

Oxatomide (BAN, USAN, rINN)

Oksatomidi; Oxatomid; Oxatomida; Oxatomidum; R-35443. 1-[3-(4-Benzhydrylpiperazin-1-yl)propyl]benzimidazolin-2-one.

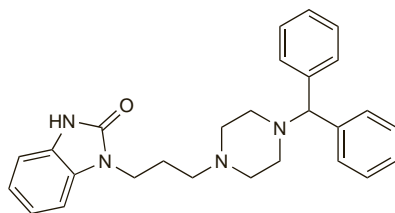
Оксатомида

$C_{27}H_{30}N_4O = 426.6$.

CAS — 60607-34-3.

ATC — R06AE06.

ATC Vet — QR06AE06.

**Profile**

Oxatomide, a piperazine derivative, is a sedating antihistamine (p.561) that has also been reported to have mast-cell stabilising properties. It is used for the symptomatic relief of allergic conditions including urticaria (p.565), rhinitis (p.565), and conjunctivitis (p.564). Oxatomide is given as the anhydrous substance or as the monohydrate; doses are expressed as the anhydrous substance. Oxatomide monohydrate 1.04 mg is equivalent to about 1 mg of anhydrous oxatomide. The usual oral dose is 30 mg twice daily. The hydrate has also been applied topically but, as with other antihistamines, there is a risk of sensitisation.

Effects on the nervous system. Acute dystonic reactions and long-lasting impaired consciousness were associated with oxatomide therapy in 6 children.¹ Impaired consciousness varied from lethargy and somnolence to a clinical picture resembling encephalitis and persisted for 2 days or more in 3 patients. Plasma-oxatomide concentrations were measured in 3 patients and found to be high, although 2 of these had been given the recommended dose.

1. Casteels-Van Daele M, *et al.* Acute dystonic reactions and long-lasting impaired consciousness associated with oxatomide in children. *Lancet* 1986; i: 1204-5.

Preparations

Proprietary Preparations (details are given in Part 3)

Arg.: Cenacert; Fensedy; **Tinset; Austria:** Tinset; **Belg.:** Tinset; **Chile:** Tinset; **Fr.:** Tinset; **Gr.:** Tinset; **Hong Kong:** Tinset; **Indon.:** Oxtin; **Tinset; Ital.:** Tinset; **Jpn.:** Celtect; **Mex.:** Tinset; **Neth.:** Tinset; **Port.:** Tinset; **S.Afr.:** Tinset; **Spain:** Cobiona; Oxatoken; **Thai.:** Tinset.

Multi-ingredient: Arg.: Causalon Bronchial; Causalon Grip; Letondal.

Oxomemazine (rINN)

Oxomemazina; Oxomémazine; Oxomemazinum; RP-6847; Trimprazine SS-Dioxide. 10-(3-Dimethylamino-2-methylpropyl)phenothiazine 5,5-dioxide.

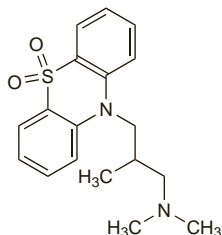
Оксомемазин

$C_{18}H_{22}N_2O_2S = 330.4$.

CAS — 3689-50-7.

ATC — R06AD08.

ATC Vet — QR06AD08.

**Oxomemazine Hydrochloride** (rINN)

Hidrocloruro de oxomemazina; Oxomémazine, Chlorhydrate d'; Oxomemazini Hydrochloridum.

Оксомемазина Гидрохлорид

$C_{18}H_{22}N_2O_2S \cdot HCl = 366.9$.

CAS — 4784-40-1.

ATC — R06AD08.

ATC Vet — QR06AD08.

Pharmacopoeias. In *Fr.*

Profile

Oxomemazine, a phenothiazine derivative, is a sedating antihistamine (p.561) used for the symptomatic relief of hypersensitivity reactions and in pruritic skin disorders (p.565). It is also an

ingredient of compound preparations for the symptomatic treatment of coughs and the common cold (p.564).

