into inactive oligopeptides, and then by aminopeptidases into free amino acids. Most of a dose is excreted in urine within 24 hours. The terminal half-life of tetracosactide is about 3 hours.

Uses and Administration

Tetracosactide is a synthetic polypeptide with general properties similar to those of corticotropin (p.1524). Tetracosactide is used diagnostically to investigate adrenocortical insufficiency (p.1498).

Although tetracosactide, like corticotropin, has also been used therapeutically for most of the conditions in which systemic corticosteroid therapy is indicated, it is now rarely used for such indications.

Tetracosactide is usually used in the form of the acetate although doses are often expressed in terms of tetracosactide itself.

For diagnostic purposes tetracosactide acetate is used intramuscularly or intravenously as a plain injection in the first instance then, if results are inconclusive, intramuscularly as a long-acting depot injection. The initial test using the plain injection is based on the measurement of plasma-cortisol concentrations immediately before and exactly 30 minutes after an intramuscular or intravenous injection equivalent to 250 micrograms of tetracosactide; adrenocortical function may be regarded as normal if there is a rise in the cortisol concentration of at least 200 nanomoles/litre (70 micrograms/litre). A suggested intravenous dose in children has been 250 micrograms per 1.73 m^2.

If the results of this test are equivocal the long-acting depot preparation may be used, the adult dose being 1 mg of tetracosactide acetate given intramuscularly. Adrenocortical function is regarded as normal if plasma-cortisol concentrations have steadily increased to 1000 to 1800 nanomoles/litre 5 hours after the injection. A 3-day test, for example with 1 mg of the depot preparation given each morning, is also used to differentiate between primary and secondary adrenocortical insufficiency; this is preceded on the first day and followed on the fourth day by the test using the plain injection. A marked improvement in the second assessment suggests secondary adrenocortical insufficiency.

For therapeutic purposes tetracosactide acetate has been given by intramuscular injection as the long-acting depot preparation. The usual initial adult dose of tetracosactide acetate has been 1 mg daily (or 1 mg every 12 hours in acute cases), reduced after the acute symptoms have been controlled to 0.5 to 1 mg every 2 or 3 days or 1 mg weekly. For children aged 3 to 5 years, a dose of 250 to 500 micrograms intramuscularly has been given daily initially, and then every 2 to 8 days for maintenance. A dose of 0.25 to 1 mg has been used similarly in children aged 5 to 12 years.

Tetracosactide has also been used in children aged 1 month and older to manage infantile spasms in a dose of 500 micrograms by intramuscular injection given on alternate days and adjusted according to response.

◊ Reviews.

1. Dorin RI, *et al.* Diagnosis of adrenal insufficiency. *Ann Intern Med* 2003; **139:** 194–204.

Post-dural puncture headache. There are anecdotal reports of the relief of post-dural puncture headache by corticotropin or, more recently, tetracosactide.[1-5] Intramuscular injection and intravenous infusion have both been used, but a controlled study[6] in 18 women found that a single intramuscular dose of tetracosactide 1 mg was no more beneficial than sodium chloride 0.9%. As discussed on p.1851, many patients respond to conservative measures.

1. Collier BB. Treatment for post dural puncture headache. *Br J Anaesth* 1994; **72:** 366–7.
2. Foster P. ACTH treatment for post-lumbar puncture headache. *Br J Anaesth* 1994; **73:** 429.
3. Kshatri AM, Foster PA. Adrenocorticotropic hormone infusion as a novel treatment for postdural puncture headache. *Reg Anesth* 1997; **22:** 432–4.
4. Carter BL, Pasupuleti R. Use of intravenous cosyntropin in the treatment of postdural puncture headache. *Anesthesiology* 2000; **92:** 272–4.
5. Cánovas L, *et al.* Use of intravenous tetracosactin in the treatment of postdural puncture headache: our experience in forty cases. *Anesth Analg* 2002; **94:** 1369.
6. Rucklidge MWM, *et al.* Synacthen Depot for the treatment of postdural puncture headache. *Anaesthesia* 2004; **59:** 138–41.

Preparations

BP 2008: Tetracosactide Injection; Tetracosactide Zinc Injection.

