6. Maddison P, *et al.* Leflunomide in rheumatoid arthritis: recommendations through a process of consensus. *Rheumatology (Oxford)* 2005; **44:** 280–6. Correction. *ibid.*; 569.
7. Silverman E, *et al.* Long-term open-label preliminary study of the safety and efficacy of leflunomide in patients with polyarticular-course juvenile rheumatoid arthritis. *Arthritis Rheum* 2005; **52:** 554–62.
8. Silverman E, *et al.* Leflunomide in Juvenile Rheumatoid Arthritis (JRA) Investigator Group. Leflunomide or methotrexate for juvenile rheumatoid arthritis. *N Engl J Med* 2005; **352:** 1655–66.

Spondyloarthropathies. References to the use of leflunomide in ankylosing spondylitis and psoriatic arthritis (see Spondyloarthropathies, p.13).

1. Cuchacovich M, Soto L. Leflunomide decreases joint erosions and induces reparative changes in a patient with psoriatic arthritis. *Ann Rheum Dis* 2002; **61:** 942–3.
2. Kaltwasser JP, *et al.* Treatment of Psoriatic Arthritis Study Group. Efficacy and safety of leflunomide in the treatment of psoriatic arthritis and psoriasis: a multinational, double-blind, randomized, placebo-controlled clinical trial. *Arthritis Rheum* 2004; **50:** 1939–50.
3. Haibel H, *et al.* Six months open label trial of leflunomide in active ankylosing spondylitis. *Ann Rheum Dis* 2005; **64:** 124–6.
4. van Denderen JC, *et al.* Double blind, randomised, placebo controlled study of leflunomide in the treatment of active ankylosing spondylitis. *Ann Rheum Dis* 2005; **64:** 1761–4.
5. Schmitt J, Wozel G. Psoriasis-arthritis—Langzeit-therapie zweier Patienten mit Leflunomid. *J Dtsch Dermatol Ges* 2005; **2:** 763–6.
6. Nash P, *et al.* Leflunomide improves psoriasis in patients with psoriatic arthritis: an in-depth analysis of data from the TOPAS study. *Dermatology* 2006; **212:** 238–49.

Preparations

USP 31: Leflunomide Tablets.

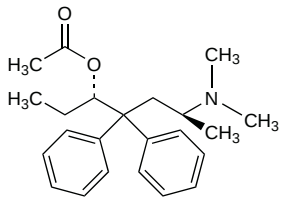
Proprietary Preparations (details are given in Part 3)
Arg.: Afiancen; Arava; Filartros; Inmunoartro; Lefluar; Molagar†; ***Austral.:*** Arabloc; Arava; ***Austria:*** Arava; ***Belg.:*** Arava; ***Braz.:*** Arava; ***Canad.:*** Arava; ***Chile:*** Arava; Artrimod; ***Cz.:*** Arava; ***Denm.:*** Arava; ***Fin.:*** Arava; ***Fr.:*** Arava; ***Ger.:*** Arava; ***Gr.:*** Arava; ***Hong Kong:*** Arava; ***Hung.:*** Arava; ***India:*** Arava; Lara†; Lefumide; Rumalef; ***Indon.:*** Arava; ***Irl.:*** Arava; ***Israel:*** Arava; ***Ital.:*** Arava; ***Malaysia:*** Arava; ***Mex.:*** Arava; ***Neth.:*** Arava; ***Norw.:*** Arava; ***NZ:*** Arava; ***Philipp.:*** Arava; ***Pol.:*** Arava; ***Port.:*** Arava; ***Rus.:*** Arava (Арава); ***S.Afr.:*** Arava; ***Singapore:*** Arava; ***Spain:*** Arava; ***Swed.:*** Arava; ***Switz.:*** Arava; ***Thai.:*** Arava; ***Turk.:*** Arava; ***UK:*** Arava; ***USA:*** Arava; ***Venez.:*** Arava.