Oxomemazine has been given orally in doses ranging from about 5 to 13 mg daily in divided doses. It has also been given by the rectal route. Oxomemazine hydrochloride has been used similarly by mouth.

Preparations

Proprietary Preparations (details are given in Part 3)

Fr.: Toplexil; **Neth.:** Toplexil.

Multi-ingredient: Belg.: Toplexil; **Braz.:** Expec; Iodesin; Iodeto de Potassium Composto; KI-Expectorante; Tirasoset; Toplexil; Tussil; **Indon.:** Comtusi; Toplexil; **Israel:** Oxacatin; Toplexil; **Switz.:** Toplexil.

Phenindamine Tartrate (BAN, USAN, rINN)

Phenindamine Acid Tartrate; Phénindamine, Tartrate de; Phenindamini Tartras; Phenindaminium Tartrate; Tartrato de fenindamina. 1,2,3,4-Tetrahydro-2-methyl-9-phenyl-2-azafluorene hydrogen tartrate; 2,3,4,9-Tetrahydro-2-methyl-9-phenyl-1H-indeno[2,1-c]pyridine hydrogen tartrate.

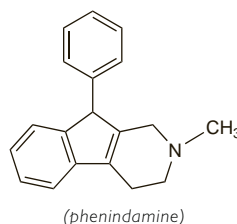
Фениндамина Тартрат

$C_{19}H_{19}N \cdot C_4H_6O_6 = 411.4$.

CAS — 82-88-2 (phenindamine); 569-59-5 (phenindamine tartrate).

ATC — R06AX04.

ATC Vet — QR06AX04.

**Pharmacopoeias.** In *Br.*

BP 2008 (Phenindamine Tartrate). A white or almost white, odourless or almost odourless, voluminous powder. Sparingly soluble in water; slightly soluble in alcohol; practically insoluble in chloroform and in ether. A 1% solution in water has a pH of 3.4 to 3.9. Protect from light.

Adverse Effects and Precautions

As for the sedating antihistamines in general, p.561. Phenindamine tartrate may have a stimulant effect in certain individuals; to avoid the possibility of insomnia patients may be advised to take the last dose of the day several hours before retiring.

Interactions

As for the sedating antihistamines in general, p.563.

Uses and Administration

Phenindamine, a piperidine derivative, is a sedating antihistamine; however it may be mildly stimulating in certain individuals. It is used as the tartrate for the symptomatic relief of allergic conditions including urticaria (p.565) and rhinitis (p.565), and as an ingredient of compound preparations for coughs and the common cold (p.564).

Phenindamine tartrate is given in oral doses of 25 mg every 4 to 6 hours, up to a maximum of 150 mg daily. Children over 6 years of age have been given half these doses.

Preparations

Proprietary Preparations (details are given in Part 3)

USA: Nolahist.

Multi-ingredient: USA: P-V-Tussin.

Pheniramine (BAN, rINN)

Feniramiini; Feniramin; Feniramina; Phéniramine; Pheniraminum; Prophepyridamine. *NN*-Dimethyl-3-phenyl-3-(2-pyridyl)propylamine.

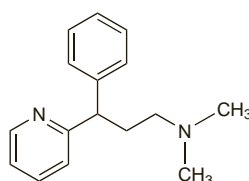
Фенирамин

$C_{16}H_{20}N_2 = 240.3$.

CAS — 86-21-5.

ATC — R06AB05.

ATC Vet — QR06AB05.

**Pheniramine Aminosalicilate** (BAN, rINN)

Aminosalicilato de feniramina; Pheniramine *p*-Aminosalicilate; Pheniramine 4-Aminosalicilate; Phéniramine, Aminosalicilate de; Pheniramine Para-aminosalicilate; Pheniraminium Aminosalicilas. Pheniramine 4-amino-2-hydroxybenzoate.

