

Disturbed behaviour. Buspirone has been tried in various disorders for the control of symptoms such as agitation, aggression, and disruptive behaviour (see Disturbed Behaviour, p.954) but evidence of efficacy is limited. Nonetheless, in the management of dementia, some¹ consider that it might be worth trying in nonpsychotic patients with disturbed behaviour, especially those with mild symptoms or those intolerant or unresponsive to antipsychotics.

1. Rabins PV, et al. APA Work Group on Alzheimer's Disease and other Dementias. Steering Committee on Practice Guidelines. American Psychiatric Association practice guideline for the treatment of patients with Alzheimer's disease and other dementias. Second edition. *Am J Psychiatry* 2007; **164** (12 suppl): 5-56. Also available at: <http://www.psychiatryonline.com/pracGuide/loadGuidelinePdf.aspx?file=AlzPG101007> (accessed 23/07/08)

Extrapyramidal disorders. Although there have been reports^{1,2} that buspirone may improve symptoms of drug-induced dyskinesia (p.971), drugs with dopaminergic actions have mostly exacerbated symptoms and there are a few reports of extrapyramidal disorders with buspirone (see under Adverse Effects, above).

1. Moss LE, et al. Buspirone in the treatment of tardive dyskinesia. *J Clin Psychopharmacol* 1993; **13**: 204-9.
2. Bonifati V, et al. Buspirone in levodopa-induced dyskinesias. *Clin Neuropharmacol* 1994; **17**: 73-82.

Substance dependence. **ALCOHOL.** Despite an early study¹ suggesting that buspirone could reduce alcohol craving in alcohol dependent patients, later studies²⁻⁴ have overall failed to confirm that buspirone improves abstinence or reduces alcohol consumption. Although some studies^{4,5} have found that buspirone may improve certain psychopathological symptoms in these patients, others⁶ have found no such benefit; a meta-analysis⁶ of 5 studies favoured the former interpretation.

The management of alcohol withdrawal and abstinence is discussed on p.1626.

1. Bruno F. Buspirone in the treatment of alcoholic patients. *Psychopathology* 1989; **22** (suppl 1): 49-59.
2. Malcolm R, et al. A placebo-controlled trial of buspirone in anxious inpatient alcoholics. *Alcohol Clin Exp Res* 1992; **16**: 1007-13.
3. George DT, et al. Buspirone does not promote long term abstinence in alcoholics. *Clin Pharmacol Ther* 1995; **57**: 161.
4. Malec E, et al. Buspirone in the treatment of alcohol dependence: a placebo-controlled trial. *Alcohol Clin Exp Res* 1996; **20**: 307-12.
5. Kranzler HR, et al. Buspirone treatment of anxious alcoholics: a placebo-controlled trial. *Arch Gen Psychiatry* 1994; **51**: 720-31.
6. Malec TS, et al. Efficacy of buspirone in alcohol dependence: a review. *Alcohol Clin Exp Res* 1996; **20**: 853-8.

NICOTINE. Buspirone has produced conflicting results¹⁻⁵ in the management of smoking cessation (p.2354). Although some studies suggest that in the short-term buspirone can increase the numbers of patients who are able to cease smoking, it does not necessarily decrease withdrawal symptoms.

1. West R, et al. Effect of buspirone on cigarette withdrawal symptoms and short-term abstinence rates in a smokers clinic. *Psychopharmacology (Berl)* 1991; **104**: 91-6.
2. Hilleman DE, et al. Effect of buspirone on withdrawal symptoms associated with smoking cessation. *Arch Intern Med* 1992; **152**: 350-2.
3. Hilleman DE, et al. Comparison of fixed-dose transdermal nicotine, tapered-dose transdermal nicotine, and buspirone in smoking cessation. *J Clin Pharmacol* 1994; **34**: 222-4.
4. Schneider NG, et al. Efficacy of buspirone in smoking cessation: a placebo-controlled trial. *Clin Pharmacol Ther* 1996; **60**: 568-75.
5. Farid P, Abate MA. Buspirone use for smoking cessation. *Ann Pharmacother* 1998; **32**: 1362-4.

OPIOIDS. Buspirone has been investigated in the management of opioid withdrawal (p.101) in dependent patients.^{1,2}

1. Rose JS, et al. Effects of buspirone in withdrawal from opiates. *Am J Addict* 2003; **12**: 253-9.
2. Buydens-Branchey L, et al. Efficacy of buspirone in the treatment of opioid withdrawal. *J Clin Psychopharmacol* 2005; **25**: 230-6.

Preparations

USP 31: Buspirone Hydrochloride Tablets.

