also occur. Diflunisal is distributed into breast milk with concentrations reported to be about 2 to 7% of those in plasma.

◊ References.

1. Loewen GR, *et al.* Effect of dose on the glucuronidation and sulphation kinetics of diflunisal in man: single dose studies. *Br J Clin Pharmacol* 1988; **26:** 31–9.
2. Eriksson L-O, *et al.* Influence of renal failure, rheumatoid arthritis and old age on the pharmacokinetics of diflunisal. *Eur J Clin Pharmacol* 1989; **36:** 165–74.
3. Verbeeck RK, *et al.* The effect of multiple dosage on the kinetics of glucuronidation and sulphation of diflunisal in man. *Br J Clin Pharmacol* 1990; **29:** 381–9.
4. Macdonald JI, *et al.* Sex-difference and the effects of smoking and oral contraceptive steroids on the kinetics of diflunisal. *Eur J Clin Pharmacol* 1990; **38:** 175–9.
5. Nuernberg B, *et al.* Pharmacokinetics of diflunisal in patients. *Clin Pharmacokinet* 1991; **20:** 81–9.

Uses and Administration

Diflunisal is a salicylic acid derivative (see Aspirin, p.23) but it is not hydrolysed to salicylate and its clinical effects resemble more closely those of propionic acid derivative NSAIDs such as ibuprofen (p.65). Diflunisal is given in the acute or long-term management of mild to moderate pain, and pain and inflammation associated with osteoarthritis and rheumatoid arthritis. The usual initial oral dose for pain relief is 1 g followed by a maintenance dose of 500 mg every 12 hours. In some patients 250 mg every 8 to 12 hours may be sufficient but others may require 500 mg every 8 hours. Maintenance doses greater than 1.5 g daily are not recommended. The usual oral dose for arthritis is 500 mg to 1 g daily in 2 divided doses. Doses may need to be reduced in patients with renal impairment, see below.

Diflunisal arginine has been used similarly given by mouth or by intramuscular or intravenous injection.

Administration in renal impairment. Diflunisal may need to be given in reduced dosage in patients with significant renal impairment and should not be given when renal impairment is severe.

Preparations

BP 2008: Diflunisal Tablets;
USP 31: Diflunisal Tablets.

Proprietary Preparations (details are given in Part 3)
Austral.: Dolobid†; ***Austria:*** Fluniget; ***Belg.:*** Biartac†; Diflusal; ***Denm.:*** Donobid†; ***Fin.:*** Donobid†; ***Fr.:*** Dolobis†; ***Gr.:*** Analeric; ***Irl.:*** Dolobid†; ***Israel:*** Dolobid†; ***Ital.:*** Artrodol; Dolobid†; ***Mex.:*** Dolobid†; ***Neth.:*** Dolobid; Dolocid; ***Norw.:*** Donobid; ***Port.:*** Dolobid†; Flunidor†; ***Spain:*** Dolobid; ***Swed.:*** Donobid; ***Switz.:*** Unisalt†; ***Thai.:*** Dolobid; ***Turk.:*** Dolphin; ***UK:*** Dolobid†; ***USA:*** Dolobid†; ***Venez.:*** Dolobid†.

Dihydrocodeine Phosphate

(BANM, rINNM)

Dihydrocodéine, Phosphate de; Dihydrocodeini Phosphas; Fosfato de dihidrocodeína; Hydrocodeine Phosphate.

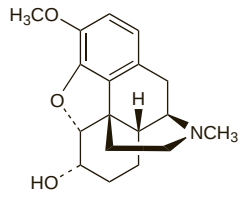
Дигидрокодеина Фосфат

$C_{18}H_{23}NO_3,H_3PO_4$ = 399.4.

CAS — 24204-13-5.

ATC — N02AA08.

ATC Vet — QN02AA08.



(dihydrocodeine)

Pharmacopoeias. In *Jpn.*

Dihydrocodeine Tartrate *(BANM, rINNM)*

Dihidrokodein-hidrogén-tartrát; Dihidrokodeino-vandenilio tartratas; Dihydrocodeine Acid Tartrate; Dihydrocodeine Bitartrate; Dihydrocodeine Hydrogen Tartrate; Dihydrocodéine, hydrogénotartrate de; Dihydrocodéine, Tartrate de; Dihydrocodeini Bitartras; Dihydrocodeini hydrogenotartras; Dihydrocodeini Tartras; Dihydrokodeiinivetytartratti; Dihydrokodein-tartarát; Dihydrokodeinvätetartrat; Dihydrokodeiny wodorowinian; Drocode Bitartrate; Hydrocodeine Bitartrate; Tartrato de dihidrocodeína. 4,5-Epoxy-3-methoxy-17-methylmorphinan-6-ol hydrogen tartrate.