Фенирамина Аминосалилат

$C_{16}H_{20}N_2 \cdot C_7H_7NO_3 = 393.5$.

CAS — 3269-83-8.

ATC — R06AB05.

ATC Vet — QR06AB05.

Pheniramine Maleate (BAN, USAN, rINN)

Feniramiinimaleaatti; Feniramin Hidrojen Maleat; Feniramin Maleat; Feniramin maleinát; Feniraminmaleat; Feniramin-maleát; Feniraminomaleatas; Maleato de feniramina; Phéniramine, maléate de; Pheniraminium males; Pheniraminium Maleate; Prophepyridamine Maleate. Pheniramine hydrogen maleate.

Фенирамина Малеат

$C_{16}H_{20}N_2 \cdot C_4H_4O_4 = 356.4$.

CAS — 132-20-7.

ATC — R06AB05.

ATC Vet — QR06AB05.

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

Ph. Eur. 6.2 (Pheniramine Maleate). A white or almost white, crystalline powder. Very soluble in water; freely soluble in alcohol, in dichloromethane, and in methyl alcohol. M.p. 106° to 109°. A 1% solution in water has a pH of 4.5 to 5.5. Protect from light.

USP 31 (Pheniramine Maleate). A white crystalline powder having a faint amine-like odour. Soluble in water and in alcohol. pH of a 1% solution in water is between 4.5 and 5.5.

Adverse Effects and Precautions

As for the sedating antihistamines in general, p.561.

Abuse. References to the abuse of oral pheniramine.

1. Jones IH, *et al.* Pheniramine as an hallucinogen. *Med J Aust* 1973; 1: 382-6.
2. Csilag ER, Landauer AA. Alleged hallucinogenic effect of a toxic overdose of an antihistamine preparation. *Med J Aust* 1973; 1: 653-4.
3. Buckley NA, *et al.* Pheniramine—a much abused drug. *Med J Aust* 1994; 160: 188-92.

Pregnancy. For discussion of the use of antihistamines, including pheniramine, in pregnancy, see p.563.

Interactions

As for the sedating antihistamines in general, p.563.

Pharmacokinetics

◊ The pharmacokinetics of pheniramine and its metabolites, *N*-desmethylpheniramine and *N*-didesmethylpheniramine, were investigated in 6 healthy subjects.¹ After oral doses of pheniramine aminosalicilate, peak-plasma pheniramine concentrations were reached in 1 to 2.5 hours. The terminal half-life ranged between 8 and 17 hours after intravenous doses (pheniramine maleate) and 16 and 19 hours after oral doses. The total recovery of pheniramine as unchanged drug and metabolites from the urine was 68 to 94% of the intravenous dose and 70 to 83% of the oral dose.

1. Witte PU, *et al.* Pharmacokinetics of pheniramine (Avil) and metabolites in healthy subjects after oral and intravenous administration. *Int J Clin Pharmacol Ther Toxicol* 1985; 23: 59-62.

Uses and Administration

Pheniramine, an alkylamine derivative, is a sedating antihistamine with antimuscarinic and moderate sedative properties.

It is used as the maleate for the symptomatic relief of allergic conditions including urticaria and angioedema (p.565), rhinitis (p.565), and conjunctivitis (p.564), and in pruritic skin disorders (p.565). It has also been used for its antiemetic properties in the prevention and control of motion sickness (p.564). Pheniramine maleate is used as an ingredient of compound preparations for the symptomatic treatment of coughs and the common cold (p.564). It is also used in combination with a decongestant in eye and nasal preparations.

Pheniramine maleate is given as a syrup in usual oral doses of 15 to 30 mg two or three times daily. It may also be given as a tablet in doses up to about 45 mg three times daily. In some countries pheniramine maleate has been given parenterally.

The aminosalicilate, the hydrochloride, and the tannate have also been used.

