Uses and Administration

Etoricoxib is an NSAID (p.96) reported to be a selective inhibitor of cyclo-oxygenase-2 (COX-2). It is used in the symptomatic relief of rheumatoid arthritis, osteoarthritis, and acute gouty arthritis.

In osteoarthritis, etoricoxib is given orally in a usual dose of 30 mg once daily, increased to 60 mg once daily if necessary. The recommended dose in rheumatoid arthritis is 90 mg once daily; higher doses of 120 mg once daily are used in gouty arthritis although such doses should only be used for the acute symptomatic period and for a maximum of 8 days. For dosage recommendations in patients with hepatic impairment, see below.

◊ References.

1. Patrignani P, *et al.* Clinical pharmacology of etoricoxib: a novel selective COX2 inhibitor. *Expert Opin Pharmacother* 2003; **4:** 265–84.
2. Dallob A, *et al.* Characterization of etoricoxib, a novel, selective COX-2 inhibitor. *J Clin Pharmacol* 2003 **43:** 573–85.
3. Martina SD, *et al.* Etoricoxib: a highly selective COX-2 inhibitor. *Ann Pharmacother* 2005; **39:** 854–62.

Administration in hepatic impairment. The maximum oral dose of etoricoxib in patients with mild hepatic impairment (Child-Pugh score of 5 to 6), regardless of indication, is 60 mg once daily; those with moderate impairment (Child-Pugh 7 to 9) should be given a maximum of 60 mg every other day or 30 mg once daily. Etoricoxib should not be given to patients with severe hepatic impairment (Child-Pugh 10 or more).

Musculoskeletal and joint disorders. The selective cyclo-oxygenase-2 (COX-2) inhibitor etoricoxib is used in the treatment of the musculoskeletal disorders osteoarthritis and rheumatoid arthritis (see p.11 and p.11, respectively). However, in the UK, it is recommended that the use of selective COX-2 inhibitors is limited to those patients considered to be at high risk of developing serious gastrointestinal problems if given a non-selective NSAID (see p.97).

Etoricoxib is also used in gouty arthritis (p.552) and has been tried in the treatment of ankylosing spondylitis (see Spondyloarthropathies, p.13).

References.

1. Cochrane DJ, *et al.* Etoricoxib. *Drugs* 2002; **62:** 2637–51.
2. Schumacher HR, *et al.* Randomised double blind trial of etoricoxib and indometacin in treatment of acute gouty arthritis. *BMJ* 2002; **324:** 1488–92.
3. Gottesdiener K, *et al.* Results of a randomized, dose-ranging trial of etoricoxib in patients with osteoarthritis. *Rheumatology (Oxford)* 2002; **41:** 1052–61.
4. Wiesenhutter CW, *et al.* Evaluation of the comparative efficacy of etoricoxib and ibuprofen for treatment of patients with osteoarthritis: a randomized, double-blind, placebo-controlled trial. *Mayo Clin Proc* 2005; **80:** 470–9.
5. van der Heijde D, *et al.* Evaluation of the efficacy of etoricoxib in ankylosing spondylitis: results of a fifty-two-week, randomized, controlled study. *Arthritis Rheum* 2005; **52:** 1205–15.
6. Curtis SP, *et al.* Etoricoxib in the treatment of osteoarthritis over 52-weeks: a double-blind, active-comparator controlled trial [NCT00242489]. *BMC Musculoskelet Disord* 2005; **6:** 58. Available at: http://www.biomedcentral.com/content/pdf/1471-2474-6-58.pdf (accessed 01/11/07)
7. Bingham CO, *et al.* Efficacy and safety of etoricoxib 30 mg and celecoxib 200 mg in the treatment of osteoarthritis in two identically designed, randomized, placebo-controlled, non-inferiority studies. *Rheumatology (Oxford)* 2007; **46:** 496–507.

Preparations

Proprietary Preparations (details are given in Part 3)

Arg.: Arcoxia; ***Austria:*** Arcoxia; Auxib; ***Belg.:*** Arcoxia; ***Braz.:*** Arcoxia; ***Cz.:*** Arcoxia; ***Denm.:*** Arcoxia; ***Fin.:*** Arcoxia; ***Fr.:*** Arcoxia; ***Ger.:*** Arcoxia; ***Gr.:*** Arcoxia; ***Hong Kong:*** Arcoxia; ***India:*** Ebov; Ecoxib†; Etoxib; Etozox; Kretos†; Nucoxia; ***Indon.:*** Arcoxia; ***Irl.:*** Arcoxia; ***Israel:*** Arcoxia; ***Ital.:*** Algix; Arcoxia; Tauxib; ***Malaysia:*** Arcoxia; ***Mex.:*** Arcoxia; ***Neth.:*** Arcoxia; Auxib; ***Norw.:*** Arcoxia; ***NZ:*** Arcoxia; ***Philipp.:*** Arcoxia; ***Port.:*** Arcoxia; Exxiv; Turox; ***Singapore:*** Arcoxia; ***Spain:*** Arcoxia; ***Swed.:*** Arcoxia; ***Thai.:*** Arcoxia; ***UK:*** Arcoxia; ***Venez.:*** Arcoxia.

