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

Acetato de fluorometolona; Fluorométholone, Acétate de; Fluorometholoni Acetas; Fluorometolon Asetat; U-17323. Fluorometholone 17-acetate.

Флуорометолона Ацетат

$C_{24}H_{31}FO_5$ = 418.5.

CAS — 3801-06-7.

ATC — C05AA06; D07AB06; S01BA07.

ATC Vet — QC05AA06; QD07AB06; QS01BA07.

Pharmacopoeias. In *US*.

USP 31 (Fluorometholone Acetate).

Profile

Fluorometholone is a corticosteroid used for its glucocorticoid activity (p.1490), usually as eye drops containing 0.1%, in the treatment of allergic and inflammatory conditions of the eye. Fluorometholone acetate is used similarly.

Fluorometholone is also used topically in the treatment of various skin disorders.

Prolonged use of ophthalmic preparations containing corticosteroids has caused raised intra-ocular pressure and reduced visual function. 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.

Preparations

BP 2008: Fluorometholone Eye Drops;
USP 31: Fluorometholone Cream; Fluorometholone Ophthalmic Suspension; Neomycin Sulfate and Fluorometholone Ointment; Tobramycin and Fluorometholone Acetate Ophthalmic Suspension.

Proprietary Preparations (details are given in Part 3)
Arg.: Flarex; FML; ***Austral.:*** Flarex; Flucon; FML; ***Austria:*** Flarex†; ***Belg.:*** Fluacort; Flucon; FML; ***Braz.:*** Florate; Flumex; Flutinol; ***Canad.:*** Flarex; FML; ***Chile:*** Aflarex; Fluforte; ***Cz.:*** Efflumidex; Flarex; Flucon; Flumetol S†; Fluoropos; ***Denm.:*** Flurolon; ***Fin.:*** FML; ***Fr.:*** Flucon; ***Ger.:*** Efflumidex; Fluoro-Ophtal; Fluoropos; Isopto Flucon†; ***Gr.:*** Flucon; Fluxinam; FML; Talirax†; ***Hong Kong:*** Flarex; Flucon; Flumetholon; FML; ***Hung.:*** Efflumidex; Flarex; Flucon; ***India:*** Flomex; Flosef; ***Indon.:*** Flumetholon; ***Irl.:*** FML; ***Israel:*** Flarex; FML; ***Ital.:*** Flarex; Fluaton; Flumetol; Flumetol Semplice†; ***Malaysia:*** Flarex; FML†; ***Mex.:*** Flarex; Fluforte; Flumetol NF; ***Neth.:*** Flarex; FML; ***NZ:*** Flarex†; Flucon; FML; ***Philipp.:*** Flarex; Flulon; FML; ***Pol.:*** Flarex; Flucon; ***Port.:*** Flurop; FML; ***Rus.:*** Flarex (Флаpекс); ***S.Afr.:*** Flucon; FML; ***Singapore:*** FML; ***Spain:*** FML; Isopto Flucon; ***Switz.:*** FML; ***Thai.:*** Flarex; Flu Oph; Flucon; FML; ***Turk.:*** Flarex; FML; ***UK:*** FML; ***USA:*** Eflone; Flarex; Fluor-Op†; FML; ***Venez.:*** Aflarex; Flumetol.

Multi-ingredient: ***Arg.:*** Delisan; Efemolina; FML Neo; Larsimal; Nesbiler†; ***Belg.:*** Infectoflam; ***Braz.:*** Flumex N; ***Chile:*** Fluforte N†; ***Cz.:*** Infectoflam†; ***Ger.:*** Cibaflam; Efemolin; Efflumycin†; ***Gr.:*** Efemoline; FML Neo; Indocort†; Luzin; ***Hong Kong:*** Efemoline; ***India:*** Flomex N; ***Ital.:*** Efemoline; Flumeciclina; Flumetol Antibiotico†; Flumezina; Gentacort; ***Malaysia:*** Efemoline†; Infectoflam†; ***Mex.:*** Fluforte N; Fluorometil; ***Philipp.:*** Efemoline; Infectoflam; ***Port.:*** FML Neo; Neo-Preocil; ***S.Afr.:*** Efemoline; FML Neo; ***Singapore:*** Efemoline; Infectoflam; ***Spain:*** Bexicortil; Cortisdin Urea; Flugen; Fluorvas; ***Switz.:*** Efemoline; FML Neo; Infectoflam; ***Thai.:*** Efemoline; FML Neo†; Infectoflam; ***Turk.:*** Efemoline; Flumetol; ***USA:*** FML-S.