Proprietary Preparations (details are given in Part 3)
Austral.: Synacthen; ***Austria:*** Synacthen; ***Belg.:*** Synacthen; ***Canad.:*** Cortrosyn; Synacthen Depot; ***Chile:*** Synacthen; ***Cz.:*** Synacthen†; ***Denm.:*** Synacthen; ***Fr.:*** Synacthene; ***Ger.:*** Synacthen; Synacthen Depot; ***Gr.:*** Cortrosyn; Nuvacthen; Synacthene; ***Hong Kong:*** Cortrosyn; ***Irl.:*** Synacthen; ***Israel:*** Cortrosyn†; Synacthen; ***Ital.:*** Cortrosyn†; Synacthen; ***Neth.:*** Cortrosyn†; Synacthen; ***NZ:*** Synacthen; ***Port.:*** Synacthen; ***Rus.:*** Synacthen (Синактен); Synacthen Depot (Синактен Депо); ***S.Afr.:*** Synacthen Depot; ***Spain:*** Nuvacthen Depot; ***Swed.:*** Synacthen; ***Switz.:*** Synacthen; Synacthen Depot; ***Thai.:*** Cortrosyn; ***Turk.:*** Synacthen Depot; ***UK:*** Synacthen; Synacthen Depot; ***USA:*** Cortrosyn; ***Venez.:*** Synacthen.

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

JO-1016; Pivalato de tixocortol; Tixocortol, Pivalate de; Tixocortoli Pivalas. 11β,17α-Dihydroxy-21-mercaptopregn-4-ene-3,20-dione 21-pivalate.

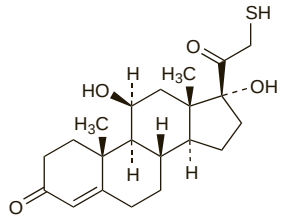
Тиксокортола Пивалат

$C_{26}H_{38}O_5S$ = 462.6.

CAS — 61951-99-3 (tixocortol); 55560-96-8 (tixocortol pivalate).

ATC — A07EA05; R01AD07.

ATC Vet — QA07EA05; QR01AD07.



(tixocortol)

Profile

Tixocortol pivalate is a corticosteroid with mainly glucocorticoid activity (p.1490). It is used as buccal, nasal, throat, and rectal preparations. It is reported to undergo rapid first-pass metabolism, primarily in the liver, and to have minimal systemic effect.

Preparations

Proprietary Preparations (details are given in Part 3)
Belg.: Rhinovalon†; ***Fr.:*** Pivalone; ***Neth.:*** Pivalone†; Rectovalone†; ***Singapore:*** Pivalone; ***Spain:*** Tiovalone†; ***Switz.:*** Pivalone.

Multi-ingredient: ***Belg.:*** Rhinovalon Neomycine†; ***Fr.:*** Oropivalone Bacitracine†; Thiovalone; ***Singapore:*** Pivalone Neomycin†; ***Switz.:*** Oro-Pivalone; Pivalone compositum.

Triamcinolone *(BAN, rINN)* ⊗

9α-Fluoro-16α-hydroxyprednisolone; Fluoxiprednisolonum; Triamcinolon; Triamcinolona; Triamcinolonas; Triamcinolonum; Triamcynolon; Triamsinoloni. 9α-Fluoro-11β,16α,17α,21-tetrahydroxypregna-1,4-diene-3,20-dione.

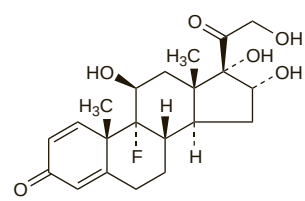
Триамцинолон

$C_{21}H_{27}FO_6$ = 394.4.

CAS — 124-94-7.

ATC — A01AC01; D07AB09; H02AB08; R01AD11; R03BA06; S01BA05.

ATC Vet — QA01AC01; QD07AB09; QD07XB02; QH02AB08; QR01AD11; QR03BA06; QS01BA05.



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

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

USP 31 (Triamcinolone). A white or practically white, odourless, crystalline powder. Very slightly soluble in water, in chloroform, and in ether; slightly soluble in alcohol and in methyl alcohol.

Triamcinolone Acetonide *(BANM, rINNM)* ⊗

Acetónido de triamcinolona; Triamcinolon acetonid; Triamcinolonacetonid; Triamcinolone, acétonide de; Triamcinoloni acetonidum; Triamcinolono acetonidas; Triamcynolonu acetonid; Triamsinolon Asetonid; Triamsinoloniasetonidi. 9α-Fluoro-11β,21-dihydroxy-16α,17α-isopropylidenedioxypregna-1,4-diene-3,20-dione.

Триамцинолона Ацетонид

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

CAS — 76-25-5.

ATC — A01AC01; D07AB09; H02AB08; R01AD11; R03BA06; S01BA05.