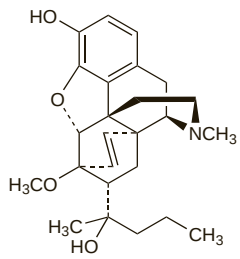
Etorphine Hydrochloride *(BANM, rINNM)*

Étorphine, Chlorhydrate d'; Etorphini Hydrochloridum; Hidrocloruro de etorfina; M-99; 19-Propylorvinol Hydrochloride. (6*R*,7*R*,14*R*)-7,8-Dihydro-7-[(1*R*)-1-hydroxy-1-methylbutyl]-6-*O*-methyl-6,14α-ethenomorphine hydrochloride; (2*R*)-2-[(–)-(5*R*,6*R*,7*R*,14*R*)-4,5-Epoxy-3-hydroxy-6-methoxy-9a-methyl-6,14-ethenomorphinan-7-yl]pentan-2-ol hydrochloride.

Эторфина Гидрохлорид

$C_{25}H_{33}NO_4$,HCl = 448.0.

CAS — 14521-96-1 (etorphine); 13764-49-3 (etorphine hydrochloride).



(etorphine)

Pharmacopoeias. In *BP(Vet)*.

BP(Vet) 2008 (Etorphine Hydrochloride). A white or almost white microcrystalline powder. Sparingly soluble in water and in alcohol; very slightly soluble in chloroform; practically insoluble in ether. A 2% solution in water has a pH of 4.0 to 5.5. Protect from light.

Dependence and Withdrawal

As for Opioid Analgesics, p.101.

Adverse Effects and Treatment

As for Opioid Analgesics in general, p.102. Etorphine is not used therapeutically in humans.

Etorphine hydrochloride is highly potent and rapid acting; minute amounts can exert serious effects leading to coma. It may be absorbed through skin and mucous membranes. It is thus advisable to inject an antagonist *immediately* after contamination of skin or mucous membranes with preparations containing etorphine hydrochloride and to wash the affected areas copiously. Accidental injection or needle scratch injuries should also be treated immediately by injecting an antagonist. Naloxone is preferred as the antagonist in medical treatment. However, veterinary preparations of etorphine are supplied with a preparation (*Revivon*) containing diprenorphine hydrochloride (p.1445) and this should be used for immediate first-aid antagonism if naloxone is not available.

Uses and Administration

Etorphine hydrochloride is a highly potent opioid analgesic (p.104) used for reversible neuroleptanalgesia (see Anaesthetic Techniques, p.1780) in veterinary medicine. It is given with acepromazine maleate or levomepromazine (*Immobilon*) to restrain animals and before minor veterinary surgery. The duration of action of etorphine is up to about 45 to 90 minutes depending on the species but it may be longer in man, especially if the large animal preparation is involved.

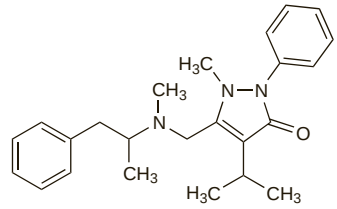
Famprofazone *(BAN, rINN)* ⊗

Famprofazona; Famprofazonum. 4-Isopropyl-2-methyl-3-[methyl(α-methylphenethyl)aminomethyl]-1-phenyl-3-pyrazolin-5-one.

Фампрофазон

$C_{24}H_{31}N_3O$ = 377.5.

CAS — 2288 1-35-2.



Profile

Famprofazone has analgesic and antipyretic properties and has been given orally, usually with other analgesics.