Fluprednidene Acetate *(BANM, rINNM)* ⊗

Acetato de fluprednideno; Fluprednidène, Acétate de; Fluprednideni Acetas; Fluprednylidene 21-Acetate. 9α-Fluoro-11β,17α,21-trihydroxy-16-methylenepregna-1,4-diene-3,20-dione 21-acetate.

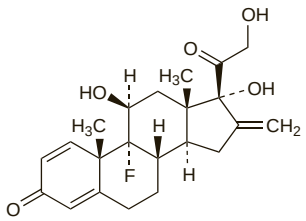
Флупреднидена Ацетат

$C_{24}H_{29}FO_6$ = 432.5.

CAS — 2193-87-5 (fluprednidene); 1255-35-2 (fluprednidene acetate).

ATC — D07AB07.

ATC Vet — QD07AB07.



(fluprednidene)

Profile

Fluprednidene 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 0.1% cream, or as an ointment containing 0.05% or 0.1%.

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 (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)
Austria: Decoderm; ***Belg.:*** Decoderm; ***Ger.:*** Decoderm; ***Indon.:*** Decoderm; ***Port.:*** Crinohermal; ***Swed.:*** Corticoderm†; ***Switz.:*** Decoderm.

Multi-ingredient: ***Arg.:*** Tri-Emcortina†; ***Austria:*** Decoderm Compositum; Decoderm trivalent; ***Belg.:*** Decoderm Compositum; ***Braz.:*** Emecort†; Pan-Emecort†; ***Ger.:*** Candio-Hermal Plus; Crinohermal fem; Decoderm Comp; Decoderm tri; Sali-Decoderm; Vobaderm; ***Gr.:*** Antimycotic; Catrigel; Combi; Conazol; Domycotin; Edmudo; Expectein; Feminella; Finicort; Flenazole; Fluniprol; Flunovon; Fosemyk; Fumicon; Micoflup; Micogen; Mifler; Oxigon; Panderm; Panmyk; Sarmel; Verdal; ***Indon.:*** Decoderm 3; Gentacortin; ***Switz.:*** Decoderm bivalent; ***Thai.:*** Supracortin 3†; ***UK:*** Acorvio Plus.

Fluticasone *(BAN, rINN)* ⊗

Fluticasona; Fluticasonum. *S*-(Fluoromethyl) 6α,9-difluoro-11β,17-dihydroxy-16α-methyl-3-oxoandrosta-1,4-diene-17β-carbothioate.

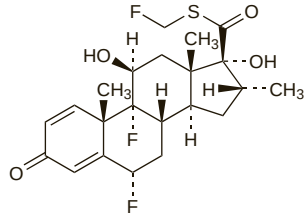
Флутиказон

$C_{22}H_{27}F_3O_4S$ = 444.5.

CAS — 90566-53-3.

ATC — D07AC17; R01AD08; R03BA05.

ATC Vet — QD07AC17; QR01AD08; QR03BA05.



Fluticasone Furoate *(BANM, USAN, rINN)* ⊗

Fluticasonum Furoas; Furoate de Fluticasone; Furoato de Fluticasona; GW-685698X. 6α,9-Difluoro-17-{[(fluoromethyl)sulfanyl]carbonyl}-11β-hydroxy-16α-methyl-3-oxoandrosta-1,4-dien-17α-yl furan-2-carboxylate.

Флутиказон Фуроат

$C_{27}H_{29}F_3O_6S$ = 538.6.

CAS — 397864-44-7.

ATC — D07AC17; R01AD08; R01AD12; R03BA05.

