Dexamethasone *(BAN, rINN)* ⊗

Deksametasoni; Deksametazon; Deksametazonas; Desamethasone; Dexametason; Dexametasona; Dexametasone; Dexametazon; Dexamethason; Dexaméthasone; Dexamethasonum; 9α-Fluoro-16α-methylprednisolone; Hexadecadrol. 9α-Fluoro-11β,17α,21-trihydroxy-16α-methylpregna-1,4-diene-3,20-dione.

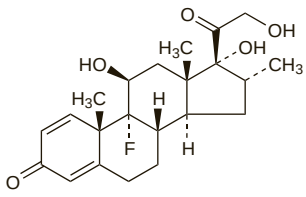
Дексаметазон

$C_{22}H_{29}FO_5$ = 392.5.

CAS — 50-02-2.

ATC — A01AC02; C05AA09; D07AB19; H02AB02; R01AD03; S01BA01; S02BA06; S03BA01.

ATC Vet — QA01AC02; QC05AA09; QD07AB19; QD07XB05; QD10AA03; QH02AB02; QR01AD03; QS01BA01; QS01CB01; QS02BA06; QS03BA01.



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

Ph. Eur. 6.2 (Dexamethasone). A white or almost white, crystalline powder. Practically insoluble in water; sparingly soluble in dehydrated alcohol; slightly soluble in dichloromethane. Protect from light.

USP 31 (Dexamethasone). A white to practically white, odourless, crystalline powder. Practically insoluble in water; sparingly soluble in alcohol, in acetone, in dioxan, and in methyl alcohol; slightly soluble in chloroform; very slightly soluble in ether.

Dexamethasone Acetate *(BANM, USAN, rINNM)* ⊗

Acetato de dexametasona; Deksametasoniasetaatti; Deksametazono acetatas; Dexametasonacetat; Dexametazon-acetát; Dexamethason-acetát; Dexaméthasone, acétate de; Dexamethasoni acetas. Dexamethasone 21-acetate.

Дексаметазона Ацетат

$C_{24}H_{31}FO_6$ = 434.5.

CAS — 1177-87-3 (anhydrous dexamethasone acetate); 55812-90-3 (dexamethasone acetate monohydrate).

ATC — A01AC02; C05AA09; D07AB19; H02AB02; R01AD03; S01BA01; S02BA06; S03BA01.

ATC Vet — QA01AC02; QC05AA09; QD07AB19; QH02AB02; QR01AD03; QS01BA01; QS02BA06; QS03BA01.

Pharmacopoeias. In *Chin.*, *Eur.* (see p.vii), and *Viet.*
Int. and *US* allow the anhydrous form or the monohydrate.

Ph. Eur. 6.2 (Dexamethasone Acetate). A white or almost white, crystalline powder. It shows polymorphism. Practically insoluble in water; freely soluble in alcohol and in acetone; slightly soluble in dichloromethane. Protect from light.

USP 31 (Dexamethasone Acetate). It contains one molecule of water of hydration or is anhydrous. A clear, white to off-white, odourless powder. Practically insoluble in water; freely soluble in acetone, in dioxan, and in methyl alcohol. Store at a temperature of 25°, excursions permitted between 15° and 30°.

Dexamethasone Isonicotinate *(BANM, rINNM)* ⊗

Deksametasoniisonikotinaatti; Deksametazonu izonikotynian; Dexametasonisonikotinat; Dexaméthasone, isonicotinate de; Dexamethasoni isonicotinas; Dexamethason-isonikotinát; Isonicotinato de dexametasona. Dexamethasone 21-isonicotinate.

Дексаметазона Изоникотинат

$C_{28}H_{32}FNO_6$ = 497.6.

CAS — 2265-64-7.

ATC — A01AC02; C05AA09; D07AB19; H02AB02; R01AD03; S01BA01; S02BA06; S03BA01.

ATC Vet — QA01AC02; QC05AA09; QD07AB19; QH02AB02; QR01AD03; QS01BA01; QS02BA06; QS03BA01.

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

Ph. Eur. 6.2 (Dexamethasone Isonicotinate). A white or almost white crystalline powder. Practically insoluble in water; slightly soluble in dehydrated alcohol and in acetone.

Dexamethasone Phosphate *(BANM, rINNM)* ⊗

Dexaméthasone, Phosphate de; Dexamethasoni Phosphas; Fosfato de dexametasona. Dexamethasone 21-(dihydrogen phosphate).

Дексаметазона Фосфат

$C_{22}H_{30}FO_8P$ = 472.4.

CAS — 312-93-6.

ATC — A01AC02; C05AA09; D07AB19; H02AB02; R01AD03; S01BA01; S02BA06; S03BA01.

ATC Vet — QA01AC02; QC05AA09; QD07AB19; QH02AB02; QR01AD03; QS01BA01; QS02BA06; QS03BA01.

Dexamethasone Sodium Metasulfobenzoate *(rINNM)* ⊗

Dexaméthasone Métasulfobenzoate Sodique; Dexamethasone Sodium Metasulphobenzoate *(BANM)*; Metasulfobenzoato sódico de dexametasona; Natrii Dexamethasoni Metasulfobenzoas. Dexamethasone 21-(sodium *m*-sulphobenzoate).

Натрий Метасульфобензоат Дексаметазон

$C_{29}H_{32}FNaO_9S$ = 598.6.

CAS — 3936-02-5.

ATC — A01AC02; C05AA09; D07AB19; H02AB02; R01AD03; S01BA01; S02BA06; S03BA01.

ATC Vet — QA01AC02; QC05AA09; QD07AB19; QH02AB02; QR01AD03; QS01BA01; QS02BA06; QS03BA01.

Dexamethasone Sodium Phosphate

(BANM, rINNM) ⊗

Deksametasoninatriumfosfaatti; Deksametazon Sodyum Fosfat; Deksametazono natrio fosfatas; Dexametasonnatriumfosfat; Dexametazon-nátrium-foszfát; Dexaméthasone, phosphate sodique de; Dexamethasone Phosphate Sodium; Dexamethason-fosfát sodná sůl; Dexamethasoni natrii phosphas; Fosfato sódico de dexametasona; Natrii Dexamethasoni Phosphas; Sodium Dexamethasone Phosphate. Dexamethasone 21-(disodium orthophosphate).

Натрия Дексаметазона Фосфат

$C_{22}H_{28}FNa_2O_8P$ = 516.4.

CAS — 2392-39-4.

ATC — A01AC02; C05AA09; D07AB19; H02AB02; R01AD03; S01BA01; S02BA06; S03BA01.

ATC Vet — QA01AC02; QC05AA09; QD07AB19; QH02AB02; QR01AD03; QS01BA01; QS02BA06; QS03BA01.

NOTE. DSP is a code approved by the BP 2008 for use on single unit doses of eye drops containing dexamethasone sodium phosphate where the individual container may be too small to bear all the appropriate labelling information.

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

Ph. Eur. 6.2 (Dexamethasone Sodium Phosphate). A white or almost white, very hygroscopic, powder. It exhibits polymorphism. Freely soluble in water; slightly soluble in alcohol; practically insoluble in dichloromethane. A 1% solution in water has a pH of 7.5 to 9.5. Store in airtight containers. Protect from light.

USP 31 (Dexamethasone Sodium Phosphate). A white or slightly yellow, crystalline powder. Is odourless or has a slight odour of alcohol, and is exceedingly hygroscopic. Soluble 1 in 2 of water; slightly soluble in alcohol; insoluble in chloroform and in ether; very slightly soluble in dioxan. pH of a 1% solution in water is between 7.5 and 10.5. Store in airtight containers.

Adverse Effects, Treatment, Withdrawal, and Precautions

As for corticosteroids in general (see p.1490).

Dexamethasone has little or no effect on sodium and water retention.

When applied topically, particularly to large areas, when the skin is broken, or under occlusive dressings, or when given intranasally, corticosteroids may be absorbed in sufficient amounts to cause systemic effects. Prolonged use of ophthalmic preparations containing corticosteroids has caused raised intra-ocular pressure and reduced visual function.

Effects on the neonate. The adverse effects of corticosteroids on the fetus are discussed under Pregnancy on p.1494.