ATC Vet — QA01AC01; QD07AB09; QH02AB08; QR01AD11; QR03BA06; QS01BA05.

Pharmacopoeias. In *Chin.*, *Eur.* (see p.vii), *Jpn*, and *US.*
Chin. also includes Triamcinolone Acetonide Acetate.

Ph. Eur. 6.2 (Triamcinolone Acetonide). A white or almost white, crystalline powder. It shows polymorphism. Practically insoluble in water; sparingly soluble in alcohol. Protect from light.

USP 31 (Triamcinolone Acetonide). A white to cream-coloured crystalline powder, having not more than a slight odour. Practically insoluble in water; sparingly soluble in dehydrated alcohol, in chloroform, and in methyl alcohol. Store at a temperature of 25°, excursions permitted between 15° and 30°.

Triamcinolone Acetonide Sodium Phosphate *(BANM, USAN, rINNM)* ⊗

CL-61965; CL-106359; Fosfato de sodio del acetónido de triamcinolona; Triamcinolone Acétonide, Phosphate Sodique de; Triamcinoloni Acetonidi Natrici Phosphas. Triamcinolone acetonide 21-disodium phosphate.

Триамцинолона Ацетонида Натрия Фосфат

$C_{24}H_{30}FNa_2O_9P$ = 558.4.

CAS — 1997-15-5.

ATC — A01AC01; D07AB09; H02AB08; R01AD11; R03BA06; S01BA05.

ATC Vet — QA01AC01; QD07AB09; QH02AB08; QR01AD11; QR03BA06; QS01BA05.

Triamcinolone Diacetate *(BANM, rINNM)* ⊗

Diacetato de triamcinolona; Triamcinolone, Diacetate de; Triamcinoloni Diacetas. Triamcinolone 16α,21-diacetate.

Триамцинолона Диацетат

$C_{25}H_{31}FO_8$ = 478.5.

CAS — 67-78-7.

ATC — A01AC01; D07AB09; H02AB08; R01AD11; R03BA06; S01BA05.

ATC Vet — QA01AC01; QD07AB09; QH02AB08; QR01AD11; QR03BA06; QS01BA05.

Pharmacopoeias. In *US.*

USP 31 (Triamcinolone Diacetate). A fine, white to off-white, crystalline powder, having not more than a slight odour. Practically insoluble in water; soluble 1 in 13 of alcohol, 1 in 80 of chloroform, and 1 in 40 of methyl alcohol; slightly soluble in ether.

Triamcinolone Hexacetonide *(BAN, USAN, rINN)* ⊗

CL-34433; Hexacetónido de triamcinolona; TATBA; Triamcinolone Acetonide 21-(3,3-Dimethylbutyrate); Triamcinolone, hexacétonide de; Triamcinolonhexacetonid; Triamcinolon-hexacetonid; Triamcinoloni hexacetonidum; Triamcinolono heksacetonidas; Triamsinoloniheksasetonidi. 9α-Fluoro-11β,21-dihydroxy-16α,17α-isopropylidenedioxypregna-1,4-diene-3,20-dione 21-(3,3-dimethylbutyrate).

Триамцинолона Гексацетонид

$C_{30}H_{41}FO_7$ = 532.6.

CAS — 5611-51-8.

ATC — A01AC01; D07AB09; H02AB08; R01AD11; R03BA06; S01BA05.

ATC Vet — QA01AC01; QD07AB09; QH02AB08; QR01AD11; QR03BA06; QS01BA05.

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

Ph. Eur. 6.2 (Triamcinolone Hexacetonide). A white or almost white, crystalline powder. Practically insoluble in water; sparingly soluble in dehydrated alcohol and in methyl alcohol. Protect from light.

USP 31 (Triamcinolone Hexacetonide). A white to cream-coloured powder. Practically insoluble in water; soluble in chloroform; slightly soluble in methyl alcohol.

Adverse Effects, Treatment, Withdrawal, and Precautions

As for corticosteroids in general (see p.1490). High doses of triamcinolone may have a greater tendency to produce proximal myopathy. Its effects on sodium and water retention are less than those of prednisolone.

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.

Effects on the eye. For complications and precautions associated with intravitreal use of triamcinolone see under Eye Disorders, below.

Hypersensitivity. Local reactions to topical triamcinolone preparations have been attributed to the content of ethylenediamine.[1,2] However, there have also been reports of anaphylactic shock after intra-articular[3] or intramuscular[4] injection of triamcinolone acetonide.

