Resorbane; **Turk.:** Buguseptil; Rinolar.

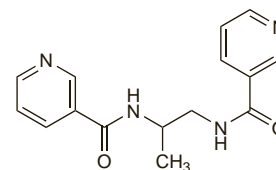
Nicaraven (rINN)

Nicaravén; Nicaravenum. (±)-N,N'-Propylenebis[nicotinamide].

Никаравен

$C_{15}H_{16}N_4O_2 = 284.3$.

CAS — 79455-30-4.



Profile

Nicaraven is under investigation as a cerebral vasodilator.

References

- Jain KK. Nicaraven for the treatment of cerebral vasospasm in subarachnoid haemorrhage. *Expert Opin Invest Drugs* 2000; **9**: 859–70.