Adverse effects noted in premature neonates with bronchopulmonary dysplasia (p.1500) receiving dexamethasone treatment to enable weaning from assisted ventilation have included hypertension[1-4] often accompanied by bradycardia,[1,2] gastroduodenal perforation,[4-6] ulceration and thinning of the gastric wall,[5] development of a catabolic state,[4,7] renal calcification,[8,9] and transient myocardial hypertrophy.[10-13] There is some evidence of a suppressive effect on motor activity and spontaneous movement.[14] It has been postulated that neonatal dexamethasone may both increase[15] and decrease[16] retinopathy of prematurity; its true effect is uncertain.[17]

There is also a concern that longer term development of the child may be adversely affected.[18,19] Although data are scanty, a meta-analysis[20] has concluded that postnatal use of corticosteroids to treat or prevent bronchopulmonary dysplasia is associated with dramatic increases in the incidence of cerebral palsy and neurodevelopmental impairment, and suggested that such use should be abandoned.

Pulsed dosage may reduce the adverse effects but may also reduce efficacy.[21]

1. Ohlsson A, Heyman E. Dexamethasone-induced bradycardia. *Lancet* 1988; **ii:** 1074.
2. Puntis JWL, *et al.* Dexamethasone-induced bradycardia. *Lancet* 1988; **ii:** 1372.
3. Marinelli KA, *et al.* Effects of dexamethasone on blood pressure in premature infants with bronchopulmonary dysplasia. *J Pediatr* 1997; **130:** 594–602.
4. Stark AR, *et al.* Adverse effects of early dexamethasone treatment in extremely-low-birth-weight infants. *N Engl J Med* 2001; **344:** 95–101.
5. Ng PC, *et al.* Gastroduodenal perforation in preterm babies treated with dexamethasone for bronchopulmonary dysplasia. *Arch Dis Child* 1991; **66:** 1164–6.
6. Smith H, Sinha S. Gastrointestinal complications associated with dexamethasone treatment. *Arch Dis Child* 1992; **67:** 667.
7. Macdonald PD, *et al.* A catabolic state in dexamethasone treatment of bronchopulmonary dysplasia. *Arch Dis Child* 1990; **65:** 560–1.
8. Kamitsuka MD, Peloquin D. Renal calcification after dexamethasone in infants with bronchopulmonary dysplasia. *Lancet* 1991; **337:** 626.
9. Narendra A, *et al.* Nephrocalcinosis in preterm babies. *Arch Dis Child Fetal Neonatal Ed* 2001; **85:** F207–F213.
10. Werner JC, *et al.* Hypertrophic cardiomyopathy associated with dexamethasone therapy for bronchopulmonary dysplasia. *J Pediatr* 1992; **120:** 286–91.
11. Bensky AS, *et al.* Cardiac effects of dexamethasone in very low birth weight infants. *Pediatrics* 1996; **97:** 818–21.
12. Skelton R, *et al.* Cardiac effects of short course dexamethasone in preterm infants. *Arch Dis Child* 1998; **78:** F133–F137.
13. Zecca E, *et al.* Cardiac adverse effects of early dexamethasone treatment in preterm infants: a randomized clinical trial. *J Clin Pharmacol* 2001; **41:** 1075–81.
14. Bos AF, *et al.* Qualitative assessment of general movements in high-risk preterm infants with chronic lung-disease requiring dexamethasone therapy. *J Pediatr* 1998; **132:** 300–6.
15. Batton DG, *et al.* Severe retinopathy of prematurity and steroid exposure. *Pediatrics* 1992; **90:** 534–6.
16. Sobel DB, Philip AGS. Prolonged dexamethasone therapy reduces the incidence of cryotherapy for retinopathy of prematurity in infants of less than 1 kilogram birth weight with bronchopulmonary dysplasia. *Pediatrics* 1992; **90:** 529–33.
17. Ehrenkranz RA. Steroids, chronic lung disease, and retinopathy of prematurity. *Pediatrics* 1992; **90:** 646–7.
18. Greenough A. Gains and losses from dexamethasone for neonatal chronic lung disease. *Lancet* 1998; **352:** 835–6.
19. Shinwell ES, *et al.* Early postnatal dexamethasone treatment and increased incidence of cerebral palsy. *Arch Dis Child Fetal Neonatal Ed* 2000; **83:** F177–F181.
20. Barrington KJ. The adverse neuro-developmental effects of postnatal steroids in the preterm infant: a systematic review of RCTs. *BMC Pediatr* 2001; **1:** 1. Available at: http://www.biomedcentral.com/1471-2431/1/1 (accessed 27/04/04)
21. Bloomfield FH, *et al.* Side effects of 2 different dexamethasone courses for preterm infants at risk of chronic lung disease: a randomized trial. *J Pediatr* 1998; **133:** 395–400.

Effects on the nervous system. Paraesthesia, usually localised to the perineum, has been associated with the intravenous use of dexamethasone sodium phosphate (see p.1492).

Interactions

The interactions of corticosteroids in general are described on p.1494. Various drugs may interfere with the dexamethasone suppression test.

Antiepileptics. As mentioned on p.499, dexamethasone may decrease or increase plasma concentrations of *phenytoin*. Like other enzyme-inducing drugs, phenytoin also has the potential to increase the metabolism of dexamethasone. There have been reports of false positive dexamethasone suppression tests (see Diagnosis and Testing, below) in patients taking *carbamazepine*.[1]

1. Ma RCW, *et al.* Carbamazepine and false positive dexamethasone suppression tests for Cushing's syndrome. *BMJ* 2005; **330:** 299–300.

Pharmacokinetics

For a brief outline of the pharmacokinetics of corticosteroids, see p.1495.

Dexamethasone is readily absorbed from the gastrointestinal tract. Its biological half-life in plasma is about 190 minutes. Binding of dexamethasone to plasma proteins is about 77%, which is less than for most other corticosteroids. Up to 65% of a dose is excreted in urine within 24 hours. Clearance in premature neonates is reported to be proportional to gestational age, with a reduced elimination rate in the most premature. It readily crosses the placenta with minimal inactivation.

Uses and Administration

Dexamethasone is a corticosteroid with mainly glucocorticoid activity (p.1490); 750 micrograms of dexa-

methasone is equivalent in anti-inflammatory activity to about 5 mg of prednisolone.

It has been used, either in the form of the free alcohol or in one of the esterified forms, in the treatment of conditions for which corticosteroid therapy is indicated (p.1495), except adrenocortical insufficiency for which hydrocortisone with supplementary fludrocortisone is preferred. Its lack of mineralocorticoid properties makes dexamethasone particularly suitable for treating conditions where water retention would be a disadvantage.

The dose may be expressed in terms of the base, and the following are each equivalent to about 1 mg of dexamethasone:

- dexamethasone acetate 1.1 mg
- dexamethasone isonicotinate 1.3 mg
- dexamethasone phosphate 1.2 mg
- dexamethasone sodium metasulfobenzoate 1.5 mg
- dexamethasone sodium phosphate 1.3 mg

Dexamethasone sodium phosphate 1.1 mg is equivalent to about 1 mg of dexamethasone phosphate.

For **oral** administration dexamethasone is given in usual doses of 0.5 to 10 mg daily. Dexamethasone is also used orally in the dexamethasone suppression tests for the diagnosis of Cushing's syndrome (for further details see under Diagnosis and Testing, below).

For **parenteral administration** in **intensive therapy** or in **emergencies**, the sodium phosphate ester may be given intravenously by injection or infusion or intramuscularly by injection; doses are sometimes expressed in terms of the free alcohol, the phosphate, or the sodium phosphate and confusion has sometimes arisen in the literature because of these variations. Initial doses used, expressed in terms of dexamethasone phosphate, range from about 0.5 to 24 mg daily (about 0.4 to 20 mg of dexamethasone). Intravenous doses equivalent to 2 to 6 mg/kg of dexamethasone phosphate given slowly over a minimum period of several minutes have been suggested for the treatment of severe shock. These high doses may be repeated within 2 to 6 hours and this treatment should be continued only until the patient's condition is stable and usually for no longer than 48 to 72 hours. Alternatively, the initial intravenous injection may be followed by a continuous intravenous infusion of 3 mg/kg per 24 hours.