Preparations

USP 31: Naphazoline Hydrochloride and Pheniramine Maleate Ophthalmic Solution.

Proprietary Preparations (details are given in Part 3)

Austral.: Avil; Fenamine; **Austria:** Avil; **India:** Avil; **Indon.:** Avil; **Ital.:** In-histon; **Mex.:** Histatext; **NZ:** Avil; **Turk.:** Avil; **UAE:** Histol.

Multi-ingredient: Arg.: Mira Klonal; Mirus; Referax Colirio; **Austral.:** Avil Decongestant; Naphcon-A; Visine Allergy with Antihistamine; **Austria:** Neo Citran; **Belg.:** Naphcon-A; **Braz.:** Claril; **Canad.:** Ak Vernacon; Calmylin Ace; Citron Chaud DM; Dioptron A; Diorouge; Dristan; Hot Lemon; Hot Lemon Cough and Colds Relief DM; Hot Lemon Relief; Hot Lemon Relief for Cough and Cold; Naphcon-A; Neo Citran A; Neo Citran Calorie Reduced; Neo Citran Colds & Flu; Neo Citran DM; Neo Citran Extra Strength; Neo Citran; Opcon-A; Pulmorphan; Pulmorphan Pediatric; Robitussin AC; Robitussin with Codeine; Visine Advance Allergy; **Chile:** Clarimir F; Dessolets; Miral; Mirus; Naphcon-A; **Cz.:** Fervev; **Fr.:** Fervev; **Ger.:** Konjunktival Thilo; Rhinosovil; **Hong Kong:** Konjunktival;

The symbol † denotes a preparation no longer actively marketed

Naphcon-A; Opcon-A; **Hung:** Fervex; Neo Citran; **India:** Avil Expecto-rant; Cosavit; Dristan Nasal Drops; **Indon:** Flamerji; Isotic Azora; Naph-con-A; **Israel:** Tusosedan; **Ital:** Nafcon A†; Senodin-AN; Stillerg; Te-tramit; Triaminic; Triaminicflu; **Malaysia:** Naphcon-A; **Mex:** Eyrasil; Istasol; Mirus; Opcon-A; Solutina; **NZ:** Naphcon-A; Visine Allergy; **Philipp:** Deco-con A; Naphcon-A; Optaphen; **Pol:** Fervex; Theraflu ExtraGRIP; **Rus:** Rinzasip (Ринзасип); Theraflu Flu and Cold (ТераФлю от Гриппа и Простуды Экстра); **S.Afr:** Calasthetic; Cof-Up; Degoran; Dristan Decon-gestant Nasal Mist; **Singapore:** Naphcon-A; **Switz:** Neo Citran Grippelreifodissem; **Thai:** Naphcon-A; **Turk:** Antibeksin; **UAE:** Histol Exp; **USA:** Dristan Nasal Spray; Nafazair A†; Naphazoline Plus; Naphcon-A; Naphoptic-A; Ocuhist; Opcon-A; Poly-Histinet†; Scot-Tussin Original 5-Action; Theraflu Cold & Cough; Tussirex; Visine-A; **Venez:** Robitessin AC†; Soluclear; Tempragrip.

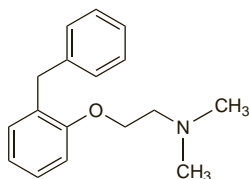
Phenyltoloxamine Citrate (BANM, rINNM)

C-5581H (phenyltoloxamine); Citrato de feniltoloxamina; Phé-nyltoloxamine, Citrate de; Phenyltoloxamini Citras; Phenyltoloxamine Citrate; PRN (phenyltoloxamine). 2-(2-Benzylphe-noxy)-NN-dimethylethylamine dihydrogen citrate.

ФЕНИЛТОЛОКСАМИНА Цитрат

$C_{17}H_{21}NO_6 \cdot C_6H_8O_7 = 447.5$.