ATC Vet — QD07AC17; QR01AD08; QR01AD12; QR03BA05.

Fluticasone Propionate *(BANM, USAN, rINNM)* ⊗

CCI-18781; Fluticasone, propionate de; Fluticasoni propionas; Flutikasonipropionaatti; Flutikasonpropionat; Flutikason-propionát; Flutikazon Propiyonat; Flutikazono propionatas; Propionato de fluticasona. *S*-Fluoromethyl 6α,9α-difluoro-11β,17α-dihydroxy-16α-methyl-3-oxoandrosta-1,4-diene-17β-carbothioate 17-propionate.

Флутиказона Пропионат

$C_{25}H_{31}F_3O_5S$ = 500.6.

CAS — 80474-14-2.

ATC — D07AC17; R01AD08; R03BA05.

ATC Vet — QD07AC17; QR01AD08; QR03BA05.

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

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

USP 31 (Fluticasone Propionate). Micronised fluticasone propionate is a fine white powder. Store in airtight containers at a temperature not exceeding 30°. Protect from light.

Adverse Effects, Treatment, Withdrawal, and Precautions

As for corticosteroids in general (see p.1490). Hypersensitivity reactions have occurred. Eosinophilic conditions, including Churg-Strauss syndrome, have been reported rarely, in most cases after a transfer from oral corticosteroid therapy.

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. Inhalation or nasal use of large amounts of fluticasone may produce systemic effects also (see below).

Adrenal suppression. Despite the fact that inhaled fluticasone is generally thought to lack systemic effects at therapeutic doses, a study in 25 healthy subjects[1] indicated that fluticasone propionate as single inhaled doses of 250, 500, and 1000 micrograms did produce a reduction in plasma cortisol, indicating suppression of the hypothalamic-pituitary-adrenal axis to some degree. Others have also found evidence of adrenal suppression with fluticasone,[2-5] particularly at high doses and in children,[6] and the effect may be more marked with repeated than with single doses.[4,6-8] A number of cases of adrenal crisis have been associated with high-dose inhaled fluticasone,[9,10] including at least one fatality.[6] It has been recommended that children using inhaled fluticasone at doses above 400 micrograms daily should have adrenal function monitoring and a written plan for emergency corticosteroid replacement therapy.[6]

1. Grahnén A, *et al.* An assessment of the systemic activity of single doses of inhaled fluticasone propionate in healthy volunteers. *Br J Clin Pharmacol* 1994; **38:** 521–5.
2. Clark DJ, *et al.* Comparative systemic bioactivity of inhaled budesonide and fluticasone propionate in asthmatic children. *Br J Clin Pharmacol* 1996; **42:** 264P.
3. Rohatagi S, *et al.* Dynamic modeling of cortisol reduction after inhaled administration of fluticasone propionate. *J Clin Pharmacol* 1996; **36:** 938–41.
4. Clark DJ, Lipworth BJ. Adrenal suppression with chronic dosing of fluticasone propionate compared with budesonide in adult asthmatic patients. *Thorax* 1997; **52:** 55–8.
5. Eid N, *et al.* Decreased morning serum cortisol levels in children with asthma treated with inhaled fluticasone propionate. *Pediatrics* 2002; **109:** 217–21.
6. Paton J, *et al.* Adrenal responses to low dose synthetic ACTH (Synacthen) in children receiving high dose inhaled fluticasone. *Arch Dis Child* 2006; **91:** 808–13.
7. Lönnebo A, *et al.* An assessment of the systemic effects of single and repeated doses of inhaled fluticasone propionate and inhaled budesonide in healthy volunteers. *Eur J Clin Pharmacol* 1996; **49:** 459–63.
8. Wilson AM, *et al.* Adrenal suppression with high doses of inhaled fluticasone propionate and triamcinolone acetonide in healthy voluteers. *Eur J Clin Pharmacol* 1997; **53:** 33–7.
9. Todd GRG, *et al.* Survey of adrenal crisis associated with inhaled corticosteroids in the United Kingdom. *Arch Dis Child* 2002; **87:** 457–61.
10. Adverse Drug Reactions Advisory Committee (ADRAC). Fluticasone and adrenal crisis. *Aust Adverse Drug React Bull* 2003; **22:** 6. Also available at: http://www.tga.health.gov.au/adr/aadrb/aadr0304.htm (accessed 06/05/04)

Aspergillosis. The fungal infection aspergillosis has been reported in patients receiving inhaled[1,2] and intranasal[3] fluticasone.