Dexamethasone sodium phosphate is also used in the treatment of **cerebral oedema** caused by malignancy. An initial intravenous dose equivalent to 10 mg of dexamethasone phosphate is usually given followed by 4 mg intramuscularly every 6 hours; a response is usually obtained after 12 to 24 hours and dosage may be reduced after 2 to 4 days, and gradually stopped over 5 to 7 days. A much higher dosage schedule has also been suggested for use in acute life-threatening cerebral oedema; initial doses equivalent to 50 mg of dexamethasone phosphate have been given intravenously on the first day together with 8 mg intravenously every 2 hours reduced gradually over 7 to 13 days. A maintenance dose of 2 mg two or three times daily has been used in patients with recurrent or inoperable neoplasms.

The sodium phosphate ester is given by **intra-articular, intralesional**, or **soft-tissue injection**. For intra-articular injection doses equivalent to 0.8 to 4 mg of dexamethasone phosphate are used depending upon the size of the joint. For soft-tissue injection doses of 2 to 6 mg are used. Injections are repeated every 3 to 5 days to every 2 to 3 weeks.

Dexamethasone acetate may be given by **intramuscular injection** in conditions where corticosteroid treatment is indicated but a prompt response of short duration is not required; doses are equivalent to 8 to 16 mg of dexamethasone, repeated, if necessary, every 1 to 3 weeks. The acetate may also be given locally by **intra-articular** or **soft-tissue injection** in doses equivalent to 4 to 16 mg of dexamethasone, repeated, if necessary, every 1 to 3 weeks, or by **intralesional injection** in doses equivalent to 0.8 to 1.6 mg.

For **ophthalmic disorders** or for topical application in the treatment of various skin disorders, either dexamethasone or its esters may be used; concentrations are often expressed in terms of dexamethasone or dexamethasone phosphate and are commonly 0.05 to 0.1% for eye or ear drops and ointments and 0.1% for topical skin preparations. For recommendations concerning the correct use of corticosteroids on the skin, and a rough guide to the clinical potencies of topical corticosteroids, see p.1497.

For allergic rhinitis (p.565) and other allergic or inflammatory **nasal conditions**, a nasal spray containing dexamethasone isonicotinate is available; the acetate, phosphate, sodium phosphate, and sodium metasulfobenzoate have also been used.

Dexamethasone is given intravenously and orally for the prevention of **nausea and vomiting** induced by cancer chemotherapy (see below).

Other esters of dexamethasone that have occasionally been used include the hemisuccinate, linoleate, palmitate, pivalate, propionate, sodium succinate, tebutate, and valerate.

The phenpropionate and troxundate esters have been used in veterinary medicine.

Dexamethasone-releasing stents may be used to reduce restenosis after coronary artery stent placement.

Alcohol withdrawal syndrome. Dexamethasone was reported to be effective in a patient with benzodiazepine-resistant delirium tremens[1] and resolved symptoms of alcohol withdrawal syndrome resistant to other treatments in another 110 patients.[2] However, a subsequent small study found no evidence that dexamethasone was effective.[3]

1. Fischer DK, *et al*. Efficacy of dexamethasone in benzodiazepine-resistant delirium tremens. *Lancet* 1988; **i:** 1340–1.
2. Pol S, *et al*. Dexamethasone for alcohol withdrawal. *Ann Intern Med* 1991; **114:** 705–6.
3. Adinoff B, Pols B. Dexamethasone in the treatment of the alcohol withdrawal syndrome. *Am J Drug Alcohol Abuse* 1997; **23:** 615–22.

Amyloidosis. For mention of the use of dexamethasone in patients with amyloidosis, see p.743.

Blood disorders. High-dose pulsed dexamethasone therapy has been found useful in some patients with idiopathic thrombocytopenic purpura (p.1505), although results have been variable in children.

Cerebral oedema. Corticosteroids, usually dexamethasone, play an important role in the treatment of cerebral oedema in malignancy (see Raised Intracranial Pressure, p.1181), and dexamethasone is advocated for the cerebral oedema associated with high-altitude disorders (see below).

Congenital adrenal hyperplasia. Because of its lack of mineralocorticoid properties, dexamethasone has little advantage in the salt-losing form of congenital adrenal hyperplasia (p.1502), in which mineralocorticoid therapy must be given, and its potency means that dose titration to avoid toxicity can be difficult in infants and children, even with the non-salt-losing form. However, it may be useful in adults with forms of the syndrome that do not require mineralocorticoid replacement. It has also been given antenatally to the mother to prevent virilisation of female fetuses.

Diagnosis and testing. ***CUSHING'S SYNDROME.*** Dexamethasone has been used to differentiate Cushing's disease (adrenal hyperplasia caused by defects of pituitary origin) from other forms of Cushing's syndrome (caused by ectopic ACTH secretion from non-pituitary tumours or by cortisol secretion from adrenal tumours). The dexamethasone suppression test as first proposed[1] involved giving oral dexamethasone in low doses of 500 micrograms four times daily for 8 doses followed by higher doses of 2 mg four times daily for 8 doses. In the low-dose tests the urinary excretion of cortisol and 17-hydroxycorticosteroids is suppressed in healthy persons but not in patients and in the high-dose tests the excretion is still not suppressed in those with Cushing's syndrome but is partially suppressed in those with Cushing's disease. Because this test usually involves patients being admitted to hospital for urine collection over a number of days and because false-negative responses are reported to be fairly frequent, more rapid and reliable tests have been sought. The low-dose test plus measurement of serum-cortisol concentrations and the excretion of free cortisol in urine over 24 hours has been suggested[2] to be a reliable method for screening for Cushing's syndrome. In the UK a single dose of 1 mg of dexamethasone given at night is often used and is considered sufficient to inhibit corticotropin secretion for 24 hours in most subjects. In another variation[3] a single dose of dexamethasone 8 mg has been given at night and plasma-cortisol concentrations measured the next day; this test (known as the overnight high-dose dexamethasone suppression test) has again been said to be a practical and reliable alternative for the differential diagnosis of Cushing's syndrome.

Further variations in the dexamethasone suppression test have included giving a continuous intravenous infusion of dexamethasone at a rate of 1 mg/hour for 7 hours, with hourly measurement of blood-cortisol concentrations.[4] Initial results indicate that this variation produces a lower number of false-positive diagnoses than the test using oral dexamethasone. Other alternatives are a combined low-dose dexamethasone suppression test and corticotropin-releasing hormone (corticorelin) test,[5] or combination of a dexamethasone suppression test with a metyrapone test.[6]

Reviews[7,8] of diagnostic tests for Cushing's syndrome have outlined both the advantages and disadvantages of tests using dexamethasone. These suggested that where there is suspicion of Cushing's syndrome, the overnight low-dose dexamethasone suppression test may be used as part of a range of measures, and that the dexamethasone-corticorelin test may be useful when there are equivocal results from initial screening. In a study to assess the effectiveness of low-dose dexamethasone, some patients were found to suppress plasma or urinary steroid concentrations to levels previously thought to exclude a diagnosis of Cushing's syndrome. The authors concluded that these low-dose tests should not be used as the sole criterion for diagnosis, and that a much lower value for serum cortisol should be used to achieve adequate sensitivity.[9] In the differentiation of ACTH-dependent and ACTH-independent forms of Cushing's syndrome, one review[7] suggested that the high-dose dexamethasone suppression test cannot be recommended because of poor specificity.

For further discussion of the various methods used for the diagnosis of Cushing's syndrome and details of its management, see p.2344. Various drugs may interfere with the dexamethasone suppression test.

1. Liddle GW. Tests of pituitary-adrenal suppressibility in the diagnosis of Cushing's syndrome. *J Clin Endocrinol Metab* 1960; **20:** 1539–60.
2. Kennedy L, *et al*. Serum cortisol concentrations during low dose dexamethasone suppression test to screen for Cushing's syndrome. *BMJ* 1984; **289:** 1188–91.
3. Tyrrell JB, *et al*. An overnight high-dose dexamethasone suppression test for rapid differential diagnosis of Cushing's syndrome. *Ann Intern Med* 1986; **104:** 180–6.
4. Biemond P, *et al*. Continuous dexamethasone infusion for seven hours in patients with the Cushing syndrome: a superior differential diagnostic test. *Ann Intern Med* 1990; **112:** 738–42.
5. Yanovski JA, *et al*. Corticotropin-releasing hormone stimulation following low-dose dexamethasone administration: a new test to distinguish Cushing's syndrome from pseudo-Cushing's states. *JAMA* 1993; **269:** 2232–8.
6. Avgerinos PC, *et al*. The metyrapone and dexamethasone suppression tests for the differential diagnosis of the adrenocorticotropin-dependent Cushing syndrome: a comparison. *Ann Intern Med* 1994; **121:** 318–27.
7. Raff H, Findling JW. A physiologic approach to diagnosis of the Cushing syndrome. *Ann Intern Med* 2003; **138:** 980–91.
8. Arnaldi G, *et al*. Diagnosis and complications of Cushing's syndrome: a consensus statement. *J Clin Endocrinol Metab* 2003; **88:** 5593–5602.
9. Findling JW, *et al*. The low-dose dexamethasone suppression test: a reevaluation in patients with Cushing's syndrome. *J Clin Endocrinol Metab* 2004; **89:** 1222–6.