CAS — 92-12-6 (phenyltoloxamine); 1176-08-5 (phenyltoloxamine citrate).



(phenyltoloxamine)

Pharmacopoeias. In US.

USP 31 (Phenyltoloxamine Citrate). A white crystalline powder. Very soluble in boiling water; slightly soluble in cold water and in alcohol; practically insoluble in cold acetone, in solvent ether, and in toluene. pH of a 1% solution in water is between 3.2 and 4.2.

Profile

Phenyltoloxamine citrate, a monoethanolamine derivative, is a sedating antihistamine (p.561). It is usually given orally in combination preparations with a decongestant or analgesic. Phenyltoloxamine citrate has been used in nasal preparations. Phenyltoloxamine polistirex has also been given orally.

Preparations

Proprietary Preparations (details are given in Part 3)

Multi-ingredient: **Austria:** Codipront; **Braz:** Afebrin†; Setux; Setux Expecto-rante; **Canad:** Omni-Tuss†; Tussionex; **Chile:** Codipront†; Matinor; Riolfrim†; Sinutab; Tossin†; **Cz:** Codipront†; **Fr:** Biocidan; Netux†; **Ger:** Codipront†; **Hong Kong:** Codipront; **Indon:** Codipront; Codipront cum Expecto-rante; **Israel:** Codivis; **Ital:** Codipront†; **Philipp:** Sinutab; **Port:** Codipront; **S.Afr:** Adco-Sinal Co; Dequa-Flu; Pholitec Linctus; Sinustop; Sinustop with Codeine; Sinutab; Sinutab with Codeine; Suncodin; **Singapore:** Codipront†; **Spain:** Codipront†; **Switz:** Codipront; Codipront cum Expecto-rans†; **Thai:** Codipront†; **Turk:** Benzoleks; **USA:** Aceta-Gesic; Anabar; Be-Flex Plus; BP Poly-650; By-Ache; Calgesic Forte; Chlorex-A; Combiflex; Combiflex ES; Comhist LA; Durabac Forte; Duraxin; Flextra; Hyflex; Lagesic; Levacet; Lobac; Major-gesic; Mobigesic; Momentum; Nalex-A; Pain-gesic; Percogesic; Phenylgesic; Poly-Histinet†; Relagesic; Staflex; Tet-ra-Mag; **Venez:** Codipront; Efoxamin†.

Pimethixene (rINN)

BP-400; Piméthixène; Pimethixenum; Pimetixene; Pimetixeno. 9-(1-Methyl-4-piperidylidene)thioxanthene.

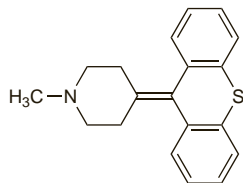
Пиметиксен

$C_{19}H_{19}NS = 293.4$.

CAS — 314-03-4.

ATC — R06AX23.

ATC Vet — QR06AX23.



Profile

Pimethixene is reported to be a sedating antihistamine (p.561) and an inhibitor of serotonin. It is given to children in usual oral doses of about 1.8 to 5.5 mg daily for coughs. It has been used as a sedative and for the treatment of respiratory disorders.

Preparations

Proprietary Preparations (details are given in Part 3)

Braz: Ansiotex; Muricalm; Sonin†; **Fr:** Calmixene.

Multi-ingredient: **Braz:** Santussal.

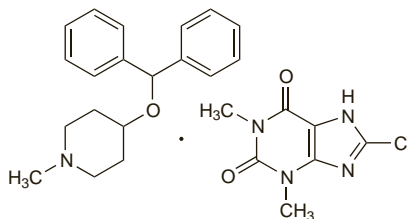
Piprinhydrinate (BAN, rINN)

Diphenylpyraline Teoclate; Diphenylpyraline Theoclate; Piprin-hidrinato; Piprinhydrinatum. The diphenylpyraline salt of 8-chlorotheophylline; 4-Benzhydryloxy-1-methylpiperidine salt of 8-chlorotheophylline.

