AUSTRALIAN PRODUCT INFORMATION

HYDROCORTISONE VIATRIS 4
HYDROCORTISONE VIATRIS 20

Hydrocortisone tablets

1 NAME OF THE MEDICINE

Hydrocortisone

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Hydrocortisone, also known as cortisol, is a white or almost white, odourless crystalline powder. It is practically insoluble in water; sparingly soluble in ethanol (96%) and in acetone; slightly soluble in chloroform; very slightly soluble in ether. It melts at about 214°C, with decomposition.

Each HYDROCORTISONE VIATRIS 4 tablet contains 4 mg of hydrocortisone.

Each HYDROCORTISONE VIATRIS 20 tablet contains 20 mg of hydrocortisone.

Excipients with known effect: sulfites and sugars as lactose

For the full list of excipients, see Section 6.1 LIST OF EXCIPIENTS.

3 PHARMACEUTICAL FORM

HYDROCORTISONE VIATRIS 4 mg tablet: white, scored, marked H/4 on one side, G on reverse

HYDROCORTISONE VIATRIS 20 mg tablet: white, scored, marked H/20 on one side, G on reverse

4 CLINICAL PARTICULARS

4.1 THERAPEUTIC INDICATIONS

Hydrocortisone is indicated for replacement therapy in Addison's disease or chronic adrenocortical insufficiency secondary to hypopituitarism.

4.2 DOSE AND METHOD OF ADMINISTRATION

Dosage requirements are variable and must be individualised on the basis of the disease and the response of the patient.

A typical dose in adults is hydrocortisone 30 mg daily in divided doses. Dosage may be increased if clinically necessary. Patients should be advised to take their hydrocortisone replacement therapy with meals or a glass of milk or antacid because the drug may increase gastric acidity. Approximately 2/3 of the dose should be taken in the morning and 1/3 at about 4pm. Some individuals may exhibit irritability or insomnia after initiation of therapy; in these the dosage should be reduced. Smaller doses may also be necessary in patients with hypertension, diabetes mellitus, or active tuberculosis.

Supplementary administration of fludrocortisone, 0.05 to 0.1 mg daily by mouth, is required to replace mineralocorticoid deficiency. Blood pressure and serum electrolyte measurements will give an indication of adequacy of mineralocorticoid dosage. Patients should be advised to ingest adequate sodium (3 to 4 g per day). The physician should be alert to complications of mineralocorticoid therapy, e.g. hypokalaemia, oedema, hypertension, cardiac enlargement, congestive heart failure.

Dosage of hydrocortisone should be increased during periods of intercurrent illness or surgery to about 75 to 150 mg/day. Fludrocortisone dosage should also be increased. Patients should be alerted to awareness of those occasions when excess sodium may be required, e.g. hot weather, gastrointestinal upsets.

After a favourable initial response, the proper maintenance dosage should be determined by decreasing the initial dosage in small amounts to the lowest dosage that maintains an adequate clinical response.

Patients should be observed closely for signs that may require dosage adjustment, including changes in clinical status resulting from remissions or exacerbations of the disease, individual drug responsiveness, and the effect of stress (e.g. surgery, infection, trauma). During stress it may be necessary to increase dosage temporarily.

If the drug is to be stopped after more than a few days of treatment, it usually should be withdrawn gradually.

4.3 CONTRAINDICATIONS

Patients with any uncontrolled infections; known hypersensitivity to hydrocortisone.

4.4 SPECIAL WARNINGS AND PRECAUTIONS FOR USE

The use of HYDROCORTISONE VIATRIS in the treatment of conditions other than those specified in the Indications section is not advised, due to the marked effect of hydrocortisone on sodium retention.

Immunosuppressant Effects/Increased Susceptibility to Infections

Corticosteroids may mask some signs of infection, and new infections may appear during their use. There may be decreased resistance and inability to localise infection when corticosteroids are used. If an infection occurs during hydrocortisone therapy, consider stopping hydrocortisone if possible. In any case, the infection should be promptly controlled by suitable antimicrobial therapy.