1. Fairfax AJ, *et al.* Laryngeal aspergillosis following high dose inhaled fluticasone therapy for asthma. *Thorax* 1999; **54:** 860–1.
2. Leav BA, *et al.* Invasive pulmonary aspergillosis associated with high-dose inhaled fluticasone. *N Engl J Med* 2000; **343:** 586.
3. Bratton RL, *et al.* Aspergillosis related to long-term nasal corticosteroid use. *Mayo Clin Proc* 2002; **77:** 1353–7.

Effects on the bones. For studies of the effects on bone of inhaled fluticasone, compared with beclometasone, see p.1516.

Effects on the muscles. Proximal myopathy has been reported in children receiving high-dose inhaled fluticasone;[1] the patients recovered after replacement of fluticasone with alternative corticosteroid therapy.

1. De Swert LF, *et al.* Myopathy in children receiving high-dose inhaled fluticasone. *N Engl J Med* 2004; **350:** 1157–9.

Interactions

The interactions of corticosteroids in general are described on p.1494.

Pharmacokinetics

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

Fluticasone propionate is poorly absorbed from the gastrointestinal tract and undergoes extensive first-pass metabolism; oral bioavailability is reported to be only about 1%.

◊ References.

1. Mackie AE, *et al.* Pharmacokinetics of intravenous fluticasone propionate in healthy subjects. *Br J Clin Pharmacol* 1996; **41:** 539–42.
2. van Boxtel CJ, Sheffer AL, eds. The pharmacokinetics of fluticasone propionate. *Clin Pharmacokinet* 2000; **39** (suppl): 1–54.
3. Daley-Yates PT, Baker RC. Systemic bioavailability of fluticasone propionate administered as nasal drops and aqueous nasal spray formulations. *Br J Clin Pharmacol* 2001; **51:** 103–5.
4. Allen A, *et al.* Absolute bioavailability of intranasal fluticasone furoate in healthy subjects. *Clin Ther* 2007; **29:** 1415–20.

Uses and Administration

Fluticasone is a corticosteroid with mainly glucocorticoid activity (p.1490).

Fluticasone propionate is stated to exert a topical effect on the lungs without significant systemic effects at usual doses, due to its low systemic bioavailability (but see Adrenal Suppression, above). It is used by powder or aerosol inhalation for the prophylaxis of **asthma**. Typical initial doses in the UK range from 100 to 250 micrograms twice daily in mild asthma up to 1 mg twice daily in severe asthma, adjusted according to response. Children over 4 years of age may be given initial doses of 50 to 100 micrograms twice daily, increased to 200 micrograms twice daily if necessary.

The drug may also be given via a nebuliser in severe chronic asthma. Usual adult doses are 0.5 to 2 mg twice daily. Children aged 4 to 16 years may be given 1 mg twice daily. In the USA, doses by powder inhalation are similar to that in the UK. The aerosol inhalation formulations contain 50, 125, or 250 micrograms of fluticasone propionate in each metered spray, which delivers 44, 110, or 220 micrograms, respectively from the actuator. Doses are therefore expressed in these units; dosage ranges from 88 micrograms twice daily to 880 micrograms twice daily, depending on previous therapy. Children aged 4 to 11 years are given 88 micrograms twice daily.

Fluticasone propionate is also available in some countries as a powder or aerosol inhalation for the treatment of **chronic obstructive pulmonary disease**, when it is given in doses of 500 micrograms twice daily.