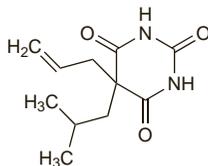
Proprietary Preparations (details are given in Part 3)

Arg.: Ansil†; **Austral.:** Buspar; **Austria:** Buspar; **Belg.:** Buspar; **Braz.:** Anisien†; Ansitec; Buspanil†; Buspar; **Canad.:** Buspar; Buspirex†; **Chile:** Paxon; **Cz.:** Anxiron†; Buspar†; **Denm.:** Buspar; Stesiron†; **Fin.:** Buspar; **Stesiron†; Fr.:** Buspar; **Ger.:** Anxut; Bepar; Busp; **Gr.:** Anchoalm; Antipsichos; Bergamol; Bepar; Boronex; Epsilat; Hiremon; Hobatstress; Komasin; Lanamont; Lebilon; Ledion; Loxapin; Nadrifor; Nervostal; Nevrorestol; Norbal; Pendium; Stressigal; Svitlark; Tendanj; Tensipes; Trafrunil†; Umolit; **Hong Kong:** Buspar; Kalmiren; **Hung.:** Anxiron; Spitolmin; **India:** Buscalm; **Indon.:** Tran-Q; Xiety; **Irl.:** Buspar; **Israel:** Buspirol†; Sorbon; **Ital.:** Anxoren†; Buspar; Buspiment†; **Mex.:** Buspar; **Norw.:** Buspar; **Stesiron†; NZ:** Biron; Buspar; **Pol.:** Mabuson; Spamilan; **Port.:** Anstien; Busansil; Buscalma; Buspar; Buspium; Estabilix†; Itagil; Psibeter; **S.Afr.:** Buspar; Pasnin; **Spain:** Buspar; Effiplen†; **Swed.:** Buspar; **Switz.:** Buspar; **Thai.:** Anxiolan; **Turk.:** Buspon; **UK:** Buspar; **USA:** Buspar; **Venez.:** Dalpas.

Butalbital (USAN, rINN)

Alisobumalum; Allylbarbital; Allylbarbituric Acid; Butalbitaali; Butalbitalum; Itobarbital; Tetrallobarbital. 5-Allyl-5-isobutylbarbituric acid.

Буталбитал
C₁₁H₁₆N₂O₃ = 224.3.
CAS — 77-26-9.



NOTE. The name Butalbital has also been applied to talbutal, the S-butyl analogue, which was formerly used as a hypnotic and sedative.

Compounded preparations of butalbital may be represented by the following names:

- Co-bucafAPAP (PEN)—butalbital, paracetamol, and caffeine

Pharmacopoeias. In US.

USP 31 (Butalbital). A white odourless crystalline powder. Slightly soluble in cold water; soluble in boiling water; freely soluble in alcohol, in chloroform, and in ether; soluble in solutions of fixed alkalis and alkali carbonates. A saturated solution is acid to litmus.

Profile

Butalbital is a barbiturate with general properties similar to those of amobarbital (p.961). It has been used mainly in combination preparations with analgesics in the treatment of occasional tension-type headaches, but other treatments are generally preferred.

Preparations

USP 31: Butalbital and Aspirin Tablets; Butalbital, Acetaminophen, and Caffeine Capsules; Butalbital, Acetaminophen, and Caffeine Tablets; Butalbital, Aspirin, and Caffeine Tablets; Butalbital, Aspirin, Caffeine, and Codeine Phosphate Capsules.

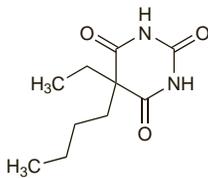
Proprietary Preparations (details are given in Part 3)

Multi-ingredient: **Canad.:** Fiorinal; Fiorinal C; ratio-Tecnal; **Denm.:** Trianal; **Chile:** Cafegot-PB†; **Denm.:** Gynergen Comp; **Ital.:** Optalidon; **S.Afr.:** Cafegot-PB†; **Spain:** Cafegot-PB†; **Switz.:** Cafegot-PB; **USA:** Amaphen with Codeine; Americet; Anolor; Ascomp with Codeine; Bupap; Butex; Dolgic; Dolgic LQ; Dolgic Plus; Endolor; Esigic; Esigic-Plus; Fioricet; Fioricet with Codeine; Fiorinal; Fiorinal with Codeine; Margesic; Marten-Tab; Medigesic; Pacaps; Phrenilin; Phrenilin w Caffeine and Codeine; Promacet; Prominot; Pyridium Plus; Repan; Repan CF†; Sedapap; Tencet; Tencon; Trellium Plus; Triad.