1. Wright S, Harman RRM. Ethylenediamine and piperazine sensitivity. *BMJ* 1983; **287:** 463–4.
2. Freeman S. Allergy to Kenacomb cream. *Med J Aust* 1986; **145:** 361.
3. Larsson L. Anaphylactic shock after ia administration of triamcinolone acetonide in a 35-year-old female. *Scand J Rheumatol* 1989; **18:** 441–2.
4. Gonzalo FE, *et al.* Anaphylactic shock caused by triamcinolone acetonide. *Ann Pharmacother* 1994; **28:** 1310.

Pharmacokinetics

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

Triamcinolone is reported to have a half-life in plasma of about 2 to over 5 hours. It is bound to plasma albumin to a much smaller extent than hydrocortisone.

The acetonide, diacetate, and hexacetonide esters of triamcinolone are only very slowly absorbed from injection sites.

Triamcinolone crosses the placenta.

◊ References to the pharmacokinetics of triamcinolone and its esters.

1. Möllmann H, *et al*. Pharmacokinetics of triamcinolone acetonide and its phosphate ester. *Eur J Clin Pharmacol* 1985; **29:** 85–9.
2. Derendorf H, *et al*.. Pharmacokinetics and pharmacodynamics of glucocorticoid suspensions after intra-articular administration. *Clin Pharmacol Ther* 1986; **39:** 313–17.
3. Derendorf H, *et al*. Pharmacokinetics of triamcinolone acetonide after intravenous, oral, and inhaled administration. *J Clin Pharmacol* 1995; **35:** 302–5.
4. Argenti D, *et al.* A mass balance study to evaluate the biotransformation and excretion of [C]-triamcinolone acetonide following oral administration. *J Clin Pharmacol* 2000; **40:** 770–80.

Uses and Administration

Triamcinolone is a corticosteroid with mainly glucocorticoid activity (p.1490); 4 mg of triamcinolone is equivalent in anti-inflammatory activity to about 5 mg of prednisolone. It is 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 (see p.1495), except adrenocortical insufficiency for which hydrocortisone with supplementary fludrocortisone is preferred.

For **oral dosage** triamcinolone is used in doses ranging from 4 to 48 mg daily.

For **parenteral use** the acetonide or diacetate esters are given in doses of about 40 mg by intramuscular injection. They are usually given as suspensions to provide a prolonged systemic effect. A dose of 40 to 100 mg of the acetonide may provide symptomatic control throughout the pollen season for hay fever sufferers (but see Rhinitis, below); for the diacetate, a 40-mg dose is given weekly.

For **intra-articular injection** triamcinolone acetonide, diacetate, and hexacetonide have all been used. Doses for these esters have typically been in the range of 2.5 to 40 mg, 3 to 48 mg, and 2 to 30 mg respectively, depending upon the size of the joint injected.

For **topical application** in the treatment of various skin disorders triamcinolone acetonide is used, usually in creams, lotions, or ointments containing 0.1% although concentrations ranging from 0.025 to 0.5% have been employed. Several topical preparations also contain an antimicrobial drug. 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.

Triamcinolone esters are also commonly used by **intralesional** or **intradermal injection** in the treatment of some inflammatory skin disorders such as keloids. Suggested doses for the various esters have been:

- acetonide: 1 to 3 mg per site with no more than 5 mg injected into any one site or not more than 30 mg in total if several sites of injection are used
- diacetate: a total of 5 mg in divided doses into small lesions or up to a total of 48 mg in divided doses into large lesions with no more than 12.5 mg injected into any one site or 25 mg injected into any one lesion
- hexacetonide: up to 500 micrograms per square inch (about 80 micrograms/cm^2) of affected skin.

Triamcinolone acetonide is also used **by inhalation** for the control of asthma in a usual dose of about 150 micrograms by metered-dose inhaler three or four times daily, or 300 micrograms twice daily; the dose should not exceed 1200 micrograms daily. Children aged 6 to 12 years may be given 75 or 150 micrograms three or four times daily, or 150 to 300 micrograms twice daily; the daily dose should not exceed 900 micrograms.

In the prophylaxis and treatment of allergic rhinitis triamcinolone acetonide may be given by a **nasal spray** in a usual initial dose of 2 sprays (110 micrograms) into each nostril once daily, reduced to 1 spray (55 micrograms) when control is achieved. Children aged 6 to 12 years may be given 1 spray (55 micrograms) into each nostril once daily; in severe symptoms this may be increased to 220 micrograms daily.