Fluticasone is administered by nasal spray in the prophylaxis and treatment of **allergic rhinitis**. The usual dose of fluticasone propionate is 100 micrograms into each nostril once daily, increased if necessary to 100 micrograms into each nostril twice daily. Children over 4 years of age may be given half these doses. Fluticasone furoate is also used in the management of allergic rhinitis. This salt has enhanced affinity for the glucocorticoid receptor, and is given in a starting dose of 55 micrograms into each nostril once daily. When the maximum benefit has been achieved and symptoms controlled, the dose should be gradually reduced to the minimum effective dose; 27.5 micrograms into each nostril once daily may be sufficient to maintain control of symptoms. Children aged 2 years and over may be started on 27.5 micrograms into each nostril once daily, which may be increased to 55 micrograms into each nostril once daily if necessary to control symptoms.

Fluticasone propionate drops are used in the treatment of **nasal polyps**, 200 micrograms should be instilled into each nostril once or twice daily for at least 4 to 6 weeks.

Fluticasone propionate is applied topically in the treatment of various **skin disorders**. Creams and ointments containing 0.05% and 0.005%, respectively are available. For recommendations concerning the correct use of corticosteroids on the skin, see p.1497.

Asthma. Corticosteroids and beta$_2$-adrenoceptor agonists form the cornerstone of the management of asthma (p.1108). Patients requiring only occasional relief from symptoms may be managed with an inhaled short-acting beta$_2$ agonist, and an inhaled corticosteroid such as fluticasone is added if symptomatic relief is needed more than once daily. In more severe asthma other drugs may be added (combination with a long-acting beta$_2$ agonist may have synergistic benefits), or the dose of inhaled corticosteroid may be increased.

Some references to the use of fluticasone propionate for asthma are given below,[1-15] including one to a study indicating that increasing the dose of inhaled fluticasone did not produce increased benefit.[1]

1. Boe J, *et al.* High-dose inhaled steroids in asthmatics: moderate efficacy gain and suppression of the hypothalamic-pituitary-adrenal (HPA) axis. *Eur Respir J* 1994; **7:** 2179–84.
2. Jarvis B, Faulds D. Inhaled fluticasone propionate: a review of its therapeutic efficacy at dosages ≤ 500 micrograms/day in adults and adolescents with mild to moderate asthma. *Drugs* 1999; **57:** 769–803.
3. Bisgaard H, *et al.* The effect of inhaled fluticasone propionate in the treatment of young asthmatic children: a dose comparison study. *Am J Respir Crit Care Med* 1999; **160:** 126–31.
4. Markham A, Jarvis B. Inhaled salmeterol/fluticasone propionate combination: a review of its use in persistent asthma. *Drugs* 2000; **60:** 1207–33.
5. ZuWallack R, *et al.* Long-term efficacy and safety of fluticasone propionate powder administered once or twice daily via inhaler to patients with moderate asthma. *Chest* 2000; **118:** 303–312.
6. Holt S, *et al.* Dose-response relation of inhaled fluticasone propionate in adolescents and adults with asthma: meta-analysis. *BMJ* 2001; **323:** 253–6.
7. Purucker ME, *et al.* Inhaled fluticasone propionate by diskus in the treatment of asthma: a comparison of the efficacy of the same nominal dose given either once or twice a day. *Chest* 2003; **124:** 1584–93.
8. Masoli M, *et al.* Clinical dose-response relationship of fluticasone propionate in adults with asthma. *Thorax* 2004; **59:** 16–20.
9. Masoli M, *et al.* Systematic review of the dose-response relation of inhaled fluticasone propionate. *Arch Dis Child* 2004; **89:** 902–7.
10. Adams NP, *et al.* Fluticasone at different doses for chronic asthma in adults and children. Available in The Cochrane Database of Systematic Reviews; Issue 3. Chichester: John Wiley; 2005 (accessed 12/05/06).
11. Adams NP, *et al.* Fluticasone versus placebo for chronic asthma in adults and children. Available in The Cochrane Database of Systematic Reviews; Issue 4. Chichester: John Wiley; 2005 (accessed 12/05/06).
12. Reynolds NA, *et al.* Inhaled salmeterol/fluticasone propionate: a review of its use in asthma. *Drugs* 2005; **65:** 1715–34.
13. Lasserson TJ, *et al.* Fluticasone versus HFA-beclomethasone dipropionate for chronic asthma in adults and children. Available in The Cochrane Database of Systematic Reviews; Issue 2. Chichester: John Wiley; 2006 (accessed 12/05/06).
14. Guilbert TW, *et al.* Long-term inhaled corticosteroids in preschool children at high risk for asthma. *N Engl J Med* 2006; **354:** 1985–97.
15. Adams N, *et al.* Fluticasone versus beclomethasone or budesonide for chronic asthma in adults and children. Available in The Cochrane Database of Systematic Reviews; Issue 4. Chichester: John Wiley; 2007 (accessed 22/08/08).