Дигидрокодеина Тартрат

$C_{18}H_{23}NO_3,C_4H_6O_6$ = 451.5.

CAS — 125-28-0 (dihydrocodeine); 5965-13-9 (dihydrocodeine tartrate).

NOTE. Compounded preparations of dihydrocodeine tartrate may be represented by the following names:

- Co-dydramol (*BAN*)—dihydrocodeine tartrate 1 part and paracetamol 50 parts (w/w).

The following terms have been used as 'street names' (see p.vi) or slang names for various forms of dihydrocodeine tartrate:
DFs; Diffs; Duncan Flockharts.

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

Ph. Eur. 6.2 (Dihydrocodeine Hydrogen Tartrate; Dihydrocodeine Tartrate BP 2008). A white or almost white crystalline powder. Freely soluble in water; sparingly soluble in alcohol; practically insoluble in cyclohexane. A 10% solution in water has a pH of 3.2 to 4.2. Protect from light.

USP 31 (Dihydrocodeine Bitartrate). pH of a 10% solution in water is between 3.2 and 4.2. Store in airtight containers.

Dependence and Withdrawal

As for Opioid Analgesics, p.101.

Dihydrocodeine has been subject to abuse (see under Precautions, below).

Adverse Effects and Treatment

As for Opioid Analgesics in general, p.102; adverse effects of dihydrocodeine are less pronounced than those of morphine.

Overdosage. A 29-year-old man who had taken 2.1 g of dihydrocodeine had biochemical evidence of acute renal and hepatic impairment when admitted 13 hours after the overdose.[1] Severe life-threatening respiratory depression subsequently developed 36 hours after the overdose and only responded to treatment with naloxone after large doses (a total of 46.6 mg of naloxone) over a long period (106 hours). Commenting on this report some questioned the evidence for hepatic impairment and considered that the raised liver enzyme values were of muscular origin as a result of rhabdomyolysis.[2-4] Rhabdomyolysis may also have contributed to renal failure.

An anaphylactoid reaction after an overdose with an unspecified number of dihydrocodeine tablets[5] appeared to respond to intravenous naloxone.

1. Redfern N. Dihydrocodeine overdose treated with naloxone infusion. *BMJ* 1983; **287:** 751–2.
2. Buckley BM, Vale JA. Dihydrocodeine overdose treated with naloxone infusion. *BMJ* 1983; **287:** 1547.
3. Blain PG, Lane RJM. Dihydrocodeine overdose treated with naloxone infusion. *BMJ* 1983; **287:** 1547.
4. Wen P. Dihydrocodeine overdose treated with naloxone infusion. *BMJ* 1983; **287:** 1548.
5. Panos MZ, *et al.* Use of naloxone in opioid-induced anaphylactoid reaction. *Br J Anaesth* 1988; **61:** 371.

Pain. For reference to increased postoperative pain associated with the use of dihydrocodeine, see under Uses and Administration, below.

Precautions

As for Opioid Analgesics in general, p.103.

Abuse. Dihydrocodeine has been reported to be widely abused by opiate addicts.[1-4]

1. Swadi H, *et al.* Misuse of dihydrocodeine tartrate (DF 118) among opiate addicts. *BMJ* 1990; **300:** 1313.
2. Robertson JR, *et al.* Misuse of dihydrocodeine tartrate (DF 118) among opiate addicts. *BMJ* 1990; **301:** 119.
3. Strang J, *et al.* Misuse of dihydrocodeine tartrate (DF 118) among opiate addicts. *BMJ* 1990; **301:** 119.
4. Seymour A, *et al.* The role of dihydrocodeine in causing death among drug users in the west of Scotland. *Scott Med J* 2001; **46:** 143–6.

The elderly. Despite some renal impairment an elderly group of patients[1] appeared to handle dihydrocodeine similarly to healthy young subjects. There was marked variability in all measurements and on the basis of this study no clear conclusions on guidelines for dosage in elderly patients could be drawn. However, the recommendation that small doses be given initially with subsequent doses according to response was endorsed.