DEPRESSION. The Health and Public Policy Committee of the American College of Physicians noted that the dexamethasone suppression test for depression (p.373) was based on the premise that endogenously depressed patients have shown pituitary-adrenal axis abnormalities but had been found to have a low sensitivity for detecting depression. It was of unproven value and was not recommended as a screening test.[1] Nonetheless, interest remains; studies[2-6] have shown conflicting results.

1. Young M, Schwartz JS. The dexamethasone suppression test for the detection, diagnosis, and management of depression. *Ann Intern Med* 1984; **100:** 307–8.
2. Coryell W. DST abnormality as a predictor of course in major depression. *J Affect Disord* 1990; **19:** 163–9.
3. Płocka-Lewandowska M, *et al*. Dexamethasone suppression test and suicide attempts in schizophrenic patients. *Eur Psychiatry* 2001; **16:** 428–31.
4. Coryell W, Schlesser M. The dexamethasone suppression test and suicide prediction. *Am J Psychiatry* 2001; **158:** 748–53.
5. Black DW, *et al*. The relationship between DST results and suicidal behavior. *Ann Clin Psychiatry* 2002; **14:** 83–8.
6. Yerevanian BI, *et al*. The dexamethasone suppression test as a predictor of suicidal behavior in unipolar depression. *J Affect Disord* 2004; **83:** 103–8.

High-altitude disorders. Dexamethasone is effective in the prevention of symptoms of acute mountain sickness (p.1168), for which mild cerebral oedema may be a contributing factor, but it is not generally considered suitable for routine prophylaxis because of concern about its adverse effects. In the treatment of acute severe mountain sickness, which may involve the development of pulmonary and cerebral oedema, the mandatory treatment is immediate descent, and drug therapy is primarily adjunc-

tive, to facilitate descent or maintain the patient until descent is possible. Under these circumstances dexamethasone and oxygen form the mainstays of treatment.

References.

1. Ferrazzini G, *et al.* Successful treatment of acute mountain sickness with dexamethasone. *BMJ* 1987; **294:** 1380–2.
2. Ellsworth AJ, *et al.* A randomized trial of dexamethasone and acetazolamide for acute mountain sickness prophylaxis. *Am J Med* 1987; **83:** 1024–30.
3. Montgomery AB, *et al.* Effects of dexamethasone on the incidence of acute mountain sickness at two intermediate altitudes. *JAMA* 1989; **261:** 734–6.
4. Levine BD, *et al.* Dexamethasone in the treatment of acute mountain sickness. *N Engl J Med* 1989; **321:** 1707–13.
5. Keller H-R, *et al.* Simulated descent v dexamethasone in treatment of acute mountain sickness: a randomised trial. *BMJ* 1995; **310:** 1232–5.
6. Dumont L, *et al.* Efficacy and harm of pharmacological prevention of acute mountain sickness: quantitative systematic review. *BMJ* 2000; **321:** 267–72.

Hirsutism. Unbound testosterone concentrations were consistently elevated in 32 hirsute women; when concentrations were suppressed to normal by dexamethasone 0.5 to 1 mg at night hirsutism was generally improved or ceased to progress after 8 to 10 months of treatment.[1] Other studies have shown only a modest improvement[2] or no improvement at all[3] in hirsutism when treated with dexamethasone. Addition of dexamethasone to anti-androgen therapy appeared to prolong the duration of remission in a later study.[4]

The mainstay of drug treatment for hirsutism tends to be an anti-androgen such as cyproterone or spironolactone (p.2089). Although low dose corticosteroids can suppress adrenal androgen production, careful consideration of the risks and benefits is advisable, especially since therapy for hirsutism may have to be given long-term.

1. Paulson JD, *et al.* Free testosterone concentration in serum: elevation is the hallmark of hirsutism. *Am J Obstet Gynecol* 1977; **128:** 851–7.
2. Carmina E, Lobo RA. Peripheral androgen blockade versus glandular androgen suppression in the treatment of hirsutism. *Obstet Gynecol* 1991; **78:** 845.
3. Rittmaster RS, Thompson DL. Effect of leuprolide and dexamethasone on hair growth and hormone levels in hirsute women: the relative importance of the ovary and the adrenal in the pathogenesis of hirsutism. *J Clin Endocrinol Metab* 1990; **70:** 1096–1102.
4. Carmina E, Lobo RA. The addition of dexamethasone to antiandrogen therapy for hirsutism prolongs the duration of remission. *Fertil Steril* 1998; **69:** 1075–9.

Malaria. Corticosteroids, especially dexamethasone, have been used in cerebral malaria (p.594) in the belief that their anti-inflammatory effect would reduce cerebral oedema. However, studies have shown that cerebral oedema does not play a significant role in the pathophysiology of cerebral malaria and, indeed, double-blind studies using both moderate doses (2 mg/kg) and high doses (11 mg/kg) of dexamethasone intravenously over 48 hours found no reduction in death rates. Thus it is now considered that corticosteroids have no place in the treatment of cerebral malaria.[1]

1. Prasad K, Garner P. Steroids for treating cerebral malaria. Available in The Cochrane Database of Systematic Reviews; Issue 3. Chichester: John Wiley; 1999 (accessed 12/05/05).

Malignant neoplasms. Dexamethasone has been used in some regimens for the treatment of malignancy, for example in acute lymphoblastic leukaemia (p.651) and multiple myeloma (p.658).

Meningitis. The role of corticosteroids in the adjuvant treatment of bacterial meningitis (p.178) has been the subject of considerable debate. Studies have shown conflicting results.[1-3] However, a systematic review[4] concluded that there was evidence of benefit, particularly in reducing deafness in children in high-income countries, and in reducing mortality in adults. It has been suggested[4] that a 4-day regimen of dexamethasone be given to adults and in children in high-income countries, preferably before or with the first dose of antibacterial.

1. Molyneux EM, *et al.* Dexamethasone treatment in childhood bacterial meningitis in Malawi: a randomised controlled trial. *Lancet* 2002; **360:** 211–18.
2. de Gans J, van de Beek D. Dexamethasone in adults with bacterial meningitis. *N Engl J Med* 2002; **347:** 1549–56.
3. Thwaites GE, *et al.* Dexamethasone for the treatment of tuberculous meningitis in adolescents and adults. *N Engl J Med* 2004; **351:** 1741–51.
4. van de Beek D, *et al.* Corticosteroids for acute bacterial meningitis. Available in The Cochrane Database of Systematic Reviews; Issue 1. Chichester: John Wiley; 2007 (accessed 22/08/08).

Nausea and vomiting. Dexamethasone has antiemetic properties, particularly against acute and delayed vomiting induced by cancer chemotherapy[1] (p.1700). It may be used alone for prevention of acute symptoms associated with moderately-emetogenic treatment and is combined with a 5-HT_3 antagonist for highly-emetogenic treatment. Typical dosage regimens have been dexamethasone 4 to 8 mg orally immediately before moderately-emetogenic chemotherapy and 20 mg by intravenous injection for more severely emetogenic chemotherapy. Dexamethasone is the drug of choice for prevention of delayed symptoms, given alone or with other antiemetics. A typical oral dose is 8 mg twice daily for 2 to 4 days. Dexamethasone is also effective for the prevention of postoperative nausea and vomiting,[2] and may be used to manage nausea and vomiting in palliative care.