A preservative-free suspension of triamcinolone acetonide 40 mg/mL is available for **intravitreal injection**. A dose of 4 mg is used for the treatment of sympathetic ophthalmia, temporal arteritis, uveitis, and ocular inflammatory conditions that are unresponsive to topical corticosteroids. Further doses may be given as needed during the course of treatment. A dose of 1 to 4 mg may be used for visualisation during vitrectomy.

Other esters of triamcinolone that have occasionally been used include the acetonide dipotassium phosphate, acetonide hemisuccinate, aminobenzal benzamidoisobutyrate, and benetonide. Flupamesone (triamcinolone acetonide metembonate) has also been used.

Asthma. Intramuscular triamcinolone acetonide has been reported to be more effective than oral low-dose prednisone in controlling exacerbations in patients with severe, chronic, life-threatening asthma,[1] although this conclusion is controversial.[2-7]

Corticosteroids and beta$_2$-adrenoceptor agonists form the cornerstone of the management of asthma (p.1108). Inhaled corticosteroids are added to therapy with a short-acting beta$_2$ agonist if symptom relief with the latter is needed more than once daily, although corticosteroids with reduced systemic activity are generally preferred to triamcinolone. Systemic corticosteroids are reserved for the most severe cases, and for the management of acute severe asthma attacks (status asthmaticus).

1. Ogirala RG, *et al.* High-dose intramuscular triamcinolone in severe, chronic, life-threatening asthma. *N Engl J Med* 1991; **324:** 589–9. Correction. *ibid.*; 1380.
2. Salmeron S, *et al.* Intramuscular triamcinolone in severe asthma. *N Engl J Med* 1991; **325:** 429–30.
3. Nicholas SS. Intramuscular triamcinolone in severe asthma. *N Engl J Med* 1991; **325:** 430.
4. Kidney JC, *et al.* Intramuscular triamcinolone in severe asthma. *N Engl J Med* 1991; **325:** 430.
5. Capewell S, McLeod DT. Intramuscular triamcinolone in severe asthma. *N Engl J Med* 1991; **325:** 430.
6. Ogirala RG, *et al.* Intramuscular triamcinolone in severe asthma. *N Engl J Med* 1991; **325:** 431.
7. Capewell S, McLeod D. Injected corticosteroids in refractory asthma. *Lancet* 1991; **338:** 1075–6.

Chronic obstructive pulmonary disease. For discussion of the value of inhaled corticosteroids in chronic obstructive pulmonary disease, including reference to the use of triamcinolone acetonide, see p.1501.

Eye disorders. Intravitreal injection of triamcinolone acetonide has been tried in the management of eye disorders characterised by oedema and the abnormal proliferation of intra-ocular cells. Promising results have been reported in diabetic macular oedema,[1,2] cystoid macular oedema, and oedema associated with retinal vein occlusion.[2-5] It has also been used in age-related macular degeneration (p.785; better results being seen when it is combined with photodynamic therapy), in proliferative diabetic retinopathy, and in the management of some forms of cataract and non-infectious uveitis.[2,3] Complications of treatment may include raised intra-ocular pressure (IOP)[6] and both infectious and non-infectious endophthalmitis.[2] Patients with a baseline IOP greater than 16 mmHg or receiving a second injection should be carefully monitored, as they may be at greater risk of an increase; monitoring should continue beyond 6 months.[6]

Dissolved drugs are not retained in the eye for prolonged periods, and early studies and off-label treatment have used injectable suspensions to achieve long-lasting concentrations of triamcinolone in the vitreous body.[7] However, these commercial products were intended for intramuscular and intra-articular use and not licensed for intravitreal injection, and there has been concern about the potential ocular toxicity of their preservative, benzyl alcohol.[2,7] Various techniques, such as sedimentation, centrifugation, and filtration, have been used extemporaneously to reduce the benzyl alcohol content of such products, but the quantity of triamcinolone in the final preparation may be altered depending on the technique used.[8] More recently, a preservative-free product has been licensed in the USA for intravitreal use (*Triesence; Alcon, USA*—see Uses and Administration, above).