Levacetylmethadol *(rINN)*

l-α-Acetylmethadol; LAAM (levacetylmethadol or levacetylmethadol hydrochloride); LAM; Levacetilmetadol; Levacetylmetadol; Lévacétylméthadol; Levacetylmethadolum; Levasetyylimetadoli; Levomethadyl Acetate *(USAN)*; *l*-Methadyl Acetate. (–)-4-Dimethylamino-1-ethyl-2,2-diphenylpentyl acetate.

Левацетилметадол

$C_{23}H_{31}NO_2$ = 353.5.
CAS — 1477-40-3 (levomethadyl); 34433-66-4 (levacetylmethadol).
ATC — N07BC03.
ATC Vet — QN07BC03.



Levacetylmethadol Hydrochloride *(rINNM)*

Hidrocloruro de levacetilmetadol; LAAM (levacetylmethadol or levacetylmethadol hydrochloride); Lévacétylméthadol, Chlorhydrate de; Levacetylmethadoli Hydrochloridum; Levomethadyl Acetate Hydrochloride *(USAN)*; MK-790. (–)-(3*S*,6*S*)-6-(Dimethylamino)-4,4-diphenyl-3-heptanol acetate hydrochloride.

Левацетилметадола Гидрохлорид

$C_{23}H_{31}NO_2$,HCl = 390.0.
CAS — 43033-72-3.
ATC — N07BC03.
ATC Vet — QN07BC03.

Profile

Levacetylmethadol, a diphenylheptane derivative, is a long-acting opioid analgesic (p.104); it is a derivative of methadone (p.84). It was used as the hydrochloride in the management of opioid dependence. However, the proarrhythmic effects led to its withdrawal in the EU and the USA.

Preparations

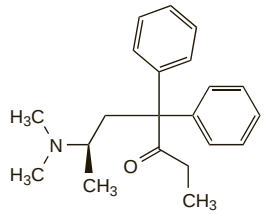
Proprietary Preparations (details are given in Part 3)
Irl.: OrLAAM†; ***Spain:*** OrLAAM†; ***USA:*** OrLAAM†.

Levomethadone Hydrochloride *(rINNM)* ⊗

Hidrocloruro de levometadona; Levometadonhidroklorid; Levometadonhydroklorid; Levometadonihydrokloridi; Levometadono hidrochloridas; Lévométhadone, chlorhydrate de; Levomethadon-hydrochlorid; Levomethadoni hydrochloridum; (–)-Methadone Hydrochloride. (–)-6-Dimethylamino-4,4-diphenylheptan-3-one hydrochloride.

Левометадона Гидрохлорид

$C_{21}H_{27}NO$,HCl = 345.9.
CAS — 125-58-6 (levomethadone); 5967-73-7 (levomethadone hydrochloride).



(levomethadone)

Pharmacopoeias. In *Eur.* (see p.vii).
Ph. Eur. 6.2 (Levomethadone Hydrochloride). A white or almost white, crystalline powder. Soluble in water; freely soluble in alcohol. Protect from light.

Profile

Levomethadone is an opioid analgesic (p.101). It is the active isomer of racemic methadone (p.82) and is used similarly, as the hydrochloride, in the treatment of severe pain and in the management of opioid dependence.

Preparations

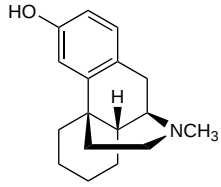
Proprietary Preparations (details are given in Part 3)
Ger.: L-Polamidon.

Levorphanol Tartrate *(BANM, rINNM)*

Levorphan Tartrate; Levorphanol Bitartrate; Lévorphanol, Tartrate de; Levorphanoli Tartras; Methorphinan Tartrate; Tartrato de levorfanol. (–)-9a-Methylmorphinan-3-ol hydrogen tartrate dihydrate.

Леворфанола Тартрат

$C_{17}H_{23}NO,C_4H_6O_6,2H_2O$ = 443.5.
CAS — 77-07-6 (levorphanol); 125-72-4 (anhydrous levorphanol tartrate); 5985-38-6 (levorphanol tartrate dihydrate).



(levorphanol)

Pharmacopoeias. In *US*.
USP 31 (Levorphanol Tartrate). A practically white, odourless, crystalline powder. Soluble 1 in 50 of water and 1 in 120 of alcohol; insoluble in chloroform and in ether. Store at a temperature of 25°, excursions permitted between 15° and 30°.