1. Ioannidis JPA, *et al.* Contribution of dexamethasone to control of chemotherapy-induced nausea and vomiting: a meta-analysis of randomized evidence. *J Clin Oncol* 2000; **18:** 3409–22.
2. Henzi I, *et al.* Dexamethasone for the prevention of postoperative nausea and vomiting: a quantitative systematic review. *Anesth Analg* 2000; **90:** 186–94.

Opportunistic mycobacterial infections. Dexamethasone in doses of 1 to 4 mg daily was associated with weight gain, reduction in fever, and an improved sense of well-being in 5 patients with HIV and disseminated *Mycobacterium avium* complex infection.[1] Combination antimycobacterial therapy for nontuberculous mycobacterial infections (p.181) was also given. Similar results have been noted by others.[2]

1. Wormser GP, *et al.* Low-dose dexamethasone as adjunctive therapy for disseminated Mycobacterium avium complex infections in AIDS patients. *Antimicrob Agents Chemother* 1994; **38:** 2215–17.
2. Dorman SE, *et al.* Adjunctive corticosteroid therapy for patients whose treatment for disseminated Mycobacterium avium complex infection has failed. *Clin Infect Dis* 1998; **26:** 682–6.

Respiratory disorders. Corticosteroids such as dexamethasone have been given antenatally to mothers at risk of premature delivery in order to hasten fetal lung maturation and help prevent *neonatal respiratory distress syndrome* (p.1508) and *bronchopulmonary dysplasia* (p.1500). Neonatal dexamethasone has been reported to improve pulmonary outcome and assist weaning from mechanical ventilation in infants that have developed bronchopulmonary dysplasia.

Dexamethasone is also one of the drugs of choice for the management of severe *croup* (see p.1502). However, as with other corticosteroids (p.1500) it appears to be of little value in *bronchiolitis*.[1,2]

1. Roosevelt G, *et al.* Dexamethasone in bronchiolitis: a randomised controlled trial. *Lancet* 1996; **348:** 292–5.
2. Klassen TP, *et al.* Dexamethasone in salbutamol-treated inpatients with acute bronchiolitis: a randomized controlled trial. *J Pediatr* 1997; **130:** 191–6.

Retinopathy of prematurity. For a suggestion that antenatal dexamethasone might be helpful in the prophylaxis of retinopathy of prematurity, see p.1994. For mention of the uncertain effect of neonatal dexamethasone on retinopathy of prematurity, see Effects on the Neonate, under Adverse Effects above.

Preparations

BP 2008: Dexamethasone and Neomycin Ear Spray; Dexamethasone Sodium Phosphate Injection; Dexamethasone Tablets;
USP 31: Ciprofloxacin and Dexamethasone Otic Suspension; Dexamethasone Acetate Injectable Suspension; Dexamethasone Elixir; Dexamethasone Gel; Dexamethasone Ophthalmic Suspension; Dexamethasone Oral Solution; Dexamethasone Sodium Phosphate Cream; Dexamethasone Sodium Phosphate Inhalation Aerosol; Dexamethasone Sodium Phosphate Injection; Dexamethasone Sodium Phosphate Ophthalmic Ointment; Dexamethasone Sodium Phosphate Ophthalmic Solution; Dexamethasone Tablets; Dexamethasone Topical Aerosol; Neomycin and Polymyxin B Sulfates and Dexamethasone Ophthalmic Ointment; Neomycin and Polymyxin B Sulfates and Dexamethasone Ophthalmic Suspension; Neomycin Sulfate and Dexamethasone Sodium Phosphate Cream; Neomycin Sulfate and Dexamethasone Sodium Phosphate Ophthalmic Ointment; Neomycin Sulfate and Dexamethasone Sodium Phosphate Ophthalmic Solution; Tobramycin and Dexamethasone Ophthalmic Ointment; Tobramycin and Dexamethasone Ophthalmic Suspension.

Proprietary Preparations (details are given in Part 3)

Arg.: Decadron; Degabina; Dexafarm†; Dexalaf; Dexalergin; Dexameral; Dexatotal; Duo Decadron; Fadametasona†; Gotabiotic D; Ingedex; Isopto Maxidex; Lormine; Nexadron; Rupedex; Sedesterol; Trofinan; ***Austral.:*** Dexmethsone; Maxidex; ***Austria:*** Dexabene; Fortecortin; ***Belg.:*** Aacidexam; Decadron†; Dexa-Sine; Maxidex; Oradexon; ***Braz.:*** Cortidex†; Cortitop; Decadron; Decadronal; Deflaren; Dexacilin; Dexaden; Dexadermil; Dexaflan†; Dexagreen; Dexameson; Dexametax†; Dexametonal†; Dexametrat†; Dexamex†; Dexaminor; Dexanil; Dexason; Dexazen†; Dexazona; Dexmene†; Dextasona†; Maxidex; Metaxon; Minidex; Neodex; Netazon†; Topidexa; Uni Dexa; ***Canad.:*** Decadron†; Dexasone; Diodex†; Hexadrol†; Maxidex; ***Chile:*** Maxidex; Oradexon; ***Cz.:*** Baycuten; Dexa†; Dexaltin; Dexamed; Dexapos†; Dexason†; Dexona†; Fortecortin; ***Denm.:*** Decadron†; Maxidex; ***Fin.:*** Decadron†; Kaarmepakkaus; Oftan Dexa; Oradexon; ***Fr.:*** Dectancyl; Desocort†; Maxidex; ***Ger.:*** afpred-DEXA; Auxiloson†; Cortidexason†; Cortisumman†; Dexa; Dexa Loscon mono; Dexa-Allvoran; dexa-clinit; Dexa-Effekton; Dexa-ratiopharm; Dexa-Rhinospray Mono; Dexa-sine; Dexabene; Dexabeta; DexaEDO; Dexaflam; Dexagalen; Dexagel; Dexahexal; Dexamonozon; Dexamonozon N†; Dexapos; Fortecortin; Isopto Dex; Lipotalon; Solupen N; Solutio Cordes Dexa N; Spersadex; Totocortin; Tuttozem N; ***Gr.:*** Decadron; Dexacollyre; Dexaton; Inniozol; Maxidex; Oradexon; Soldesanil; Thilodexine; Thiloxedine†; ***Hong Kong:*** Dexaltin; Dexamed; Dexasone; Dexmetha; Dexmethsone; Maxidex; Spersadex†; ***Hung.:*** Dexa; Maxidex; Oradexon; ***India:*** Decdan; Dexacip; Dexasone; Dexona; Millicortenol; Wymesone; ***Indon.:*** Cetadexon; Cortidex; Danasone; Decilone; Dellamethasone; Dexa-M; Etason; Fortecortin; Indexon; Inthesa-5; Kalmethasone; Lanadexon; Licodexon; Molacort; Nufadex; Oradexon; Prodexon; Pycameth; Pyradexon; Scandexon; ***Irl.:*** Decadron†; Maxidex; ***Israel:*** Dexacort; Maxidex; Sterodex; ***Ital.:*** Decadron; Dermadex; Etacortilen; Luxazone; Megacort; Soldesam; Visumetazone; ***Jpn:*** Limethason; Methaderm; ***Malaysia:*** Cortidax†; Decadron†; Decan; Dexalone; Dexaltin; Dexasone; Limethason†; Maxidex; ***Mex.:*** Adrecort; Alin; Azona; Baycuten; Beminex; Cortidex; Cryometasona; Decadron; Decadronal; Decorex; Dexafrin; Dexagrin; Dexal; Dexamilan; Dexicar; Dexona; Dibasona; Examsa; Indarzona-N; Lergosin; Maxidex; Metax; Migradexan†; Pardex; Reusan; Taprodex; Taxyl; ***Neth.:*** Decadron†; Dexa-POS; Oradexon; ***Norw.:*** Decadron†; Isopto Maxidex; Spersadex; ***NZ:*** Maxidex; ***Philipp.:*** Cordex; Dabrin; Decan; Decilone; Drenex; Isodexam; Maxidex; Midexone; Oradexon; Penodex; Santeson; Scancortin; Vexamet; ***Pol.:*** Dexafree; Dexapolcort; Dexaven; ***Port.:*** Decadron; Dexaval; Oradexon; Ronic; ***Rus.:*** Detametazon (Детаметажон)†; Dexamed (Дексамед); Dexapos (Дексапос); Dexaven (Дексавен); Dexona (Дексона Д); Maxidex (Максидекс); Oftan Dexamethason (Офтан Дексаметазон); ***S.Afr.:*** Decadron; Decasone; Maxidex; Oradexon†; Spersadex; ***Singapore:*** Decan; Decordex; Dexaltin; Dexamed; Dexasone; Erladexone†; Limethason†; Maxidex; Mexasone†; ***Spain:*** Dalamon Inyectable; Fortecortin; Maxidex; ***Swed.:*** Decadron†; Dexacortal; Isopto Maxidex; Opnol; ***Switz.:*** Decadron†; Dexacortin; Dexacortin-K†; Dexalocal; Fortecortin; Maxidex; Mephamesone; Millicortene†; Spersadex; ***Thai.:*** B Dexol; Decadron; Dexa ANB; Dexa-P†; Dexa†; Dexaltin; Dexano; Dexasone; Dexion; Dexon; Dexthasol; Dexton; Limethason†; Oradexon; Phenodex; ***Turk.:*** Cebedex; Dekort; Deksalon; Deksamet; Dexa-Sine; Maxidex; Onadron; Spersadex; ***UK:*** Decadron†; Dexsol; Maxidex; ***USA:*** AerosebDex; Dalalone; Decadron; Decaspray; Dexameth†; Dexasone; Dexone; DexPak; Hexadrol; Maxidex; Solurex†; ***Venez.:*** Decadron†; Decalona; Decobel; Dexacort; Dexamin; Maradex; Metalexina†.