1. Ip MS. Intravitreal injection of triamcinolone: an emerging treatment for diabetic macular edema. *Diabetes Care* 2004; **27:** 1794–7.
2. Jonas JB. Intravitreal triamcinolone acetonide for treatment of intraocular oedematous and neovascular diseases. *Acta Ophthalmol Scand* 2005; **83:** 645–63.
3. van Kooij B, *et al.* The pros and cons of intravitreal triamcinolone injections for uveitis and inflammatory cystoid macular edema. *Ocul Immunol Inflamm* 2006; **14:** 73–85.
4. Jonas JB. Intravitreal triamcinolone acetonide: a change in a paradigm. *Ophthalmic Res* 2006; **38:** 218–45.
5. Sivaprasad S, *et al.* Intravitreal steroids in the management of macular oedema. *Acta Ophthalmol Scand* 2006; **84:** 722–33.
6. Rhee DJ, *et al.* Intraocular pressure alterations following intravitreal triamcinolone acetonide. *Br J Ophthalmol* 2006; **90:** 999–1003.
7. Jonas JB. Effects of triamcinolone acetonide injections with and without preservative. *Br J Ophthalmol* 2007; **91:** 1099–1101.
8. García-Arumí J, *et al.* Comparison of different techniques for purification of triamcinolone acetonide suspension for intravitreal use. *Br J Ophthalmol* 2005; **89:** 1112–14.

Haemangioma. For reference to the use of a mixture of triamcinolone and betamethasone for intralesional injection of haemangioma, see p.1505.

Rhinitis. Triamcinolone is used[1,2] in the management of allergic rhinitis (p.565). However, the use of depot injections of triamcinolone to manage seasonal allergic rhinitis has been deemed unacceptable by some.[3]

1. Jeal W, Faulds D. Triamcinolone acetonide: a review of its pharmacological properties and therapeutic efficacy in the management of allergic rhinitis. *Drugs* 1997; **53:** 257–80.
2. Gawchik SM, Saccar CL. A risk-benefit assessment of intranasal triamcinolone acetonide in allergic rhinitis. *Drug Safety* 2000; **23:** 309–22.
3. Anonymous. Any place for depot triamcinolone in hay fever? *Drug Ther Bull* 1999; **37:** 17–18.

Preparations

BP 2008: Triamcinolone Acetonide Injection; Triamcinolone Cream; Triamcinolone Hexacetonide Injection; Triamcinolone Ointment; Triamcinolone Oromucosal Paste; Triamcinolone Tablets;

USP 31: Neomycin Sulfate and Triamcinolone Acetonide Cream; Neomycin Sulfate and Triamcinolone Acetonide Ophthalmic Ointment; Nystatin and Triamcinolone Acetonide Cream; Nystatin and Triamcinolone Acetonide Ointment; Nystatin, Neomycin Sulfate, Gramicidin, and Triamcinolone Acetonide Cream; Nystatin, Neomycin Sulfate, Gramicidin, and Triamcinolone Acetonide Ointment; Triamcinolone Acetonide Cream; Triamcinolone Acetonide Dental Paste; Triamcinolone Acetonide Injectable Suspension; Triamcinolone Acetonide Lotion; Triamcinolone Acetonide Ointment; Triamcinolone Acetonide Topical Aerosol; Triamcinolone Diacetate Injectable Suspension; Triamcinolone Diacetate Syrup; Triamcinolone Hexacetonide Injectable Suspension; Triamcinolone Tablets.

Proprietary Preparations (details are given in Part 3)

Arg.: Fortcinolona; Glytop; Kenacort; Kenacort-A; Ledercort; Nasacort; Rezamid D, Rezamid F, Rezamid M†; Triamciterap; Triampoen; ***Austral.:*** Aristocort; Kenacort-A; Kenalog in Orabase; Telnase; Tricortone; ***Austria:*** Delphicort; Nasacort; Solu-Volon A; Triamhexal; Volon; Volon A; ***Belg.:*** Albicort; Delphi; Kenacort-A; Kenacort†; Ledercort†; ***Braz.:*** Airclin; Azmacort; Nasacort; Omcilon A Orabase; Theracort; Triancil; ***Canad.:*** Aristocort; Aristospan; Kenalog; Kenalog in Orabase; Nasacort; Oracort; Triaderm; ***Chile:*** Kenacort-A; Nasacort; ***Cz.:*** Azmacort†; Kenalog†; Nasacort; Triamcinolon-Ivax; ***Denm.:*** Kenalog; Lederspan; Nasacort; ***Fin.:*** Aftab; Kenacort-T; Lederspan; Nasacort; ***Fr.:*** Hexatrione; Kenacort; Nasacort; ***Ger.:*** Aftab; Arutrin†; Berlicort†; Delphicort; Delphimix†; Kenalog†; Kortikoidratiopharm; Lederlon; Linola Cort Triam; Nasacort; Rhinisan; Triam; Triam-Creme; Triamgalen; Triamhexal; TriamSalbe; Volon; Volon A; Volonimat; Volonimat N; ***Gr.:*** Forlion; Kenacort-A; Nasacort; Nasatrim; Triamcinal; ***Hong Kong:*** Aftach; Aristo; Aristocort†; Denkacort†; Dermacort; Kemzid†; Kenacort-A; Kenalog in Orabase; Nasacort; Triam; ***Hung.:*** Ftorocort; Kenalog; Polcortolone; ***India:*** Kenacort; Ledercort; Tess; Tricort; ***Indon.:*** Flamicort; Kenacort; Kenacort-A; Kenalog in Orabase; Ketricin; Nasacort; Triamcort; Tridez; Trilac; Trinolon; ***Irl.:*** Adcortyl; Adcortyl in Orabase; Kenalog; Nasacort; ***Israel:*** Adcortyl†; Kenalog in Orabase†; Kenalog†; Oracort; Sterocort; Steronase Aq; ***Ital.:*** Aftab; Ipercortis; Kenacort; Ledercort†; Nasacort; Triacort; Triamvirgi; ***Jpn:*** Aftach; ***Malaysia:*** Dermacort; Kenacort-A†; Kenaderm†; Kenalog in Orabase; Metoral; Nasacort AQ; Orrepaste; Shincort; Tramsone; Trim†; ***Mex.:*** Azucort; Intralon; Kenacort; Kenalog