Пипрингидринат

$C_{19}H_{23}NO_7 \cdot C_7H_7ClN_4O_2 = 496.0$.

CAS — 606-90-6.



Profile

Piprinhydrinate, a piperidine derivative, is an antihistamine (p.561) given orally as an ingredient of compound preparations for the symptomatic relief of coughs and the common cold.

Preparations

Proprietary Preparations (details are given in Part 3)

Hong Kong: Plokont†; **Thai:** Plokton.

Multi-ingredient: **Austria:** Waldeim Infludon; **Ger:** Kolton grippale N†.

Promethazine (BAN, rINN)

Prometatsiini; Prometazini; Prometazina; Prométhazine; Promet-hazinum. Dimethyl (1-methyl-2-phenothiazin-10-ylethyl)amine.

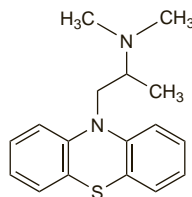
Прометазин

$C_{17}H_{20}N_2S = 284.4$.

CAS — 60-87-7.

ATC — D04AA10; R06AD02.

ATC Vet — QD04AA10; QR06AD02.



Promethazine Hydrochloride (BANM, rINNM)

Diprazinum; Hidrocloruro de prometazina; Proazamine Chlo-ride; Prometatsiinihidrokloridi; Prometazini Hidroklorür; Pro-metazini-hidroklorid; Prometazinihidroklorid; Prometazino hidro-chloridas; Prometazyni chlorowodorek; Prométhazine, chlorthy-drate de; Promethazin-hydrochlorid; Promethazini hydrochlori-dum; Promethazinium Chloride.

Прометазина Гидрохлорид

$C_{17}H_{20}N_2S \cdot HCl = 320.9$.

CAS — 58-33-3.

ATC — D04AA10; R06AD02.

ATC Vet — QD04AA10; QR06AD02.

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

Ph. Eur. 6.2 (Promethazine Hydrochloride). A white or faintly yellowish, crystalline powder. Very soluble in water; freely solu-ble in alcohol and in dichloromethane. A 10% solution in water has a pH of 4.0 to 5.0. Protect from light.

USP 31 (Promethazine Hydrochloride). A white to faint yellow, practically odourless, crystalline powder. Slowly oxidises and acquires a blue colour on prolonged exposure to air. Freely solu-ble in water, in hot dehydrated alcohol, and in chloroform; prac-tically insoluble in acetone, in ether, and in ethyl acetate. pH of a 5% solution in water is between 4.0 to 5.0. Store in airtight con-tainers. Protect from light.

Adsorption. The adsorption of promethazine hydrochloride onto various glass and plastic containers and infusion systems

has been studied.¹⁻⁴ Factors affecting the degree of adsorption in-cluded the particular material tested and the pH of the solution.

1. Kowaluk EA, *et al.* Interactions between drugs and polyvinyl chloride infusion bags. *Am J Hosp Pharm* 1981; **38**: 1308-14.
2. Kowaluk EA, *et al.* Interactions between drugs and intravenous delivery systems. *Am J Hosp Pharm* 1982; **39**: 460-7.
3. Rhodes RS, *et al.* Stability of meperidine hydrochloride, promethazine hydrochloride, and atropine sulfate in plastic syringes. *Am J Hosp Pharm* 1985; **42**: 112-5.
4. Martens HJ, *et al.* Sorption of various drugs in polyvinyl chlo-ride, glass, and polyethylene-lined infusion containers. *Am J Hosp Pharm* 1990; **47**: 369-73.

