

Product Summary

1. Trade Name of the Medicinal Product

Prednisolone Tablets 5mg

2. Qualitative and Quantitative Composition

Prednisolone BP 5.0mg

3. Pharmaceutical Form

Tablet.

Clinical Particulars

4.1. Therapeutic Indications

Suppression of inflammatory & allergic disorders such as bronchial asthma, severe hypersensitivity reactions, anaphylaxis, rheumatoid arthritis, systemic lupus erythematosis, dermatomyositis, mixed connective tissue disease (excluding systemic sclerosis), polyarthritis nodosa, inflammatory skin disorders (including pemphigus vulgaris, bullous pemphigoid and pyoderma gangrenosum), minimal change nephrotic syndrome, acute interstitial nephritis, ulcerative colitis, Crohn's disease, sarcoidosis, rheumatic carditis, auto-immune haemolytic anaemia, acute & lymphatic leukaemia, malignant lymphoma, multiple myeloma, idiopathic thrombocytopenic purpura, immuno-suppression in transplantation.

4.2. Posology and Method of Administration

The lowest dose to produce an acceptable result should be given; when it is possible to reduce the dose this must be by stages. In prolonged treatment, the dose may be increased temporarily during periods of stress or exacerbations of illness.

Undesirable effects may be minimised by using the lowest effective dose for the minimum period, and by administering the daily requirement as a single morning dose or whenever possible as a single morning dose on alternate days. Frequent patient review is required to titrate the dose against disease activity.

Adults: The dose will depend on the disease, its severity, & the clinical response, it should be given in divided doses; the dosage below is for guidance only:

Short term treatment: 20 - 30mg daily for the first few days, reducing by 2.5 - 5mg every 2 - 5 days according to the response.

Rheumatoid arthritis: Initially, 7.5* - 10mg daily reduced to the lowest effective dose.

Other conditions: 10 - 100mg daily for 1 -3 weeks, then reduced to the lowest effective dose.

Children: At 12 years, 75% of the adult dose; at 7 years, 50% of the adult dose, at 1 year 25% of the adult dose. Clinical factors must be given their due weight.

Elderly: No evidence that the dosage should differ.

* This presentation is unsuitable for doses other than 5mg or multiples thereof, for which other strength tablets are available.

4.3. Contra-indications

Systemic infections (unless specific anti-infective therapy is employed); live virus immunisation. Hypersensitivity to any ingredient.

4.4 Special warnings and precautions for use

Undesirable effects may be minimized by using the lowest effective dose for the minimum period, and by administering the daily requirement as a single morning dose or whenever possible as a single morning dose on alternate days. Frequent patient review is required to titrate the dose against disease activity.

Adrenal Suppression: adrenal corticoid atrophy develops during prolonged therapy and may persist for years after stopping treatment. Withdrawal of corticosteroids after prolonged therapy must therefore always be gradual to avoid acute adrenal insufficiency, being tapered off over weeks or months according to the dose and duration of treatment. During prolonged therapy any intercurrent illness, trauma or surgical procedure will require a temporary increase in dosage: if corticosteroids have been stopped following prolonged therapy they may need to be temporarily re-introduced.

- * Patients should carry 'Steroid Treatment Cards' which give clear guidance on the precautions to be taken to minimise risk and which provide details of prescriber, drug, dosage and duration of treatment.

Anti-inflammatory/Immunosuppressive effects and infection: Suppression of the inflammatory response and immune function increase the susceptibility to infections and their severity. The clinical presentation may often be atypical and serious infections such as septicaemia and tuberculosis may be masked and may reach an advanced stage before being recognized. Chicken pox is of particular concern since this normal minor illness may be fatal in immunosuppressed patients. Patients (or parents of children) without definite history of chicken pox should be advised to avoid close personal contact with chicken pox or herpes zoster and if exposed they should seek urgent medical attention. Passive immunization with varicella/zoster immunoglobulin (VZIG) is needed by exposed non-immune patients who are receiving systemic corticosteroids or who have used them within the previous 3months; this should be given within 10 days of exposure to chicken pox. If a diagnosis of chicken pox is confirmed, the illness warrants specialist care and urgent treatment. Corticoid steroids should not be stopped and the dose may need to be increased.