Multi-ingredient: ***Arg.:*** Alergi; Belbar; Bicrinol; Bio Cabal†; Biocort; Bioptic DX; Biotaer Ultrason Nebulizable†; Ciloxadex; Ciprocort; Cortaler Novo†; Decadron con Ciprofloxina; Decadron con Neomicina; Decadron con Tobramicina; Dexa Aminofilin; Dexa Teosona; Dexa-Rhinospray N; Dexabion; Dexafurazon†; Dexalergin; Dexamytrex; Dexaprof D; Dexatopic†; Empecid Cort; Exudrol con Dexametasona; Factioneye; Flexicamin B12; Flogiatrin B12; Fluoropoen; Fotadex; Gotabiotic F; Hongal; Isoptomax; Klonamicin Compuesto; Larsen; Linfol; Mefenix Relax†; Melasmax; Naxo TV; Neodexa Plus; Neoftalm Dexa; Neolag; Neosona; Nexadron Compuesto; Nexadron Plus; Nipiol†; Paraflex Plus; Polioftal; Polyplex; Proetztotal; Provisual Compuesto; Quidex; Radina Dex; Sincerum Biotic; Sincerum Biotic L; Sindrolen†; Solocalm Plus; Tacines; Tobrabiotic D; Tobracort; Tobradex; Tobragan D; Toflamixina Plus; Tratomax; Trimepol D; Vixalerg; Vixidone; Vixidone T†; Xao-Dex†; Xibradex; ***Austral.:*** Otodex; Sofradex; ***Austria:*** Ambene; Dexagenta; Dexasalyl†; Multodrin; Rheumesser; Tobradex; Uromont; ***Belg.:*** De Icin†; De Icol; Dexa-Polyspectran New; Dexa-Rhinospray; Dexagenta-POS; Frakidex; Maxitrol; Percutalgine; Polydexa; Tobradex; ***Braz.:*** Baycuten; Biamotil-D; Cianotrat-Dexa; Cilodex; Cylocort; Decadron Colirio; Decadron Nasal; Dexa-Citoneurin; Dexa-Cronobe; Dexa-Neuriberi†; Dexacilin; Dexaclor†; Dexacobal; Dexacort†; Dexador; Dexadoze; Dexafenicol; Dexagil; Dexalgen; Dexamytrex†; Dexaneurin; Dexanevral†; Dexanil; Dexavison; Dexazona; Duo-Decadron; Emistin; Fenidex; Gynax-N; Hidrocin; Maxiflox D; Maxitrol; Metcort; Neocortin; Neodex; Nepodex; Otofenicol-D†; Rinosbon†; Tobracin D; Tobracort; Tobradex; Trivagel N; Vagitrin-N; Vitatonus Dexa; ***Canad.:*** Ciprodex; Dioptrol†; Maxitrol; Opticort; Sofracort; Tobradex; ***Chile:*** Baycuten; Cilodex; Ciprodex; Dexagin; Grifoftal-D; Maxitrol; Oflono-D; Poentobral Plus; Spersadex Comp†; Telugren Plus; Tobradex; Tobragan D; Tobrin-D; Todexona; Tribesona; Xolof D; ***Cz.:*** Dexa-Gentamicin; Doxiproct Plus; Maxitrol; Otobacid N; Pulpomixine; Sofradex†; Spersadex Compositum; Tobradex; ***Denm.:*** Decadron med Neomycin†; Sofradex; Spersadex Comp; ***Fin.:*** Maxitrol; Oftan Dexa-Chlora; Sofradex; ***Fr.:*** Auricularum; Cebedexacol; Chibro-Cadron; Corticetine; Dexagrane; Frakidex; Framyxone; Maxidrol; Percutalgine; Polydexa; Ster-Dex; Tobradex; ***Ger.:*** Baycuten†; Corti Biciron N; Cortidexason comp; Corto-Tavegil†; Dexa Biciron; Dexa Polyspectran; Dexa-Gentamicin; Dexa-Phlogont L†; Dexa-Siozwo; Dexamytrex; Dispadex comp; Duodexa N†; Ell-Cranell dexa; Isopto Max; Lokalison-antimikrobiell Creme N; Nystalocal; Otobacid N; Rheumasit†; Rhinoguttae Dexamethasoni cum Naphazolino†; Spersadex Comp†; Spersadexolin†; Supertendin; Supertendin 2000 N†; Ultra-Demoplas†; Uro-Stilloson†; ***Gr.:*** Afacort; Antilerg-F†; Chlorapred; Dexa-Rhinaspray-N; Dexachlor; Dexamycin; Dexamytrex; Dispersadron-C; Ekzegamma†; Eyebrex-Dexa†; Fluoscin†; Genefacort†; Gentadex; Isopto Maxitrol; Lofoto; Nezefib; O-Biotic; Otocort; Otomize; Saocin-D; Spersadexolin†; Thilomicine Dex; Tobradex; Urecortin; ***Hong Kong:*** Chloram-D; Dexoph; Dextracin; Eurodron; Frakidex; Maxitrol; Neo-Dex (Improved); Parasone; Polydex-N; Polydexa; Sofradex; Sonexa-C; Spersadex Comp; Spersadexolin†; Tobradex; ***Hung.:*** Dexapolcort N; Doxiprocт Plus; Spersadex Comp†; Tobradex; ***India:*** Ciplox D; Decdan-N; Dexona Eye/Ear; Dexosyn Plus; Dexosyn-C; Dexosyn-N; Gentacip D; Millicorten-Vioform; Mycidex†; Obrasone; Ocupol-D; Ocutob-D; Oflox D; Pyrimon; Sofracort; Sofradex; Sofradex-F; Tobazon DM; ***Indon.:*** Alegi; Alerdex; Baycuten-N; Blecidex; Bralifex Plus; Dexatopic; Dextafen; Dextamine; Inmatrol; Isotic Neolyson; Isotic Tobrizon; Kloramixin D; Lorson; Lotharson; Maxitrol; Oregan; Osatrol; Polidemisin; Pritacort; Sofradex; Soldextam; Spersadex Comp; Tobradex; Trodex; Ximex Optixitrol; ***Irl.:*** Dexa-Rhinaspray Duo; Maxitrol; Otomize; Sofradex; ***Israel:*** Adexone; Auricularum; Desoren; Dethamycin; Dethaphrine; Dex-Otic; Dexamycin; Dexefrin; Maxitrol; Otomize†; Polycutan; Tarocidin D; Tevacutan; ***Ital.:*** Cloradex; Corti-Arscolloid; Desalfa; Desamix Effe; Desamix-Neomicina; Dexoline; Doxiprocт; Eta Biocortilen; Eta Biocortilen VC; Luxazone Eparina; Neo Cortofen; Netildex; Tobradex; Visumetazone Antistaminico; Visumetazone Decongestionante; ***Jpn:*** Una A Gel; ***Malaysia:*** Baycuten N; De Icol; Dexa-Gentamicin†; Dexamytrex†; Dextracin; Gentadexa; Maxitrol; Neo-Deca; Sofradex; Spersadex Comp†; Spersadexoline; Tobradex; ***Mex.:*** Alin Nasal; Alin Oftalmico; Baycuten N; Bexine; Biodexan; Butisel; Cilodex; Cloxona-O; Decadron con Neomicina; Decadron con Nistatina; Dexabion; Dexadutil; Dexamicin; Dexne; Dexsul; Dextone; Dibutasona; Dinill-D; Doxiprocт Plus; Exafenil; Gotadex†; Innobion; Kodakon†; Lergosin A; Levodexan; Levofenil; Maxitrol; Mildex; Neobacigrin; Neuralin; Nispil; Obrydex; Odexan; Ofodex; Polideltaxin NF; Rinadex Compuesto; Rinidyl DN; Soldrin; Sondex-Of; Tiamidexal; Timpacil; Tobracort; Tobradex; Trazidex; Trineurovita Compuesto; UV IX†; Vengesic†; Zolidime†; ***Neth.:*** Dexagenta-POS; Dexamytrex; Dexatopic†; Maxitrol; Sofradex; Tobradex; ***Norw.:*** Maxitrol; Sofradex; Spersadex med kloramfenikol; ***NZ:*** Maxitrol; Sofradex; Tobradex; ***Philipp.:*** Baycuten; Dexamytrex; Dexanicol; Maxirap; Maxitrol; Maxoptic; Postop; Postotic; Spersadex Compound; Syntemax; Tobradex; ***Pol.:*** Dexadent; Dexamytrex; Dexapolcort N; Maxitrol; Tobradex; ***Port.:*** Baycuten; Decadron com Neomicina; Dexamytrex; Dexaval A; Dexaval N; Dexaval O; Dexaval V; Doxiprocт Plus; Frakidex; Gentadexa; Otomize†; Polydexa; ***Rus.:*** Ambene (Амбене); Dexa-Gentamicin (Декса-Гентамицин); Dexona (Дексона); Maxitrol (Макситрол); Percutalgine (Перкуталжин)†; Polydexa (Полидекса); Polydexa with Phenylephrine (Полидекса С Фенилефрином); Tobradex (Тобрадекс); Tobrasone (Тобразон); ***S.Afr.:*** Covomycin-D; Maxitrol; Sofradex; Spersadex Comp; Spersadexoline; Tobradex; ***Singapore:*** Dexamytrex; Dextracin; Frakidex†; Maxitrol; Polydexa; Sofradex; Spersadex Comp†; Spersadexoline†; Tobradex; ***Spain:*** Amplidermis; Broncoformo Muco Dexa; Cloran Hemidex; Cresophene; Dalamon†; Decadran Neomicina†; Dexa Tavegil; Dexam Constric†; Gentadexa; Hem Anth; Hongosan; Icol; Inzitan; Liquipom Dexa Antib; Maxitrol; Neodexa; Neurocatavin Dexa†; Neurodavur Plus; Oftalmotrim Dexa†; Otix; Oto Vitna†; Phonal; Resorborina; Rino Dexa; Sabanotropico; Sedofarin; Tobradex; Vasodexa; ***Swed.:*** Decadron cum neomycin†; ***Switz.:*** Antikeloides Creme; Chronocorte; Corticetine†; Cresophene†; Dexalocal-F; Dexasalyl; Dexolan; Doxiprocт Plus; Frakidex; Maxitrol; Nystalocal; Otospray†; Pigmanorm; Polydexa; Sebo-Psor; Sofradex; Spersadex Comp; Spersadexoline†; Tobradex; ***Thai.:*** Archidex; Cadexcin-N†; Decadron with Neomycin†; Dexacin; Dexamytrex; Dexasil†; Dexoph; Dexylin; Eyedex; Maxitrol; Neo-Optal; Neodex; Opsardex†; Percutalgine†; Sofradex; Spersadexoline; Tobradex; Trabit†; Vesoph;