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

Reviews.

1. Fenton C, Keating GM. Inhaled salmeterol/fluticasone propionate: a review of its use in chronic obstructive pulmonary disease. *Drugs* 2004; **64:** 1975–96.
2. Keating GM, McCormack PL. Salmeterol/fluticasone propionate: a review of its use in the treatment of chronic obstructive pulmonary disease. *Drugs* 2007; **67:** 2383–2405.

Cough. A small study in children with persistent nocturnal cough compared fluticasone propionate 1 mg twice daily for 3 nights, followed by 500 micrograms twice daily for 11 nights, given by metered-dose inhaler, with placebo. Coughs reduced significantly by nights 15 and 16 in the children given the corticosteroid. However, both groups improved significantly compared to baseline, leading the authors to conclude that inhaled corticosteroids should not be given at the time of presentation of persistent nocturnal cough. If they are given, then a 2-week course of high dose corticosteroids may benefit some children.[1] In a controlled crossover study in adult patients with chronic cough, inhaled fluticasone 500 micrograms twice daily for 14 days significantly improved certain measurements of cough, although overall reduction in cough severity was modest.[2] In adults with a cough lasting more than 2 weeks, fluticasone 500 micrograms twice daily for 2 weeks decreased cough scores from day 5 onwards in non-smokers.[3]

1. Davies MJ, *et al.* Persistent nocturnal cough: randomised controlled trial of high dose inhaled corticosteroid. *Arch Dis Child* 1999; **81:** 38–44.
2. Chaudhuri R, *et al.* Effect of inhaled corticosteroids on symptom severity and sputum mediator levels in chronic persistent cough. *J Allergy Clin Immunol* 2004; **113:** 1063–70.
3. Ponsioen BP, *et al.* Efficacy of fluticasone on cough: a randomised controlled trial. *Eur Respir J* 2005; **25:** 147–52.

Eczema. In a study in patients with moderate to severe eczema (p.1579), fluticasone propionate 0.05% cream or 0.005% ointment was applied once or twice daily for 4 weeks; if eczema stabilised, either the cream, the ointment, or an emollient placebo was then applied on 2 days per week, for up to 16 weeks. Fluticasone cream reduced the risk of relapse to about one-sixth of that of placebo, whereas the ointment formulation reduced the risk to about half; median times to relapse were similar for both fluticasone formulations. The formulations were originally expected to be of similar potency.[1] Others have commented[2] that caution should be exercised in generalising these results to primary care settings where most cases of eczema are likely to be mild, and relapses infrequent.

1. Berth-Jones J, *et al.* Twice weekly fluticasone propionate added to emollient maintenance treatment to reduce risk of relapse in atopic dermatitis: randomised, double blind, parallel group study. *BMJ* 2003; **326:** 1367.
2. Williams HC. Twice-weekly topical corticosteroid therapy may reduce atopic dermatitis relapses. *Arch Dermatol* 2004; **140:** 1151–2.

Inflammatory bowel disease. Fluticasone propionate, given orally, has produced variable results in the treatment of Crohn's disease[1] and ulcerative colitis;[2,3] some benefit was also reported in coeliac disease.[4] The dose was 5 mg four times daily but some consider[2] higher doses necessary.

For a review of the management of inflammatory bowel disease, including the role of corticosteroids, see p.1697.