Individuals on immunosuppressant therapy, including hydrocortisone, should avoid exposure to infections. For example, varicella and measles can prove serious or even fatal. The administration of an appropriate immunoglobulin may be indicated in individuals exposed to these infections during corticosteroid therapy.

Patients should not be vaccinated against smallpox whilst on corticosteroid therapy. Other immunisation procedures, particularly those involving the administration of live vaccines, e.g. BCG, should not be undertaken in patients who are taking corticosteroids, especially in high doses, because of the possible risks of neurological complications and a lack of antibody response.

The use of HYDROCORTISONE VIATRIS in patients with active tuberculosis should be restricted to those cases of fulminating or disseminated tuberculosis in which the corticosteroid is used for the management of the disease in conjunction with an appropriate anti-tuberculous regimen. If corticosteroids are indicated in patients with latent tuberculosis or tuberculin reactivity, close observation is necessary since reactivation of the disease may occur. During prolonged corticosteroid therapy, these patients should receive chemoprophylaxis.

Corticosteroids should be used cautiously in patients with ocular Herpes simplex because of possible corneal perforation. The lowest possible dose of corticosteroid should be used to control the condition being treated. When possible, the dosage should be gradually reduced.

Ocular Effects

Prolonged use of corticosteroids may produce posterior subcapsular cataracts, glaucoma with possible damage to the optic nerves, and may enhance the establishment of secondary ocular infections due to fungi or viruses.

Visual disturbance may be reported with systemic and topical corticosteroid use. If a patient presents with symptoms such as blurred vision or other visual disturbances, the patient should be considered for referral to an ophthalmologist for evaluation of possible causes which may include cataract, glaucoma or rare diseases such as central serous chorioretinopathy (CSCR) which have been reported after use of systemic and topical corticosteroids.

Endocrine Effects

Average and large doses of hydrocortisone can cause elevation in blood pressure, salt and water retention, and increased potassium excretion. Therefore, both dosage and salt intake should be carefully monitored in order to avoid the development of hypertension, oedema or weight gain.

Periodic checking of serum electrolyte levels is advisable during prolonged therapy; dietary salt restriction and potassium supplementation may be necessary. All corticosteroids increase calcium excretion.

Adverse effects to corticosteroids may be produced by too rapid withdrawal or by continued use of large doses.

There is an enhanced corticosteroid effect in patients with hypothyroidism and in those with cirrhosis.

Psychiatric Effects

Psychic derangements may appear when corticosteroids are used. These may range from euphoria, insomnia, mood swings, personality changes, and severe depression to frank psychotic manifestations. Existing emotional instability or psychotic tendencies may also be aggravated by corticosteroids.

Gastrointestinal Effects

Corticosteroids should be used with caution in patients with nonspecific ulcerative colitis as there is a possibility of impending perforation, abscess, or other pyogenic infection.

Other

Aspirin should be used cautiously in conjunction with corticosteroids in patients with hypoprothrombinaemia.

Hydrocortisone should also be used cautiously in the following patients that are/have:

- post-menopausal women
- diverticulitis
- recent surgery including intestinal anastomoses
- active or latent peptic ulcer
- hypertension
- osteoporosis
- acute glomerulonephritis
- vaccinia, varicella, exanthemata
- Cushing's syndrome
- antibiotic resistant infections
- diabetes mellitus
- congestive heart failure
- chronic nephritis
- thromboembolic tendencies
- thrombophlebitis
- convulsive disorders
- metastatic carcinoma
- vertebral collapse.

Use in the Elderly

Hydrocortisone should be used cautiously in the elderly.

Paediatric Use

Growth and development of infants and children on prolonged corticosteroid therapy should be carefully observed.

Effects on Laboratory Tests

Reactions to skin tests may be suppressed.