UK: Dexa-Rhinaspray Duo†; Maxitrol; Otomize; Sofradex; Tobradex; ***USA:*** Ak-Neo-Dex; Ak-Trol†; Ciprodex; Dexacidin†; Dexacine†; Dexasporin; Maxitrol; Neo-Dexameth†; NeoDecadron†; Neodexasone; Neopolydex; Ocu-Trol; Poly-Dex; Tobradex; ***Venez.:*** Baycuten N; Cipromet†; Cyprodex; Decadron†; Decaven; Deicol†; Dexaneol†; Dexapostafen; Gentidexa; Kanasone†; Maxicort; Maxitrol; Otocort; Poentobral Plus; Poli-Otico; Quinocort; Tobracort; Tobradex; Tobragan D; Todex; Trazidex.

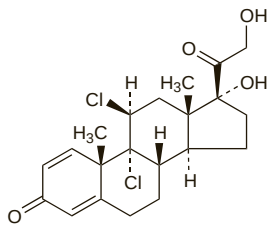
Dichlorisone Acetate *(rINNM)* ⊗

Acetato de diclorisona; Dichlorisone, Acétate de; Dichlorisoni Acetas; Diclorisone Acetate. 9α,11β-Dichloro-17α,21-dihydroxypregna-1,4-diene-3,20-dione 21-acetate.

Дихлоризона Ацетат

$C_{23}H_{28}Cl_2O_5$ = 455.4.

CAS — 7008-26-6 (dichlorisone); 79-61-8 (dichlorisone acetate).



(dichlorisone)

Profile

Dichlorisone acetate is a corticosteroid used topically for its glucocorticoid activity (p.1490) in the treatment of various skin disorders. It is usually used as a cream containing 0.25 or 1%.

When applied topically, particularly to large areas, when the skin is broken, or under occlusive dressings, corticosteroids may be absorbed in sufficient amounts to cause systemic effects (see p.1490). The effects of topical corticosteroids on the skin are described on p.1492. For recommendations concerning the correct use of corticosteroids on the skin, see p.1497.

Preparations

Proprietary Preparations (details are given in Part 3)
Spain: Dermaren; Dicloderm Forte.

Diflorasone Diacetate *(BANM, USAN, rINNM)* ⊗

Diacetato de diflorasona; Diflorasone, Diacetate de; Diflorasoni Diacetas; U-34865. 6α,9α-Difluoro-11β,17α,21-trihydroxy-16β-methylpregna-1,4-diene-3,20-dione 17,21-diacetate.

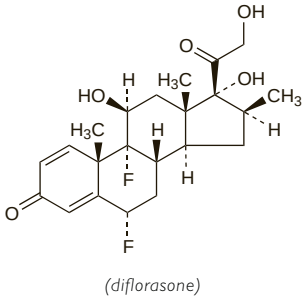
Дифлоразона Диацетат

$C_{26}H_{32}F_2O_7$ = 494.5.

CAS — 2557-49-5 (diflorasone); 33564-31-7 (diflorasone diacetate).

ATC — D07AC10.

ATC Vet — QD07AC10.



(diflorasone)

Pharmacopoeias. In *US.*

USP 31 (Diflorasone Diacetate). A white to pale yellow, crystalline powder. Insoluble in water; soluble in acetone and in methyl alcohol; very slightly soluble in ether; sparingly soluble in ethyl acetate; slightly soluble in toluene. Store in airtight containers.

Profile

Diflorasone diacetate is a corticosteroid used topically for its glucocorticoid activity (p.1490) in the treatment of various skin disorders. It is usually used as a cream or ointment containing 0.05%.

When applied topically, particularly to large areas, when the skin is broken, or under occlusive dressings, corticosteroids may be absorbed in sufficient amounts to cause systemic effects (p.1490). The effects of topical corticosteroids on the skin are described on p.1492. For recommendations concerning the correct use of corticosteroids on the skin, and a rough guide to the clinical potencies of topical corticosteroids, see p.1497.

Preparations

USP 31: Diflorasone Diacetate Cream; Diflorasone Diacetate Ointment.

Proprietary Preparations (details are given in Part 3)
Ger.: Florone; ***Ital.:*** Dermaflor†; ***Mex.:*** Diasorane; ***Spain:*** Murode; ***USA:*** ApexiCon; Florone; Maxiflor; Psorcon.