1. Davies KN, *et al.* The effect of ageing on the pharmacokinetics of dihydrocodeine. *Eur J Clin Pharmacol* 1989; **37:** 375–9.

Renal impairment. Caution is necessary when giving dihydrocodeine to patients with severe renal impairment. Severe narcosis occurred in a patient with anuria and on maintenance haemodialysis after she had received dihydrocodeine orally for 4 days.[1] She responded to treatment with naloxone.

See also under Pharmacokinetics, below.

1. Barnes JN, Goodwin FJ. Dihydrocodeine narcosis in renal failure. *BMJ* 1983; **286:** 438–9.

Interactions

For interactions associated with opioid analgesics, see p.103.

Quinidine. Dihydrocodeine is metabolised via the cytochrome P450 isoenzyme CYP2D6 to active metabolites, which may perhaps play a role in its analgesic activity in extensive metabolisers; quinidine impairs this metabolism, but a study in 11 healthy subjects did not find any reduced analgesic activity when dihydrocodeine was given with quinidine, despite a three- to fourfold reduction in plasma concentrations of the metabolite dihydromorphine.[1]

1. Wilder-Smith CH, *et al.* The visceral and somatic antinociceptive effects of dihydrocodeine and its metabolite, dihydromorphine: a cross-over study with extensive and quinidine-induced poor metabolizers. *Br J Clin Pharmacol* 1998; **45:** 575–81.

Pharmacokinetics

After oral doses peak concentrations of dihydrocodeine occur after about 1.2 to 1.8 hours; oral bioavailability is only about 20%, probably because of substantial first-pass metabolism in the gut wall or liver. Dihydrocodeine is metabolised in the liver via the cytochrome P450 isoenzyme CYP2D6, to dihydromorphine, which has potent analgesic activity, although the analgesic effect of dihydrocodeine appears to be primarily due to the parent compound; some is also converted via CYP3A4 to nordihydrocodeine. Dihydrocodeine is excreted in urine as unchanged drug and metabolites, including glucuronide conjugates. Elimination half-life is reported to range from about 3.5 to 5 hours.

◊ References.

1. Rowell FJ, *et al.* Pharmacokinetics of intravenous and oral dihydrocodeine and its acid metabolites. *Eur J Clin Pharmacol* 1983; **25:** 419–24.
2. Fromm MF, *et al.* Dihydrocodeine: a new opioid substrate for the polymorphic CYP2D6 in humans. *Clin Pharmacol Ther* 1995; **58:** 374–82.
3. Ammon S, *et al.* Pharmacokinetics of dihydrocodeine and its active metabolite after single and multiple dosing. *Br J Clin Pharmacol* 1999; **48:** 317–22.
4. Webb JA, *et al.* Contribution of dihydrocodeine and dihydromorphine to analgesia following dihydrocodeine administration in man: a PK-PD modelling analysis. *Br J Clin Pharmacol* 2001; **52:** 35–43.

Renal impairment. The pharmacokinetics of dihydrocodeine tartrate, given as a single oral 60-mg dose, were affected in 9 patients with chronic renal failure treated with haemodialysis when compared with 9 healthy subjects.[1] Time to peak plasma concentration in those with renal failure was 3 hours compared with 1 hour in healthy subjects; the area under the plasma concentration-time curve was greater in those with renal failure; and after 24 hours dihydrocodeine was still detectable in the plasma of all renal failure patients, but in only 3 of the healthy subjects.

1. Barnes JN, *et al.* Dihydrocodeine in renal failure: further evidence for an important role of the kidney in the handling of opioid drugs. *BMJ* 1985; **290:** 740–2.

Uses and Administration

Dihydrocodeine is an opioid analgesic (p.104). It is related to codeine (p.38) and has similar analgesic activity. Dihydrocodeine is used for the relief of moderate to severe pain, often in combination preparations with paracetamol. It has also been used as a cough suppressant.

For **analgesia** the usual oral dose of dihydrocodeine tartrate is 30 mg after food every 4 to 6 hours; up to 240 mg daily may be given for severe pain. Modified-release preparations are available for twice daily dosage in patients with chronic severe pain.

Dihydrocodeine tartrate may also be given by deep subcutaneous or intramuscular injection in doses of up to 50 mg every 4 to 6 hours.

For details of doses in children, see below.

As a **cough suppressant** dihydrocodeine tartrate may be given in oral doses of 10 to 30 mg up to three times daily.