Live vaccines should not be given to individuals with impaired immune responsiveness. The antibody response to other vaccines may be diminished.

Special precautions: particular care is required when considering the use of systematic corticosteroids in patients with the following conditions and frequent patient monitoring is necessary: osteoporosis (post-menopausal females are particularly at risk), hypertension or congestive heart failure, existing or previous history of severe effective disorders (especially previous steroid psychosis), diabetes mellitus (or a family history of diabetes), history of tuberculosis, glaucoma (or a family history of diabetes), history of tuberculosis, glaucoma, (or a family history of glaucoma), previous corticosteroid-induced myopathy, liver failure, renal insufficiency, epilepsy or peptic ulceration .

Treatment of elderly patients: The common side effects of systematic corticosteroids may be associated with more serious consequences in old age, especially osteoporosis, hypertension, hypokalaemia, diabetes, susceptibility to infection and thinning of the skin.

Close clinical supervision is required to avoid life threatening reactions.

Use in children: corticosteroids cause dose-related growth retardation in infancy, childhood and adolescence which may be irreversible.

Patients and/or carers should be warned that potentially severe psychiatric adverse reactions may occur with systemic steroids (see section 4.8). Symptoms typically emerge within a few days or weeks of starting the treatment. Risks may be higher with high doses/systemic exposure (see also section 4.5 pharmacokinetic interactions that can increase the risk of side effects), although dose levels do not

allow prediction of the onset, type, severity or duration of reactions. Most reactions recover after either dose reduction or withdrawal, although specific treatment may be necessary. Patients/carers should be encouraged to seek medical advice if worrying psychological symptoms develop, especially if depressed mood or suicidal ideation is suspected. Patients/carers should also be alert to possible psychiatric disturbances that may occur either during or immediately after dose tapering/withdrawal of systemic steroids, although such reactions have been reported infrequently.

Particular care is required when considering the use of systemic corticosteroids in patients with existing or previous history of severe affective disorders in themselves or in their first degree relatives. These would include depressive or manic-depressive illness and previous steroid psychosis.

4.5. Interactions with other Medicaments and other forms of Interaction

Rifampicin, rifabutin, carbamazepine, phenobarbitone, phenytoin, primidone and aminoglutethimide enhance the metabolism of corticosteroids and its therapeutic effects may be reduced.

The desired effects of hypoglycaemic agents (including insulin), antihypertensives and diuretics are antagonised by corticosteroids, and the hypokalaemic effects of acetazolamide, loop diuretics, thiazide diuretics and carbenoxolone are enhanced.

The efficacy of coumarin anticoagulants may be enhanced by concurrent corticosteroid therapy and close monitoring of the INR or prothrombin time is required to avoid spontaneous bleeding.

The renal clearance of salicylates is increased by corticosteroids and steroid withdrawal may result in salicylate intoxication.

4.6. Pregnancy and Lactation

Intra-uterine growth retardation in the foetus and a small increased risk of cleft palate have been reported. Hypoadrenalism may occur in the neonate. There is evidence of harmful effects on pregnancy in animals. When corticosteroids are essential however, patients with normal pregnancies may be treated as though they were in the non-gravid state. Patients with pre-eclampsia or fluid retention require close monitoring. Corticosteroids are excreted in small amounts in breast milk and infants of mothers taking pharmacological doses of corticosteroids should be monitored carefully for signs of adrenal suppression.

4.7. Effects on Ability to Drive and Use Machines

None.

4.8 Undesirable effects

The incidence of predictable undesirable effects, including hypothalamic-pituitary-adrenal suppressions correlates with the relative potency of the drug, dosage, timing of administration and duration of treatment (see 4.4)

Endocrine/metabolic side effects: suppressions of the hypothalamic-pituitary-adrenal axis, growth suppressions in infancy, childhood and adolescence, menstrual irregularity and amenorrhoea.