4.5 INTERACTIONS WITH OTHER MEDICINES AND OTHER FORMS OF INTERACTIONS

Oral contraceptives may increase the half-life of corticosteroids. Barbiturates, phenytoin, rifampicin and other drugs which induce hepatic enzymes may shorten the elimination half-life of hydrocortisone.

Hydrocortisone can increase the loss of potassium. When administered concomitantly with potassium-depleting diuretics, patients should be observed closely for the development of hypokalaemia. Patients taking the combination of hydrocortisone and digoxin should also be closely monitored due to an increased sensitivity to digoxin.

4.6 FERTILITY, PREGNANCY AND LACTATION

Effects on Fertility

No data available.

Use in Pregnancy

Pregnancy Category: A

Category A: Drugs which have been taken by a large number of pregnant women and women of childbearing age without any proven increase in the frequency of malformations or other direct or indirect harmful effects on the fetus having been absorbed.

Use in Lactation

Corticosteroids appear in breast milk and could suppress growth, interfere with endogenous corticosteroid production, or cause other unwanted effects. Mothers taking pharmacological doses of corticosteroids should be advised not to nurse.

4.7 EFFECTS ON ABILITY TO DRIVE AND USE MACHINES

The effects of this medicine on a person's ability to drive and use machines were not assessed as part of its registration.

4.8 ADVERSE EFFECTS (UNDESIRABLE EFFECTS)

Fluid and electrolyte disturbances. Sodium retention, fluid retention, congestive heart failure in susceptible patients, potassium loss, hypokalaemic alkalosis, hypertension.

Musculoskeletal. Muscle weakness, steroid myopathy, loss of muscle mass, osteoporosis, vertebral compression fractures, aseptic necrosis of femoral and humeral heads, pathological fracture of long bones and spontaneous fractures, tendon rupture.

Gastrointestinal. Peptic ulcer with possible perforation and haemorrhage, perforation of the small and large bowel (particularly in patients with inflammatory bowel disease), pancreatitis, abdominal distension, ulcerative oesophagitis.

Dermatological. Impaired wound healing, thin fragile skin, bruising, petechiae and ecchymoses, facial erythema, increased sweating, subcutaneous fat atrophy, purpura, striae, hyperpigmentation of the skin and nails, hirsutism, acneform eruptions, other cutaneous reactions (such as allergic dermatitis, urticaria, angioneurotic oedema).

Neurological. Convulsions, increased intracranial pressure with papilloedema (pseudotumour cerebri) usually after treatment, vertigo, headache, severe mental disturbances.

Endocrine. Menstrual irregularities, development of cushingoid state, suppression of growth in children, secondary adrenocortical and pituitary unresponsiveness, particularly in times of stress (e.g. trauma, surgery or illness), decreased carbohydrate tolerance, manifestations of latent diabetes mellitus, increased requirements for insulin or oral hypoglycaemic agents in diabetics.

Immunological. Clinically significant infections increase in frequency and severity during corticosteroid use.

Haematological. Corticosteroids will increase total WBC, with an increase in neutrophils and a decrease in monocytes, lymphocytes and eosinophils.

Ophthalmic. Posterior subcapsular cataracts, increased intraocular pressure, glaucoma, exophthalmos.

Metabolic. Hypertriglyceridaemia, hyperglycaemia, glycosuria, negative nitrogen balance due to protein catabolism.

Cardiovascular. Myocardial rupture following recent myocardial infarction.

Other. Hypersensitivity, thromboembolism, weight gain, increased appetite, nausea, malaise, necrotising angiitis, thrombophlebitis, aggravation or masking of infections, insomnia, syncopal episodes and anaphylactoid reactions.

Post marketing

Eye disorders: vision blurred

Reporting Suspected Adverse Effects

Reporting suspected adverse reactions after registration of the medicinal product is important. It allows continued monitoring of the benefit-risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions at www.tga.gov.au/reporting-problems.

4.9 OVERDOSE

Reports of acute toxicity and/or death following overdosage with glucocorticoids are rare. In the event of overdosage, no specific antidote is available; treatment is supportive and symptomatic.