Dihydrocodeine phosphate has also been used. Other salts of dihydrocodeine used, mainly for their antitussive effects, include the hydrochloride, the polistirex, and the thiocyanate. Dihydrocodeine polistirex has also been used in modified-release preparations.

Administration in children. In the UK, dihydrocodeine tartrate may be given orally, or by deep subcutaneous or intramuscular injection, for analgesia in children aged from 4 to 12 years in usual doses of 0.5 to 1 mg/kg (to a maximum of 30 mg) every 4 to 6 hours; older children may be given the usual adult dose (see above). Although unlicensed in children under 4 years, the *BNFC* suggests giving those aged 1 to 4 years 500 micrograms/kg every 4 to 6 hours.

Dyspnoea. Dihydrocodeine has been reported[1] to have produced benefit in normocapnic patients severely disabled by breathlessness due to chronic airflow obstruction. A dose of

15 mg was taken 30 minutes before exercise up to three times a day.

1. Johnson MA, *et al.* Dihydrocodeine for breathlessness in 'pink puffers'. *BMJ* 1983; **286:** 675–7.

Pain. Dihydrocodeine is used in the management of moderate to severe pain. However, dose-related increase in postoperative pain has been seen[1] in patients given 25 or 50 mg dihydrocodeine tartrate intravenously after dental surgery, and it has been proposed that dihydrocodeine might act as an antagonist in situations where acute pain was accompanied by high opioid activity.[2] Systematic review of the use of single oral doses of dihydrocodeine has indicated that these are insufficient to provide adequate relief of postoperative pain, and that dihydrocodeine is less effective than ibuprofen.[3]

1. Seymour RA, *et al.* Dihydrocodeine-induced hyperalgesia in postoperative dental pain. *Lancet* 1982; **i:** 1425–6.
2. Henry JA. Dihydrocodeine increases dental pain. *Lancet* 1982; **ii:** 223.
3. Edwards JE, *et al.* Single dose dihydrocodeine for acute postoperative pain. Available in The Cochrane Database of Systematic Reviews; Issue 2. Chichester: John Wiley; 2000 (accessed 26/06/08).

Preparations

BP 2008: Co-dydramol Tablets; Dihydrocodeine Injection; Dihydrocodeine Oral Solution; Dihydrocodeine Tablets.

Proprietary Preparations (details are given in Part 3)

Austral.: Paracodin; Rikodeine; ***Austria:*** Codidol; Dehace; Paracodin; ***Belg.:*** Codicontin; Paracodine; ***Cz.:*** DHC Continus; ***Fr.:*** Dicodin; ***Ger.:*** DHC; Paracodin; Paracodin N; Remedacen†; Tiamon Mono; ***Gr.:*** Condugesic†; ***Hong Kong:*** DF 118; ***Hung.:*** DHC; Hydrocodin; ***Irl.:*** DF 118; DHC Continus; Paracodin; ***Ital.:*** Paracodina; ***Malaysia:*** Codesic†; DF 118; ***NZ:*** DHC Continus; ***Pol.:*** DHC Continus; ***Port.:*** Didor†; ***S.Afr.:*** DF 118; Paracodin; ***Spain:*** Contugesic†; Paracodina; Tosidrin; ***Switz.:*** Codicontin; Paracodin; ***UK:*** DF 118; DHC Continus.

Multi-ingredient: ***Arg.:*** Lentusin; ***Austral.:*** Codox; ***Austria:*** Paracodin; ***Ger.:*** Antitussivum Burger N†; Makatussin Tropfen forte†; Paracodin retard†; ***Hong Kong:*** Codaewon; ***Irl.:*** Paramol; ***Ital.:*** Cardiazol-Paracodina; Paracodina; ***Jpn:*** Colgen Kowa IB Toumei; ***Malaysia:*** Dihydrocodeine P; ***Switz.:*** Escotussin; Makatussin Comp; Paracodin retard†; ***UK:*** Paramol; Remedeine; ***USA:*** DHC Plus; DiHydro-CP; DiHydro-GP; DiHydro-PE; Duohist DH; Novahistine DH; Pancof; Pancof PD; Pancof-EXP; Panlor; Synalgos-DC.