Cushingoid facies, hirsutism, weight gain, impaired carbohydrate tolerance with increased requirement for anti-diabetic therapy. Negative protein and calcium balance.

Increased appetite.

Anti-inflammatory and immunosuppressive effects increased susceptibility and severity of infections with suppression of clinical symptoms and signs, opportunistic infections, recurrence of dormant tuberculosis (see 4.4)

Musculoskeletal: osteoporosis, vertebral and long bone fractures, avascular osteonecrosis, tendon rupture. Proximal myopathy.

Fluid and electrolyte disturbance: sodium and water retention, hypertension, potassium loss, hypokalaemic alkalosis.

Neuropsychiatric: Euphoria, psychological dependence, depression, insomnia, and aggravation of schizophrenia.

Increased intracranial pressure with papilloedema in children (pseudotumour cerebri) usually after treatment withdrawal. Aggravation of epilepsy.

Ophthalmic: increased intra-ocular pressure, glaucoma papilloedema, posterior subcapsular cataracts, corneal or scleral thinning, exacerbation of ophthalmic viral or fungal diseases.

Gastrointestinal: Dyspepsia, peptic ulceration with perforation and haemorrhage, acute pancreatitis, candidiasis.

Dermatological: impaired healing, skin atrophy, bruising, telalgictasia, acne.

General: hypersensitivity including anaphylaxis has been reported. Leucocytosis, Thrombocytopenia.

Withdrawal symptoms and signs: too rapid a reduction of corticosteroid dosage following prolonged treatment can lead to acute adrenal insufficiency, hypertension and death. (see 4.4). A “withdrawal syndrome” may also include

fever, myalgia, arthralgia, rhinitis, conjunctivitis, painful itchy skin nodules and loss of weight.

A wide range of psychiatric reactions including affective disorders (such as irritable, euphoric, depressed and liable mood, and suicidal thoughts), psychotic reactions (including mania, delusions, hallucinations and aggravation of schizophrenia), behavioral disturbances, irritability, anxiety, sleep disturbances and cognitive dysfunction including confusion and amnesia have been reported. Reactions are common and may occur in both adults and children. In adults, the frequency of severe reactions has been estimated to be 5-6%. Psychological effects have been reported on withdrawal of corticosteroids; the frequency is unknown.

4.9. Overdose

No specific antidote; treatment is symptomatic and supportive.

Pharmacological Properties

5.1. Pharmacodynamic Properties

Prednisolone is a glucocorticoid with the general properties of corticosteroids. It is used for its anti-inflammatory and immunosuppressant properties which suppress the clinical manifestations of disease in a wide range of disorders.

5.2. Pharmacokinetic Properties

Prednisolone is absorbed from the gastrointestinal tract. In the circulation it is extensively bound to plasma protein. It is mainly metabolised in the liver but also in the kidney, and is excreted in the urine as free and conjugated metabolites. It crosses the placenta and small amounts are excreted in breast milk.

5.3. Preclinical Safety Data

Injection of prednisolone has produced restlessness, stumbling, circling, apparent blindness, polyphagia, polydipsia, amaurosis, weight loss and vomiting in a young dog; it has been reported that, in treatment up to one month with doses or oral prednisolone used in clinical practice, the cat appears to be remarkable resistant to iatrogenic Cushing's syndrome.

Pharmaceutical Particulars

6.1. List of Excipients

Lactose, maize starch and magnesium stearate.

6.2. Incompatibilities

None known.

6.3. Shelf Life

3 years.

6.4. Special Precautions for Storage

Store in a cool dry place protected from light below 25°C.

6.5. Nature and Contents of Container

Securitainers and/or Tampertainers containing 500 or 1000 tablets.

6.6. Instruction for Use/Handling

Not applicable.

Administrative Data

7. Marketing Authorisation Holder

Forley Generics Ltd
NLA Tower
12-16 Addiscombe Road
Croydon
CRO OXT

United Kingdom

8. Marketing Authorization Number

PL 16201/0018

**9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE
AUTHORISATION**

16/03/2009

10 DATE OF REVISION OF THE TEXT

16/03/2009