Butobarbital (BAN)

Butethal; Butobarbitaali; Butobarbitalum; Butobarbitone. 5-Butyl-5-ethylbarbituric acid.

C₁₀H₁₆N₂O₃ = 212.2.
CAS — 77-28-1.
ATC — N05CA03.
ATC Vet — QN05CA03.



NOTE. Butobarbital should be distinguished from Butabarbital, which is Secbutabarbital (p.1027).

Dependence and Withdrawal

As for Amobarbital, p.962.

Adverse Effects, Treatment, and Precautions

As for Amobarbital, p.962.

Interactions

As for Amobarbital, p.962.

Antibacterials. The metabolism of butobarbital may be altered by metronidazole.¹

1. Al Sharifi MA, et al. The effect of anti-moebic drug therapy on the metabolism of butobarbital. *J Pharm Pharmacol* 1982; **34**: 126-7.

Pharmacokinetics

Butobarbital is metabolised in the liver mainly by hydroxylation; small amounts are excreted in the urine as unchanged drug. It has been reported to have a half-life of about 40 to 55 hours and to be about 26% bound to plasma proteins.

Uses and Administration

Butobarbital is a barbiturate with general properties similar to those of amobarbital (p.962). Its use can no longer be recom-

mended because of the risk of its adverse effects and of dependence, although continued use may occasionally be considered necessary for severe intractable insomnia (p.957) in patients already taking it. It is given in usual oral doses of 100 to 200 mg at night.

Preparations

Proprietary Preparations (details are given in Part 3)

UK: Soneryl.

Multi-ingredient: **Cz.:** Diny†; **Fr.:** Hypnasmine†.

Calcium Bromolactobionate

Bromolactobionato de calcio; Calcium Galactogluconate Bromide. Calcium bromide lactobionate hexahydrate.

Ca(C₁₂H₂₁O₁₁)₂.CaBr₂.6H₂O = 1062.6.
CAS — 33659-28-8 (anhydrous calcium bromolactobionate).

Profile

Calcium bromolactobionate has sedative properties and has been given orally in the treatment of insomnia and anxiety disorders. The use of bromides is generally deprecated.

Overdose. Bromide intoxication has been reported¹ in a patient after overdose with calcium bromolactobionate tablets.

1. Danel VC, et al. Bromide intoxication and pseudohyperchloremia. *Ann Pharmacother* 2001; **35**: 386-7.

Preparations

Proprietary Preparations (details are given in Part 3)

Chile: Bromocalcio; Nervolta; Sedofantil; **Cz.:** Calabron†; **Ital.:** Calcibronat; **Mex.:** Calcibronat†; **Mon.:** Calcibronat; **Venez.:** Sedabron†.

Captodiamine Hydrochloride (BANM, pINN)

Captodiamine, Chlorhydrate de; Captodiami Hydrochloridum; Captodiamine Hydrochloride; Hidrocloruro de captodiamo. 2-(4-Butylthiobenzhydrylthio)ethyl-dimethylamine hydrochloride.

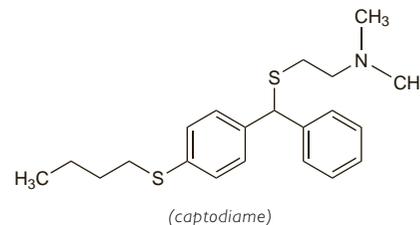
Каптодиам Гидрохлорид

C₂₁H₂₉N₂.HCl = 396.1.

CAS — 486-17-9 (captodiamine); 904-04-1 (captodiamine hydrochloride).

ATC — N05BB02.

ATC Vet — QN05BB02.



Profile

Captodiamine hydrochloride has been given in oral doses of 50 mg three times daily for the treatment of anxiety disorders (p.952).

Preparations

Proprietary Preparations (details are given in Part 3)

Fr.: Covatine.

Carbromal (BAN, rINN)

Bromodiethylacetylurea; Carbromalum; Karbromaaali; Carbromal. N-(2-Bromo-2-ethylbutyl)urea.

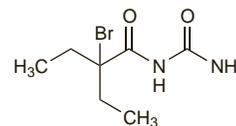
Карбромал

C₇H₁₃BrN₂O₂ = 237.1.

CAS — 77-65-6.

ATC — N05CM04.

ATC Vet — QN05CM04.



Profile

Carbromal is a bromide with general properties similar to those of the barbiturates (see Amobarbital, p.961). It was formerly used for its hypnotic and sedative properties. Chronic use of carbromal could result in bromide accumulation and symptoms resembling bromism (see Bromides, p.2269). The use of bromides is generally deprecated.

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