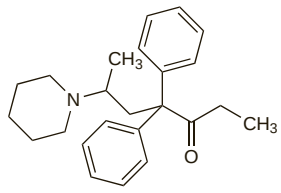
Dipipanone Hydrochloride *(BANM, rINNM)*

Dipipanone, Chlorhydrate de; Dipipanoni Hydrochloridum; Hidrocloruro de dipipanona; Phenylpiperone Hydrochloride; Piperidyl Methadone Hydrochloride; Piperidylamidone Hydrochloride. (±)-4,4-Diphenyl-6-piperidinoheptan-3-one hydrochloride monohydrate.

Дипипанона Гидрохлорид

$C_{24}H_{31}NO,HCl,H_2O$ = 404.0.

CAS — 467-83-4 (dipipanone); 856-87-1 (dipipanone hydrochloride).



(dipipanone)

Pharmacopoeias. In *Br.*

BP 2008 (Dipipanone Hydrochloride). An odourless or almost odourless, white, crystalline powder. Sparingly soluble in water; freely soluble in alcohol and in acetone; practically insoluble in ether. A 2.5% solution in water has a pH of 4.0 to 6.0.

Profile

Dipipanone hydrochloride is an opioid analgesic (p.101) structurally related to methadone (p.82). Used alone it is reported to be less sedating than morphine. It is used in the treatment of moderate to severe pain.

Dipipanone hydrochloride is usually given in combination preparations with the antiemetic cyclizine hydrochloride to reduce the incidence of nausea and vomiting, but the use of such preparations is not recommended for the management of chronic pain, as the antiemetic is usually only required for the first few days of treatment. The usual oral dose of dipipanone hydrochloride is 10 mg, repeated every 6 hours. The dose may be increased if necessary in increments of 5 mg; it is seldom necessary to exceed a dose of 30 mg. After an oral dose the analgesic effect begins within an hour and lasts about 4 to 6 hours.

Preparations of dipipanone hydrochloride with cyclizine hydrochloride are subject to abuse.

Preparations

BP 2008: Dipipanone and Cyclizine Tablets.

Proprietary Preparations (details are given in Part 3)

Multi-ingredient: ***Hong Kong:*** Wellconal†; ***Irl.:*** Diconal†; ***S.Afr.:*** Wellconal; ***UK:*** Diconal.

Dipyrone *(BAN, USAN)*

Metamizole Sodium *(pINN)*; Aminopyrine-sulphonate Sodium; Analginum; Dipiron; Dipyron; Dipyroni; Dipyronum; Metamitsolinatrium; Metamizol; Metamizol sódico; Metamizol sodná sůl monohydrát; Metamizol sodowy; Metamizol Sodyum; Métamizole sodique; Metamizolnatrium; Metamizol-nátrium; Metamizolo natrio druska; Metamizolum natricum; Metamizolum Natricum Monohydricum; Methampyrone; Methylmelubrin; Natrium Novaminsulfonicum; Noramidazophenum; Novamidazofen; Novaminsulfone Sodium; NSC-73205; Sodium Noramidopyrine Methanesulphonate; Sulpyrine. Sodium *N*-(2,3-dimethyl-5-oxo-1-phenyl-3-pyrazolin-4-yl)-*N*-methylaminomethanesulphonate monohydrate.

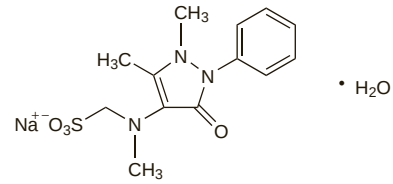
Метамизол Натрий

$C_{13}H_{16}N_3NaO_4S,H_2O$ = 351.4.

CAS — 68-89-3 (anhydrous dipyrone); 5907-38-0 (dipyrone monohydrate).

ATC — N02BB02.

ATC Vet — QN02BB02.



NOTE. Confusingly the term dipyrone sodium also appears to be used synonymously for dipyrone itself. Dipyrone is referred to in some countries by the colloquial name 'Mexican aspirin'. The names noraminophenazonum and novaminsulfon have apparently been applied to dipyrone, but it is not clear whether these are the sodium salt.

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

Ph. Eur. 6.2 (Metamizole Sodium; Dipyrone BP 2008). A white or almost white crystalline powder. Very soluble in water; soluble in alcohol. Protect from light.

Adverse Effects and Precautions

Use of dipyrone is associated with an increased risk of agranulocytosis and with shock.

◊ References.
1. Levy M. Hypersensitivity to pyrazolones. *Thorax* 2000; **55** (suppl 2): S72–S74.