Incompatibility. Solutions of promethazine hydrochloride are incompatible with alkaline substances, which precipitate the in-soluble promethazine base. Compounds reported to be incom-patible with promethazine hydrochloride include aminophylline, barbiturates, benzylpenicillin salts, carbenicillin sodium, chlo-ramphenicol sodium succinate, chlorothiazide sodium, cefmeta-zole sodium, cefoperazone sodium, cefotetan disodium, dimen-hydrinate, doxorubicin hydrochloride (in a liposomal formulation), furosemide, heparin sodium, hydrocortisone sodi-um succinate, metocillin sodium, morphine sulfate, nalbuphine hydrochloride, and some contrast media and parenteral nutrient solutions.

Promethazine Teoclate (BAN, rINN)

Prométhazine, Téoclate de; Promethazine Theoclate; Prometh-azini Teoclas; Teoclate de prometazina. The promethazine salt of 8-chlorotheophylline.

Прометазина Теоклат

$C_{17}H_{20}N_2S \cdot C_7H_7ClN_4O_2 = 499.0$.

CAS — 17693-51-5.

ATC — D04AA10; R06AD02.

ATC Vet — QD04AA10; QR06AD02.

Pharmacopoeias. In *Br*.

BP 2008 (Promethazine Teoclate). A white or almost white, odourless or almost odourless powder. Very slightly soluble in water; sparingly soluble in alcohol; freely soluble in chloroform; practically insoluble in ether. Protect from light.

Adverse Effects

As for the sedating antihistamines in general, p.561.

Cardiovascular adverse effects are more commonly seen after injection, and bradycardia, tachycardia, tran-sient minor increases in blood pressure, and occasional hypotension have all been reported with promethazine hydrochloride. Jaundice and blood dyscrasias have been reported, and extrapyramidal effects may occur at high doses.

Venous thrombosis has been reported at the site of in-travenous injections, and arteriospasm and gangrene may follow inadvertent intra-arterial injection.

Overdosage. A toxic neurological syndrome, which included CNS depression, acute excitomotor manifestations, ataxia and visual hallucinations, plus peripheral antimuscarinic effects de-veloped in 2 children aged 44 months and 16 months after topical application of a 2% promethazine cream providing between 12.9 and 26 mg/kg.¹ The older child had also received hydroxyzine 10 mg orally 1 hour earlier.

1. Shawn DH, McGuigan MA. Poisoning from dermal absorption of promethazine. *Can Med Assoc J* 1984; **130**: 1460-1.

Sudden infant death syndrome. Although some early re-ports raised the possibility of an association between the use of phenothiazine antihistamines and the sudden infant death syn-drome (SIDS) this has not been confirmed. Following an initial report that 4 of 7 infants with SIDS had been given alimemazine before death and that a series of severe apnoeic crises had been observed in the twin of a SIDS victim given promethazine,¹ the same workers studied 52 SIDS victims, 36 near-miss infants (those who had experienced severe unexplained episodes of cy-anosis or pallor during sleep), and 175 control subjects to in-vestigate the role of nasopharyngitis and phenothiazines in this syn-drome.² They found that there was no difference in the incidence of nasopharyngitis between the 3 groups, but the proportion of infants given phenothiazines was higher in both the SIDS group (23%) and the near-miss group (22%) than in the control group (2%). In a subsequent study,³ they found that the incidence of central and obstructive sleep apnoea was increased in 4 healthy infants given promethazine for 3 days, although the duration of the attacks was unaltered and generally short, with a range of 3 to 10 seconds. A report on behalf of the European Commission,⁴ stated that no link between sudden deaths in infants and drug use had been confirmed by national drug monitoring centres. It was likely that the risk of apnoea was associated with all sedative drugs, especially in overdose.⁴ Previously, phenothiazine-in-duced hyperthermia had been proposed as a contributory factor in SIDS.⁵

For general precautions regarding the use of antihistamines in children, see p.562.

1. Kahn A, Blum D. Possible role of phenothiazines in sudden in-fant death. *Lancet* 1979; **ii**: 364-5.