For information on the management of overdose, contact the Poisons Information Centre on 13 11 26 (Australia).

5 PHARMACOLOGICAL PROPERTIES

5.1 PHARMACODYNAMIC PROPERTIES

Mechanism of Action

Hydrocortisone, which has salt-retaining properties, is believed to be the principal glucocorticoid secreted by the adrenal cortex. It is used as replacement therapy in adrenocortical deficiency states. It is also used for its potent anti-inflammatory effects in disorders of many organ systems.

Clinical Trials

No data available.

5.2 PHARMACOKINETIC PROPERTIES

Absorption

Hydrocortisone is readily absorbed from the gastrointestinal tract

Distribution

Peak blood concentration is attained in about one hour. The biological half-life is about 100 minutes. It is more than 90% bound to plasma proteins.

Metabolism

Hydrocortisone is metabolised in the liver and most body tissues to hydrogenated and degraded forms such as tetrahydrocortisone and tetrahydrocortisol.

Excretion

The metabolites are excreted in the urine, mainly conjugated as glucuronides, together with a very small proportion of unchanged hydrocortisone.

5.3 PRECLINICAL SAFETY DATA

Genotoxicity

No data available.

Carcinogenicity

No data available.

6 PHARMACEUTICAL PARTICULARS

6.1 LIST OF EXCIPIENTS

HYDROCORTISONE VIATRIS 4 tablets contain the following excipients:

- lactose monohydrate
- maize starch
- povidone
- magnesium stearate.

HYDROCORTISONE VIATRIS 20 tablets contain the following excipients:

- lactose monohydrate
- maize starch
- macrogol 8000
- povidone
- magnesium stearate.

6.2 INCOMPATIBILITIES

Incompatibilities were either not assessed or not identified as part of the registration of this medicine.

6.3 SHELF LIFE

In Australia, information on the shelf life can be found on the public summary of the Australian Register of Therapeutic Goods (ARTG). The expiry date can be found on the packaging.

6.4 SPECIAL PRECAUTIONS FOR STORAGE

Store below 30^{o}C.

6.5 NATURE AND CONTENTS OF CONTAINER

HYDROCORTISONE VIATRIS 4: HDPE bottles of 50 tablets

HYDROCORTISONE VIATRIS 20: HDPE bottles of 60 tablets

Australian Register of Therapeutic Goods (ARTG)

AUST R 290097 – HYDROCORTISONE VIATRIS 4 hydrocortisone 4 mg tablet bottle

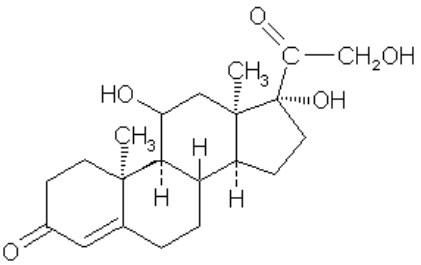
AUST R 290098 – HYDROCORTISONE VIATRIS 20 hydrocortisone 20 mg tablet bottle

6.6 SPECIAL PRECAUTIONS FOR DISPOSAL

In Australia, any unused medicine or waste material should be disposed of by taking it to your local pharmacy.

6.7 PHYSICOCHEMICAL PROPERTIES

Chemical Structure



Chemical name	11β,17α,21-trihydroxypregn-4-ene-3,20-dione
Molecular formula	$C_{21}H_{30}O_5$
Molecular weight	362.5

CAS Number

50-23-7

7 MEDICINE SCHEDULE (POISONS STANDARD)

S4 (Prescription Only Medicine)

8 SPONSOR

Alphapharm Pty Ltd trading as Viatris

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9 DATE OF FIRST APPROVAL

21/09/2017

10 DATE OF REVISION

21/02/2022

Summary Table of Changes

Section Changed	Summary of New Information
All	Minor editorial changes
6.5	Insert AUST R numbers
8	Update sponsor's details
9	Update date of first approval

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