Effects on the blood. Data collected from 8 population groups in Europe and Israel by the International Agranulocytosis and Aplastic Anemia Study[1] revealed that there was a significant regional variability in the rate-ratio estimate for agranulocytosis and dipyrone (0.9 in Budapest to 33.3 in Barcelona). Although a large relative increase in risk between agranulocytosis and use of dipyrone was found, the incidence was less than some previous reports had suggested.

Blood dyscrasias such as agranulocytosis and granulocytopenia have continued to be reported where dipyrone remains available.[2-7]

1. The International Agranulocytosis and Aplastic Anemia Study. Risks of agranulocytosis and aplastic anemia: a first report of their relation to drug use with special reference to analgesics. *JAMA* 1986; **256:** 1749–57.
2. Hedenmalm K, Spigset O. Agranulocytosis and other blood dyscrasias associated with dipyrone (metamizole). *Eur J Clin Pharmacol* 2002; **58:** 265–74.
3. Maj S, Lis Y. The incidence of metamizole sodium-induced agranulocytosis in Poland. *J Int Med Res* 2002; **30:** 488–95.
4. Maj S, Centkowski P. A prospective study of the incidence of agranulocytosis and aplastic anemia associated with the oral use of metamizole sodium in Poland. *Med Sci Monit* 2004; **10:** PI93–PI95.
5. Ibanez L, *et al*. Agranulocytosis associated with dipyrone (metamizol). *Eur J Clin Pharmacol* 2005; **60:** 821–9.
6. Hamerschlak N, Cavalcanti AB. Neutropenia, agranulocytosis and dipyrone. *Sao Paulo Med J* 2005; **123:** 247–9.
7. Garcia S, *et al.* Dipyrone-induced granulocytopenia: a case for awareness. *Pharmacotherapy* 2006; **26:** 440–2.

Effects on the skin. Dipyrone has been considered responsible for a case of drug-induced toxic epidermal necrolysis.[1]

1. Roujeau J-C, *et al*. Sjögren-like syndrome after drug-induced toxic epidermal necrolysis. *Lancet* 1985; **i:** 609–11.

Hypersensitivity. Cross-sensitivity between aspirin and dipyrone occurred in a patient.[1] Dipyrone produced an exacerbation of dyspnoea, cyanosis, and respiratory arrest.

1. Bartoli E, *et al*. Drug-induced asthma. *Lancet* 1976; **i:** 1357.

Porphyria. Dipyrone has been associated with acute attacks of porphyria and is considered unsafe in porphyric patients.

Pharmacokinetics

After oral doses dipyrone is rapidly hydrolysed in the gastrointestinal tract to the active metabolite 4-methyl-amino-antipyrine, which after absorption undergoes metabolism to 4-formyl-amino-antipyrine and other metabolites. Dipyrone is also rapidly undetectable in plasma after intravenous doses. None of the metabolites of dipyrone are extensively bound to plasma proteins. Most of a dose is excreted in the urine as metabolites. Dipyrone metabolites are also distributed into breast milk.

◊ References.
1. Heinemeyer G, *et al*. The kinetics of metamizol and its metabolites in critical-care patients with acute renal dysfunction. *Eur J Clin Pharmacol* 1993; **45:** 445–50.
2. Levy M, *et al.* Clinical pharmacokinetics of dipyrone and its metabolites. *Clin Pharmacokinet* 1995; **28:** 216–34.
3. Zylber-Katz E, *et al.* Dipyrone metabolism in liver disease. *Clin Pharmacol Ther* 1995; **58:** 198–209.

Uses and Administration

Dipyrone is the sodium sulfonate of aminophenazone (p.19) and has similar properties. Because of the risk of serious adverse effects, in many countries its use is considered justified only in severe pain or fever where no alternative is available or suitable. Dipyrone has been given orally in doses of 0.5 to 4 g daily in divided doses. It has also been given by intramuscular or intravenous injection and rectally as a suppository.

A magnesium congener of dipyrone, metamizole magnesium has been used similarly to dipyrone as has the calcium congener metamizole calcium.