1. Carpani de Kaski M, *et al.* Fluticasone propionate in Crohn's disease. *Gut* 1991; **32:** 657–61.
2. Hawthorne AB, *et al.* Double blind trial of oral fluticasone propionate v prednisolone in the treatment of active ulcerative colitis. *Gut* 1993; **34:** 125–8.
3. Angus P, *et al.* Oral fluticasone propionate in active distal ulcerative colitis. *Gut* 1992; **33:** 711–14.
4. Mitchison HC, *et al.* A pilot study of fluticasone propionate in untreated coeliac disease. *Gut* 1991; **32:** 260–5.

Nasal polyps. For discussion of the value of corticosteroids in the treatment of nasal polyps, including reference to the use of fluticasone, see p.1508.

Rhinitis. For a discussion of the management of rhinitis, including the use of corticosteroids, see p.565. Some further references to the use of fluticasone in rhinitis are given below.

1. Wiseman LR, Benfield P. Intranasal fluticasone propionate: a reappraisal of its pharmacology and clinical efficacy in the treatment of rhinitis. *Drugs* 1997; **53:** 885–907.
2. McCormack PL, Scott LJ. Fluticasone furoate: intranasal use in allergic rhinitis. *Drugs* 2007; **67:** 1905–15.

Preparations

BP 2008: Fluticasone Cream; Fluticasone Nasal Spray; Fluticasone Ointment;
USP 31: Fluticasone Propionate Nasal Spray.

Proprietary Preparations (details are given in Part 3)
Arg.: Cutivate; Flixonase; Flixotide; Fluti-K; Fluticort; Lidil Cort; Proair; Rinisona; ***Austral.:*** Avamys; Beconase Allergy; Flixonase; Flixotide; ***Austria:*** Cutivate; Flixonase; Flixotide; ***Belg.:*** Cutivate; Flixonase; Flixotide; ***Braz.:*** Flixonase; Flixotide; Fluticaps; Flutivate; Plurair; ***Canad.:*** Cutivate; Flonase; Flovent; ***Chile:*** Albeoler; Brexonase; Brexovent; Flixonase; Flixotide; Flusona; Flutivate; Nebulex; Raffonin; ***Cz.:*** Alergonase; Avamys; Cutivate; Flixonase; Flixotide; Nasofan; ***Denm.:*** Cutivat; Flixonase; Flixotide; ***Fin.:*** Flixonase; Flixotide; ***Fr.:*** Flixonase; Flixotide; Flixovate; ***Ger.:*** Atemur; Flutide; Flutivate; ***Gr.:*** Alerxem; Cortixide; Dermocort; Flicazen; Flihaler; Flixocort; Flixoderm; Flixonase†; Flixotide; Flucortis; Flutinasal; Flutizal; Ybecor; ***Hong Kong:*** Cutivate; Flixonase; Flixotide; ***Hung.:*** Cutivate; Flixonase; Flixotide; Flutirin; ***India:*** Flohale; Flomist; Zoflut; ***Indon.:*** Cutivate; Flixonase; Flixotide; Medicort; ***Irl.:*** Flixonase; Flixotide; Nasofan; ***Israel:*** Allegro; Cutivate†; Flixonase; Flixotide; ***Ital.:*** Flixoderm; Flixonase; Flixotide; Fluspiral; Ticavent; ***Jpn:*** Flonase; ***Malaysia:*** Cutivate; Flixonase; Flixotide; ***Mex.:*** Cutivate; Flixonase; Flixotide; ***Neth.:*** Cutivate; Flixonase; Flixotide; Flutide; ***Norw.:*** Flutide; Flutivate; ***NZ:*** Flixonase; Flixotide; Nasaclear; ***Philipp.:*** Cutivate; Flixotide; ***Pol.:*** Cutivate; Flixonase; Flixotide; ***Port.:*** Asmatil; Asmo-Lavi; Brisovent; Cutivate; Eustidil; Flixotaide; Flutaide; Rontilona; Ubizol; ***Rus.:*** Cutivate (Кутивейт); Flixonase (Фликсоназе); Flixotide (Фликсотид); Seretide (Серетид); ***S.Afr.:*** Cutivate; Flixonase; Flixotide; Flohale DP; Flomist; ***Singapore:*** Cutivate; Flixonase; Flixotide; ***Spain:*** Drolasona†; Flixonase; Flixotide; Fluinol; Flusonal; Inalacor; Rinosone; Rontilona; Trialona; ***Swed.:*** Flutide; Flutivate; ***Switz.:*** Axotide; Cutivate; Flutinase; ***Thai.:*** Flixonase; Flixotide; ***Turk.:*** Brethal; Cutivate; Flixonase; Flixotide; ***UAE:*** Potencort; ***UK:*** Cutivate; Flixonase; Flixotide; Nasofan; ***USA:*** Cutivate; Flonase; Flovent; Veramyst; ***Venez.:*** Cutivate; Flixonase; Flixotide; Fluticort.