Dental; Nasacort; Triamsicort; Zamacort; ***Neth.:*** Albicort†; Kenacort-A; Nasacort; ***Norw.:*** Kenacort-T; Lederspan; Nasacort; ***NZ:*** Aristocort; Kenacort-A; Kenalog in Orabase; Oracort; Telnase; ***Philipp.:*** Kenacort; Kenacort-A; ***Pol.:*** Polcortolon; ***Port.:*** Aftach; ***Rus.:*** Berlicort (Берликорт); Ftorocort (Фторокорт); Kenalog (Кеналог); Polcortolon (Полькортолон); Polcortolon TC (Полькортолон ТС); Triacort (Триакорт); ***S.Afr.:*** Kenalog in Orabase; Nasacor; ***Singapore:*** Dermacort; Kemzid†; Kenacort-A; Kenalog in Orabase; Nasacort; Oramedy; Orrepaste; Shincort; Triam†; Trinolone; ***Spain:*** Flutenal; Kenalog in Orabase; Nasacort; Proctosteroid; Trigon Depot; ***Swed.:*** Kenacort-T; Lederspan; Nasacort; ***Switz.:*** Kenacort; Kenacort-A; Kenacort-A Solubile; Ledercort†; Nasacort; Triamcort; ***Thai.:*** Aristocort; Centocort; Facort; Ftorocort; Generlog; Kanolone; Kela; Kemzid; Kena-Lite; Kenacort; Kenalog in Orabase; Keno; Laver; Manolone; Metoral; Milanolone; Nasacort; Oral-T; Oralog; Orcilone; Risto; Shincort; Simacort; T-1; TA Osoth; Tacinol; Topilone; Tramsilone; Triama†; Trilosil†; Trim; Unif; V-Nolone; Vacinolone; Zyno; ***Turk.:*** Kenacort-A; Nasacort; Sinakort-A; ***UK:*** Adcortyl; Adcortyl in Orabase; Kenalog; Nasacort; ***USA:*** Amcort†; Aristocort†; Aristospan; Atolone; Azmacort; Delta-Tritex†; Flutex; Kenalog; Kenalog in Orabase; Kenonel; Nasacort; Oralone Dental; Tac; Tri-Kort; Tri-Nasal; Triacet; Triam-A; Triam†; Triamonide; Triderm; Triesence; Trilog; Trilone†; ***Venez.:*** Kenacort; Nasacort.