Preparations

Proprietary Preparations (details are given in Part 3)

Arg.: Algiopiret†; Analgina; Dioxadol; Dipigrand; Ditral; Integrobe; Lisalgil; Novacler; Novalgina; Novemina; Unibios Simple; ***Austria:*** Inalgon Neu; Novalgin; Spasmo Inalgon Neu; ***Belg.:*** Analgine; Novalgine; ***Braz.:*** Algirona; Anador; Analgesil; Analgex†; Apiron; Baralgin; Conmel; Difebril; Dipimax; Dipirex†; Dipiron; Dipironax†; Dipix; Diprin; Doralex†; Dorfebril†; Dorilan†; Dornal†; Dorona; Dorpinon; DS500†; Findor†; Magnodor†; Magnopyrol; Maxiliv; Multiralgim†; Nofebrin; Novagreen; Novalgex†; Novalgina; Pirofebran†; Pirogina; Prodopirona; Sifpirona†; Termonal; Termopirona; Termoprin; Toloxin†; Zitalgin†; ***Chile:*** Baralgina M; Conmel; Novalgina†; ***Cz.:*** Novalgin; ***Fr.:*** Novalgine†; ***Ger.:*** Analgin; Berlosin; Metalgin†; Nopain; Novalgin; Novaminsulfon; ***Hong Kong:*** Metilon†; ***Hung.:*** Algopyrin; Algozone; Novalgin; Panalgorin; ***India:*** Novalgin; ***Indon.:*** Antalgin; Antrain; Cornalgin; Foragin; Licogin; Norages; Novalgin; Panstop; Pragesol; Pyronal; Ronalgin; Scanalgin; Unagen; ***Israel:*** Novalgin; Optalgin; Phanalgin; V-Talgin; ***Ital.:*** Novalgina; ***Mex.:*** Alnex; Anaprol; Anapyrol; Apixol†; Avafontan; Avaldrian†; Ayoral Simple†; Carofrit†; Conmel; Dalmasin; Dalsin; Defin; Dimetirol; Dipydol; Dofisan; Dolgan; Dolizol; Dolofur; Domenal; Exalgin†; Exodalina; Fandall; Fardolpin; Farlin; Indigon; Lozima; Mach-2; Macodin; Magnil; Magnol; Magnolonas; Magnopyrol; Magsons; Mayoprina; Mecoten†; Medipirol; Mermid; Messelfenil; Metapirona; Midelin; Minoral; Mizoltec; Modimet; Neo-Melubrina; Neomelin; Neosedal; Paleodina; Pifrol; Piramagno†; Pirandall; Pirasod; Pirinovag; Piromebrina; Poloren†; Precidona; Prodolina; Prolubrin; Pyranol; Pyron; Suprin; Termonil; Utidol; Vegal; ***Neth.:*** Novalgin; ***Pol.:*** Pyrahexal; Pyralgin; Pyralginum; ***Port.:*** Conmel†; Dolocalma; Nolotil; Novalgina†; ***Rus.:*** Analgin (Анальгин); Baralgin M (Баралгин М); ***Spain:*** Algi; Citdolal†; Dolemicin; Lasain; Neo Melubrina; Nolotil; ***Switz.:*** Minalgine; Novalgine; ***Thai.:*** Acodon†; Centagin; Deparon; Genergin; Invoigin; Kno-Paine; Medalgin†; Mezabox; Nivagin; Novalgin; Olangin; ***Turk.:*** Adepiron; Andolor; Baralgin M; Devaljin; Feninox; Geralgine; Kafalgin; Nogesic; Novakom-S; Novalgin; Novo-Plan; Novopyrine; Sebon; Veraljin; ***Urug.:*** Dolanet; ***Venez.:*** Bral; Buscadol†; Combanal†; Combaron†; Conmel; Delsal; Dipamona; Dipidol; Klinomel†; Nimel†; Noval†; Novalcina; Piradro†; Piradrops Simple†; Promel; Rosadol†.