Pharmacokinetics. On ingestion, metabolic products of famprofazone include amfetamine and metamfetamine enantiomers,[1,2] which has led to false positive results on drug testing.[3] For sporting competition famprofazone was classified by the World Anti-Doping Agency as a stimulant.[4]

1. Greenhill B, *et al.* Metabolic profile of amphetamine and methamphetamine following administration of the drug famprofazone. *J Anal Toxicol* 2003; **27:** 479–84.
2. Rodriguez AT, *et al.* Metabolic profile of famprofazone following multidose administration. *J Anal Toxicol* 2004; **28:** 432–8.
3. Musshoff F, Kraemer T. Identification of famprofazone ingestion. *Int J Legal Med* 1998; **111:** 305–8.
4. World Anti-Doping Agency. The world anti-doping code: the 2008 prohibited list international standard. Available at: http://www.wada-ama.org/rtecontent/document/2008_List_En.pdf (accessed 24/07/08)

Felbinac *(BAN, USAN, rINN)*

CL-83544; Felbinaakki; Felbinaco; Felbinacum; Felbinak; LJC-10141. Biphenyl-4-ylacetic acid.

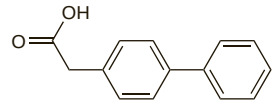
Фелбинак

$C_{14}H_{12}O_2$ = 212.2.

CAS — 5728-52-9.

ATC — M02AA08.

ATC Vet — QM02AA08.



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

Ph. Eur. 6.2 (Felbinac). A white or almost white, crystalline powder. Practically insoluble in water; sparingly soluble in alcohol; soluble in methyl alcohol.

Adverse Effects and Precautions

Mild local reactions such as erythema, dermatitis, and pruritus have occurred in patients using felbinac topically. More serious adverse effects including bullous dermatoses such as epidermal necrolysis and erythema multiforme, photosensitivity, anaphylaxis, and bronchospasm or wheeziness have also been reported. Gastrointestinal disturbances may occur.

Felbinac preparations should be avoided in patients with a history of hypersensitivity reactions to aspirin or other NSAIDs.

Incidence of adverse effects. The UK CSM had received 49 reports of adverse reactions associated with felbinac by October 1989, about 11 months after it was released on the UK market.[1] Bronchospasm or wheeziness was reported in 8 patients using felbinac gel. Four of these patients had a history of asthma of whom 3 were reported to have had a similar reaction to aspirin or other NSAIDs. Other reported reactions included skin rashes (17 cases), local application site reactions (7), and dyspepsia (6).

1. CSM. Felbinac (Traxam) and bronchospasm. *Current Problems 27* 1989. Also available at: http://www.mhra.gov.uk/home/idcplg?IdcService=GET_FILE&dDocName=CON2024444&RevisionSelectionMethod=LatestReleased (accessed 01/11/07)

Uses and Administration

Felbinac, an active metabolite of fenbufen (below), is an NSAID (p.99). It is used topically in the symptomatic treatment of musculoskeletal pain including that due to soft-tissue injuries. It is applied as a 3% gel or a 3.17% foam to unbroken skin over affected areas 2 to 4 times daily. The total daily dose of gel or foam should not exceed 25 g regardless of the size or number of affected areas. Therapy should be reviewed after 14 days.

Diisopropanolamine felbinac has been used similarly.

◊ References.

1. Hosie GAC. The topical NSAID, felbinac, versus oral ibuprofen: a comparison of efficacy in the treatment of acute lower back injury. *Br J Clin Res* 1993; **4:** 5–17.

Preparations

BP 2008: Felbinac Cutaneous Foam; Felbinac Gel.

Proprietary Preparations (details are given in Part 3)

Austria: Target†; ***Belg.:*** Flexfree; ***Ger.:*** Spalt Schmerz-Gel†; ***Irl.:*** Traxam; ***Ital.:*** Dolinac; Traxam; ***Jpn:*** Seltouch; ***Switz.:*** Dolo Target†; ***UK:*** Traxam.

Fenbufen *(BAN, USAN, rINN)*

CL-82204; Fenbufeeni; Fenbufén; Fenbufenas; Fenbufène; Fenbufenum. 4-(Biphenyl-4-yl)-4-oxobutyric acid.

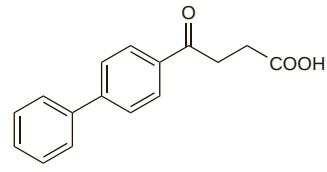
Фенбуфен

$C_{16}H_{14}O_3$ = 254.3.

CAS — 36330-85-5.

ATC — M01AE05.

ATC Vet — QM01AE05.



Pharmacopoeias. In *Chin.*, *Eur.* (see p.vii), and *Jpn.*

Ph. Eur. 6.2 (Fenbufen). A white or almost white, fine crystalline powder. Very slightly soluble in water; slightly soluble in alcohol, in acetone, and in dichloromethane.

Adverse Effects, Treatment, and Precautions

As for NSAIDs in general, p.96, although the commonest adverse effects of fenbufen are skin rashes,