Multi-ingredient: ***Arg.:*** Bagovit A Plus; Biotaer Nasal; Domtisona†; Exfolium†; Kenacomb; Ledercort con Neomicina†; Mantus; Rezamid†; Sorsis; ***Austral.:*** Kenacomb; Otocomb Otic; ***Austria:*** Aureocort; Ledermix; Mycostatin V; Neo-Delphicort; Pevisone; Steros-Anal; Volon A antibiotikahaltig; Volon A Tinktur; Volon A-Zinklotion; ***Belg.:*** Mycolog; Pevisone; Trianal; ***Braz.:*** Londerm-N; Mud; Neolon-D; Omcilon A M; Onciplus; ***Canad.:*** Kenacomb†; ratio-Triacomb; Triacomb†; Viaderm-KC; ***Cz.:*** Triaderm; Triamcinolon Compositum†; Triamcinolon E; Triamcinolon S; Triamcinolon-Galena†; Triamcinolon-Ivax; ***Denm.:*** Kenacutan; Kenalog Comp med Mycostatin; Kenalog med Salicylsyre; Ledermix†; Pevisone; ***Fin.:*** Pevisone; ***Fr.:*** Cidermex; Corticotulle Lumiere†; Kenalcol; Localone; Mycolog†; Pevisone; ***Ger.:*** Aureodelf†; Corticotulle Lumiere†; Epipevisone; Extracort Tinktur†; Ledermix; Moronal V; Mykoproct sine; Polcortolon TC; Steros-Anal†; Volon A antibiotikahaltig N†; Volon A Tinktur N; Volon A-Rhin†; Volon A-Schuttelmix; Volonimat Plus N; ***Gr.:*** Kenacomb; Olamyc; Pevison; ***Hong Kong:*** Anso; Clotrinolon; Kenacomb; Oragesic; Pevisone; Tri-Gel; Triacomb; Triconazole; Triditol-G; ***Hung.:*** Alkcema; Polcortolon TC; ***India:*** Kenacomb; Kenalog-S; Ledercort-N; ***Indon.:*** Kenantist; New Kenacomb; ***Irl.:*** Audicort†; Kenacomb; ***Israel:*** Dermacombin; Kenacomb†; Ledermix; Oracort E; Pevisone; ***Ital.:*** Assocort; Aureocort; Dirahist; Kataval; Pevisone; ***Malaysia:*** Ecocort; Econazine; Kenacomb; Oral-Aid; Pevisone†; ***Mex.:*** Bidrozil; Biotriamin; Kenacomb; ***Neth.:*** Albicort Compositum†; Mycolog; Trianal; Will-Anal; ***Norw.:*** Kenacort-T comp; Kenacutan; Pevisone; ***NZ:*** Kenacomb; Viaderm-KC; ***Philipp.:*** Kenacomb; Nizolex; Pevisone; ***Pol.:*** Pevisone; Polcortolon TC; Triacomb; ***Port.:*** Kenacomb; Localone; Pevisone; ***S.Afr.:*** Kenacomb; Pevisone; Trialone; ***Singapore:*** Ecocort; Econazine; Kenacomb†; Oral-Aid; Pevisone†; ***Spain:*** Aldo Otico†; Aldoderma; Anasilpiel; Anso; Cemalyt; Cremsol; Flutenal Gentamicina; Flutenal Sali; Interderm; Nesfare; Positon; Trigon Rectal; Trigon Topico; ***Swed.:*** Kenacombin Novum; Kenacort-T comp; Kenacutan; Pevisone; ***Switz.:*** Kenacort-A; Ledermix; Mycolog†; Pevisone; ***Thai.:*** Dermacombin; Ecocort; Ecoderm; Fungisil-T; KA-Cilone; Kelaplus; Kenacomb; Pevisone†; Tara-Plus; Timi; Tricozole; Trimicon; ***UAE:*** Panderm; ***UK:*** Audicort†; Aureocort; Ledermix; Tri-Adcortyl; ***USA:*** Myco-Biotic II; Myco-Triacet II; Mycogen II; Mycolog-II; Myconel; Mytrex†; NGT; Tri-Statin II; ***Venez.:*** Kenacomb; Kenalog.

Ulobetasol Propionate *(rINNM)* ⊗

BMY-30056; CGP-14458; 6-α-Fluoroclobetasol Propionate; Halobetasol Propionate *(USAN)*; Propionato de ulobetasol; Ulobétasol, Propionate d'; Ulobetasoli Propionas. 21-Chloro-6α,9-difluoro-11β,17-dihydroxy-16β-methylpregna-1,4-diene-3,20-dione 17-propionate.

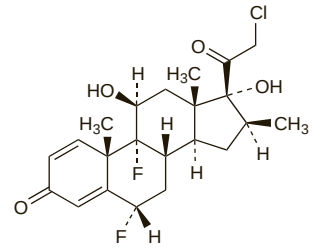
Улобетазола Пропионат

$C_{25}H_{31}ClF_2O_5$ = 485.0.

CAS — 98651-66-2 (ulobetasol); 66852-54-8 (ulobetasol propionate).

ATC — D07AC21.

ATC Vet — QD07AC21.



(ulobetasol)

Profile

Ulobetasol propionate is a corticosteroid that is 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

Proprietary Preparations (details are given in Part 3)
Canad.: Ultravate; ***USA:*** Ultravate.