Multi-ingredient: ***Arg.:*** Antispasmina; Apasmo; Apasmo Compuesto; Artifene; Bellatotal; Buscapina Compositum; Calmopirin; Canovex†; Cifespasmo Compuesto; Colobolina D; Craun†; Cronopen Balsamico; D-P†; Dentolina Plus; Dextro + Dipirona; Dextrodip; Dioxadol; Dresan Biotic†; Dresan†; Espasmo Biotenk; Espasmo Dioxadol; Fadagrip; Febrimicina†; Flexicamin A; Gastrolina Compuesta; Gobbicalm; Integrobe Plus; Keptan Compuesto†; Klosidol; Klosidol B1 B6 B12; Lisalgil Compuesto; Luar-G Compositum; Migra Dioxadol; Migral; Migral Compositum; Multin; Novopasmil Compuesto; Paratropina Compuesta; Pasmodina Compuesta; Pasmosedan Compuesto†; Rupe-N Compuesto; Saldeva†; Solacil; Sumal; Tetralgin; Tetralgin Novo; Vicefeno; ***Austria:*** Buscopan Compositum; Spasmium comp; ***Belg.:*** Buscopan Compositum; ***Braz.:*** Algexin; Algice; Aminocid†; Analgin C-R; Analgosedan†; Analverin Composto†; Analverin†; Anapirol†; Baldin-CE†; Banidor†; Bicavine; Binospan; Bioscina Composta†; Bromalgina†; Broncopinol†; Buscopan Composto; Buscoveran Composto; Butilamin; Cafalena†; Cefaldina; Cefaliv; Codeverin†; Dalgex; Dexalgen; Dimex†; Dipirol†; Disbuspan; Doralgex; Doralgina; Dorciflex; Dorflex; Dorcin; Doridina; Dorilen; Doriless; Dorscopena†; Dorsedin; Dorspan; Dorzone; Ductopan†; Enxak; Espasmocron; Espasmodid Composto; Eucaliptan†; Flexalgex; Flexdor; Gripanil†; Gripion†; Gripomatine†; Griponia†; Gripsay; Hioariston; Hiospan Composto; Inib-Dor†; Itaiflex†; Killgrip†; Kindpasm; Lisador; Melpaz†; Migraliv; Migranette; Mionevrix; Miorrelax; Neocopan; Neomigran†; Neosaldina; Neuralgina; Nevralgex; Par; Pasmalgin†; Plenocedan†; Pulmorien†; Relaflex; Rielex; Sedabel†; Sedalene; Sedalex; Sedalgina; Sedalin; Sedol; Spasmotropin; Tensaldin; Tetrapulmo; Theopirina†; Tropinal; Uzara†; Veratropan Composto; ***Chile:*** Bramedil Compuesto; Buscapina Compositum; Cefalmin; Cinabel; Dioran†; Dolcopin; Dolnix; Dolo-Neurobionta†; Dolonase; Fredol; Migragesic; Migranol; Migratam; Neo Butartrol; Nospasmin Compuesto; Piretanyl; Scopanil; Silartrin†; Silrelax†; Sistalgina†; Ultrimin; Viadil Compuesto; Viplan Compuesto; Viproxil Compuesto; ***Cz.:*** Algifen; Algifen Neo; Analgin; Quarelin†; ***Fin.:*** Litalgin; ***Fr.:*** Avafortan†; Cefaline-Pyrazole†; Salgydal a la noramidopyrine†; Visceralgine Forte†; ***Hung.:*** Algopyrin Complex; Quarelin; Ridol†; ***Indon.:*** Analsik; Arsinal; Biomega; Cetalgin; Cetalgin-T; Corsanural; Dactron; Danalgin; Deparon; Dolo Scanneuron; Dolo-Licobion; Foraneural; Goralgin; Hedix; Ikaneuron Plus; Neuralgin RX; Neuro Panstop; Neurobat A; Neurodial; Neurogen; Neurosanbe Plus; Neurotropic Plus; Neuroval; Opineuron; Penagon; Pritagesic; Procolic; Proneuron; Spaslic; Spasmal; Spasminal; Stileran; Supranal; Tropineuron; Unthecol; ***Ital.:*** Soma Complex†; ***Mex.:*** Algosfar; Anadil; Ayoral†; Benfol; Biomesina Compuesta; Bipasmin Compuesto; Bipasmin Compuesto N; Buscapina Compositum; Busconet; Busepan; Busprina; Colepren; Dolnefort; Dolo-Tiaminal; Espasmogress; Hiosinotil Compuesto†; Hiosultrina-F; Korifen; Neo-Brontyl; Neo-Pasmonal; Ortran†; Pasmodil; Pirobutil; Respicil; Retodol Compositum; Selpiran; Serralpina Compuesta; Singril; ***Pol.:*** Gardan P; Scopolan Compositum; Spasmalgon; Tolargin; ***Rus.:*** Analgin-Chinin (Анальгин-Хинин); Antigrippin-ANVI (Антигриппин-АНВИ); Baralgetas (Баралгетас)†; Benalgin (Бенальгин);