Profile

Levorphanol tartrate, a phenanthrene derivative, is a potent opioid analgesic (p.101) used in the management of moderate to severe pain. The analgesic effect usually begins about 10 to 60 minutes after oral doses and lasts up to about 8 hours. A usual initial oral dose of levorphanol tartrate is 2 mg repeated in 6 to 8 hours if necessary; the dose may be increased to 3 mg every 6 to 8 hours, adjusted according to response. The maximum initial daily dose in non-opioid tolerant patients should not exceed 12 mg. Elderly or debilitated patients may require lower doses; initial doses should be reduced by 50% or more.

Levorphanol tartrate has also been given by intramuscular, subcutaneous, or slow intravenous injection for pain relief and for premedication.

Preparations

USP 31: Levorphanol Tartrate Injection; Levorphanol Tartrate Tablets.

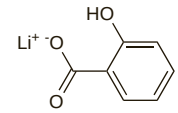
Proprietary Preparations (details are given in Part 3)
USA: Levo-Dromoran†.

Lithium Salicylate

Lithium Salicylicum; Salicilato de litio.

Лития Салицилат

$C_7H_5LiO_3$ = 144.1.
CAS — 552-38-5.



Profile

Lithium salicylate is a salicylic acid derivative (see Aspirin, p.20) that has been used in rheumatic disorders, but its use cannot be recommended because of the pharmacological effect of the lithium ion.

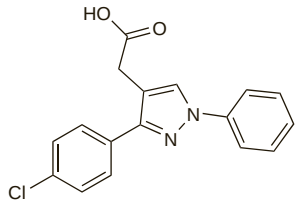
Lithium salicylate is used in homoeopathic medicine.

Lonazolac Calcium *(rINNM)*

Calcii Lonazolacum; Lonatsolaakkikalsium; Lonazolac Calcique; Lonazolaco cálcico; Lonazolacum Calcicum; Lonazolakkalcium. Calcium 3-(4-chlorophenyl)-1-phenylpyrazol-4-ylacetate.

Кальций Лоназолак

$C_{34}H_{24}CaCl_2N_4O_4$ = 663.6.
CAS — 53808-88-1 (lonazolac); 75821-71-5 (lonazolac calcium).
ATC — M01AB09.
ATC Vet — QM01AB09.



(lonazolac)

Profile

Lonazolac calcium is an NSAID (p.96). It has been given orally and rectally in the treatment of pain, inflammation, and musculoskeletal and joint disorders.

Preparations

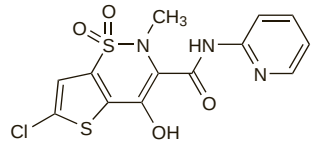
Proprietary Preparations (details are given in Part 3)
Austria: Irritren†; ***Ger.:*** Argun†; arthro akut†; ***Port.:*** Atrilon†.

Lornoxicam *(BAN, USAN, rINN)*

Chlorotenoxicam; Chlortenoxicam; CTX; Lornoksikaami; Lornoksikam; Lornoxicamum; Lornoxicanum; Lornoxikam; Ro-13-9297; TS-110. 6-Chloro-4-hydroxy-2-methyl-*N*-2-pyridyl-2*H*-thieno[2,3-e][1,2]-thiazine-3-carboxamide 1,1-dioxide.

Лорноксикам

$C_{13}H_{10}ClN_3O_4S_2$ = 371.8.
CAS — 70374-39-9.
ATC — M01AC05.
ATC Vet — QM01AC05.



Profile

Lornoxicam, an oxicam derivative, is an NSAID (p.96). It is used in musculoskeletal and joint disorders such as osteoarthritis and rheumatoid arthritis; it is also used in the treatment of other painful conditions including postoperative pain.

In the treatment of osteoarthritis and rheumatoid arthritis lornoxicam is given in an initial oral daily dose of 12 mg in two or three divided doses; if necessary the daily dose may be increased to a maximum of 16 mg.

Lornoxicam is given in oral doses of 8 to 16 mg daily for the treatment of pain. Similar doses may be given by intravenous or