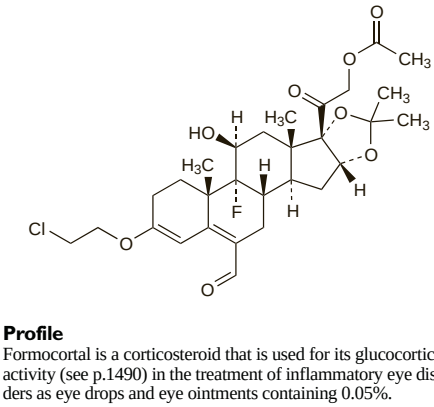
Multi-ingredient: ***Arg.:*** Flutivent; Neumotide; Seretide; ***Austral.:*** Seretide; ***Austria:*** Seretide; Viani; ***Belg.:*** Seretide; ***Braz.:*** Seretide; ***Canad.:*** Advair; ***Chile:*** Aerometrol Plus; Aurituss; Brexotide; Seretide; ***Cz.:*** Duaspir; Seretide; ***Denm.:*** Seretide; ***Fin.:*** Seretide; ***Fr.:*** Seretide; ***Ger.:*** Atmadisc; Viani; ***Gr.:*** Seretide; Viani†; ***Hong Kong:*** Seretide; ***Hung.:*** Seretide; Thoreus; ***India:*** Duonase; Forair; Seretide; Seroflo; ***Indon.:*** Seretide; ***Irl.:*** Seretide; ***Israel:*** Seretide; ***Ital.:*** Aliflus; Seretide; ***Malaysia:*** Seretide; ***Mex.:*** Seretide; ***Neth.:*** Seretide; Viani; ***Norw.:*** Seretide; ***NZ:*** Seretide; ***Philipp.:*** Seretide; ***Pol.:*** Seretide; ***Port.:*** Brisomax; Maizar; Seretaide; Veraspir; ***S.Afr.:*** Seretide; ***Singapore:*** Seretide; ***Spain:*** Anasma; Brisair; Inaladuo; Plusvent; Seretide; ***Swed.:*** Seretide; ***Switz.:*** Seretide; ***Thai.:*** Seretide; ***Turk.:*** Seretide; ***UK:*** Seretide; ***USA:*** Advair; ***Venez.:*** Seretide.

Formocortal *(BAN, USAN, rINN)* ⊗

FI-6341; Fluoroformylon; Formocortalum. 3-(2-Chloroethoxy)-9α-fluoro-11β,21-dihydroxy-16α,17α-isopropylidenedioxy-20-oxopregna-3,5-diene-6-carbaldehyde 21-acetate.

Формокортал

$C_{29}H_{38}ClFO_8$ = 569.1.
CAS — 2825-60-7.
ATC — S01BA12.
ATC Vet — QS01BA12.



Profile

Formocortal is a corticosteroid that is used for its glucocorticoid activity (see p.1490) in the treatment of inflammatory eye disorders as eye drops and eye ointments containing 0.05%.

Prolonged use of ophthalmic preparations containing corticosteroids has caused raised intra-ocular pressure and reduced visual function.

Preparations

Proprietary Preparations (details are given in Part 3)
Ital.: Formoftil.

Multi-ingredient: ***Ital.:*** Formomicin.