Multi-ingredient: ***Arg.:*** Filoderma; Filoderma Plus; Griseocrem; Novo Bacticort Complex†; Novo Bacticort†.

Diflucortolone *(BAN, USAN, rINN)* ⊗

Diflucortolona; Diflucortolonum; Diflukortolon; Diflukortoloni. 6α,9α-Difluoro-11β,21-dihydroxy-16α-methylpregna-1,4-diene-3,20-dione.

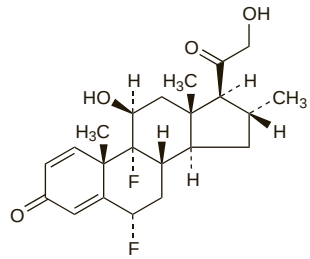
Дифлукортолон

$C_{22}H_{28}F_2O_4$ = 394.5.

CAS — 2607-06-9.

ATC — D07AC06.

ATC Vet — QD07AC06; QD07XC04.



Diflucortolone Pivalate *(BANM, USAN, rINNM)* ⊗

Diflucortolone, Pivalate de; Diflucortoloni Pivalas; Pivalato de diflucortolona; SH-968. Diflucortolone 21-pivalate.

Дифлукортолона Пивалат

$C_{27}H_{36}F_2O_5$ = 478.6.

CAS — 15845-96-2.

ATC — D07AC06.

ATC Vet — QD07AC06.

Diflucortolone Valerate *(BANM, rINNM)* ⊗

Diflucortolone, Valérate de; Diflucortoloni Valeras; Diflukortolon Valerat; Valerato de diflucortolona. Diflucortolone 21-valerate.

Дифлукортолона Валерат

$C_{27}H_{36}F_2O_5$ = 478.6.

CAS — 59198-70-8.

ATC — D07AC06.

ATC Vet — QD07AC06.

Pharmacopoeias. In *Br.*

BP 2008 (Diflucortolone Valerate). A white to creamy white crystalline powder. Practically insoluble in water; freely soluble in dichloromethane and in dioxan; sparingly soluble in ether; slightly soluble in methyl alcohol. Protect from light.

Profile

Diflucortolone is a corticosteroid used topically for its glucocorticoid activity (p.1490) in the treatment of various skin disorders. It is usually used as a cream or ointment containing 0.1 or 0.3% of the valerate.

When applied topically, particularly to large areas, when the skin is broken, or under occlusive dressings, corticosteroids may be absorbed in sufficient amounts to cause systemic effects (p.1490). The effects of topical corticosteroids on the skin are described on p.1492. For recommendations concerning the correct use of corticosteroids on the skin, and a rough guide to the clinical potencies of topical corticosteroids, see p.1497.

Preparations

BP 2008: Diflucortolone Cream; Diflucortolone Oily Cream; Diflucortolone Ointment.

Proprietary Preparations (details are given in Part 3)
Arg.: Nerisona; ***Austria:*** Neriforte; Nerisona; ***Belg.:*** Nerisona; ***Braz.:*** Nerisona; ***Canad.:*** Nerisone; ***Denm.:*** Nerisona; ***Fr.:*** Nerisone; ***Ger.:*** Nerisona; ***Hong Kong:*** Nerisone; ***Indon.:*** Nerilon; Nerisona; Valeron; ***Israel:*** Neriderm; ***Ital.:*** Cortical; Dermaval; Dervin; Dicortal†; Flu-Cortanest; Nerisona; Temetex; ***Malaysia:*** Nerisone†; ***Mex.:*** Nerisona; ***Neth.:*** Nerisona; ***NZ:*** Nerisone; ***Philipp.:*** Nerisona; ***Port.:*** Nerisona; ***S.Afr.:*** Nerisone; ***Singapore:*** Nerisone†; ***Spain:*** Claral; ***Switz.:*** Nerisona†; ***Turk.:*** Temetex; ***UK:*** Nerisone.

Multi-ingredient: ***Arg.:*** Diflunazol†; Nerisona C; Scheriderm; ***Austria:*** Travocort; ***Belg.:*** Travocort; ***Braz.:*** Bi-Nerisona; ***Canad.:*** Nerisalic; ***Chile:*** Bi-Nerisona; ***Fr.:*** Nerisalic; Nerisone C; ***Ger.:*** Nerisona C†; Travocort; ***Gr.:*** Travocort; ***Hong Kong:*** Nerisone C; Travocort; ***Indon.:*** Nerisona Combi; Travocort; ***Irl.:*** Travocort; ***Israel:*** Isocort; Multiderm; Tevaderm; ***Ital.:*** Corti-Fluoral; Dermaflogil; Impetex; Nerisalic; Nerisona C; Travocort; ***Malaysia:*** Isoradin; Travocort; ***Mex.:*** Bi-Nerisona; Scheriderm; ***NZ:*** Nerisone C; ***Philipp.:*** Nerisona Combi; Travocort; ***Pol.:*** Travocort; ***Port.:*** Nerisona C; Travocort; ***Rus.:*** Travocort (Травокорт); ***S.Afr.:*** Travocort; ***Singapore:*** Nerisone C†; Travocort; ***Spain:*** Claral Plus; ***Switz.:*** Travocort; ***Thai.:*** Travocort; ***Turk.:*** Impetex; Nerisona C; Travazol; Travocort; ***Venez.:*** Binerisona.

Difluprednate *(USAN, rINN)* ⊗

CM-9155; Difluprednato; Difluprednatum; W-6309. 6α,9α-Difluoro-11β,17α,21-trihydroxypregna-1,4-diene-3,20-dione 21-acetate 17-butyrate.

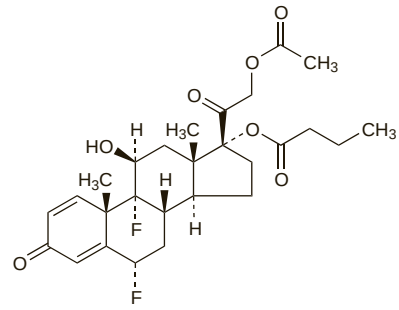
Дифлупреднат

$C_{27}H_{34}F_2O_7$ = 508.6.

CAS — 23674-86-4.

ATC — D07AC19.

ATC Vet — QD07AC19.



Profile

Difluprednate is a corticosteroid used topically for its glucocorticoid activity (p.1490) in the treatment of various skin disorders. It is usually used as a cream or gel; concentrations used are 0.02 or 0.05%.

When applied topically, particularly to large areas, when the skin is broken, or under occlusive dressings, corticosteroids may be absorbed in sufficient amounts to cause systemic effects (p.1490). The effects of topical corticosteroids on the skin are described on p.1492. For recommendations concerning the correct use of corticosteroids on the skin, see p.1497.

Difluprednate is under investigation as a 0.05% ophthalmic emulsion for the treatment of inflammation following ocular surgery and uveitis.

Preparations

Proprietary Preparations (details are given in Part 3)
Fr.: Epitopic; ***Jpn:*** Myser†.

Fluclorolone Acetonide *(BAN, rINN)* ⊗

Acetónido de fluclorolona; Fluclorolone, Acétonide de; Flucloroloni Acetonidum; Fluocloronide *(USAN)*; Fluklorolonacetonid; Flukloroloniasetonidi; RS-2252. 9α,11β-Dichloro-6α-fluoro-21-hydroxy-16α,17α-isopropylidenedioxypregna-1,4-diene-3,20-dione.

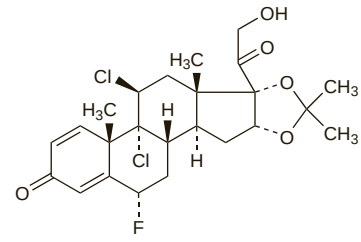
Флуклоролона Ацетонид

$C_{24}H_{29}Cl_2FO_5$ = 487.4.

CAS — 3693-39-8.

ATC — D07AC02.

ATC Vet — QD07AC02.



Profile

Fluclorolone acetonide is a corticosteroid used topically for its glucocorticoid activity (p.1490) in the treatment of various skin disorders. It is usually used as a cream containing 0.2%.

When applied topically, particularly to large areas, when the skin is broken, or under occlusive dressings, corticosteroids may be absorbed in sufficient amounts to cause systemic effects (p.1490). The effects of topical corticosteroids on the skin are