Prednison Tablets, USP

DESCRIPTION
Prednisone Tablets, USP are available for oral administration containing 2.5 mg, 5 mg, 10 mg, 20 mg and 50 mg of prednisone. Each tablet contains the following inactive ingredients: lactose monohydrate, magnesium stearate, microcrystalline cellulose, pregelatinized starch, sodium lauryl sulfate and sodium starch glycolate.

Prednisone Tablets, USP contain prednisone which is a glucocorticoid. Their available forms are as follows: prednisone tablets are available in the following strengths: 2.5 mg, 5 mg, 10 mg, 20 mg and 50 mg.

This medication is used to treat a number of conditions such as arthritis, lupus, rheumatoid arthritis, dermatitis, and other conditions that respond to its anti-inflammatory effects. It is also used to treat a number of conditions caused by sensitivity to certain substances such as allergies. This medicine is also used to treat certain cancers.

CLINICAL PHARMACOLOGY
Naturally occurring glucocorticoids (hydrocortisone and cortisone), which also have salt-retaining properties, are used as replacement therapy in adrenocortical deficiency states. Their synthetic analogues are primarily used for their potent anti-inflammatory effects in a wide variety of inflammatory and allergic conditions. Their actions are primarily mediated by direct effects on lymphocytes and macrophages. These synthetic agents are not substitutes for cortisone, which is a naturally occurring glucocorticoid, and are not made synthetically.

Glucocorticoids cause profound and varied metabolic effects. In addition, they modify the body’s immune responses to diverse stimuli.

INDICATIONS AND USEAGE
Prednisone Tablets, USP are indicated in the following conditions:

Endocrine Disorders
Primary or secondary adrenocortical insufficiency (hydrocortisone or cortisone is the first choice; synthetic analogues may be used in conjunction with mineralocorticoids when applicable, in secondary adrenocortical insufficiency of pituitary origin, in adrenogenital syndrome, and in congenital absence of the adrenal cortex).

Renal Failure
Patients with certain forms of nephrotic syndrome, i.e., minimal change disease, may respond to corticosteroids, and initially, treatment with corticosteroids may be needed. However, in many instances, corticosteroids are not necessary for long-term maintenance therapy. In patients who have received substantial doses of corticosteroids during pregnancy, should be carefully observed for signs of hypothalamic-pituitary-adrenal (HPA) axis suppression. Observe patients receiving large doses of corticosteroids and abrupt discontinuation or dosage reduction for signs of Cushing’s syndrome. When high doses are necessary to control severe disease, the reduction should be gradual to avoid adrenal insufficiency.

Rheumatic Disorders
As adjunctive therapy for short-term administration (to tide the patient over an acute episode or exacerbation) in: juvenile rheumatoid arthritis, rheumatoid arthritis, including juvenile rheumatoid arthritis (select cases may require low-dose maintenance therapy), ankylosing spondylitis, advanced and subacute bursitis, acute nonspecific tenosynovitis, acute gouty arthritis, post-traumatic osteoarthritis, synovitis of osteoarthritis, epicondylitis.

Collagen Diseases
During an exacerbation or as maintenance therapy in selected cases of: systemic lupus erythematosus, systemic dermatomyositis (erythema), acute rheumatic carditis.

Dermatologic Diseases
Pemphigus, Bullous dermatitis herpetiformis, severe erythroderma multiforme (stevens-johnson syndrome), exfoliative dermatitis, mycosis fungoides, severe psoriasis, severe lichen sclerosus et atrophicus.

Allergic Diseases
Control of severe or incapacitating allergic conditions intractable to adequate trials of conventional therapy: seasonal or perennial allergic rhinitis, bronchial asthma, contact dermatitis, atopic dermatitis, serum sickness, drug hypersensitivity reactions.

Ophthalmic Diseases
Severe acute and chronic allergic and inflammatory processes involving the eye and its adnexa such as: allergic conjunctivitis, allergic keratitis, herpetic keratitis, anterior uveitis, intermediate uveitis, diffuse posterior uveitis and choroiditis, sympathetic ophthalmia, allergic conjunctivitis, keratitis, chorioretinitis, optic neuritis, iritis, and iridocyclitis.

Respiratory Diseases
Symptomatic sarcoidosis, leprosy’s syndrome not manageable by other means, erythema, fulminating or disseminated pulmonary tuberculosis when used concurrently with appropriate antituberculous chemotherapy, aspiration pneumonitis.

Hematologic Disorders
Idiopathic thrombocytopenic purpura in adults, secondary thrombocytopenia in adults, acquired (autoimmune) hemolytic anemia, erythroblastopenia (RBC anemia), congenital (erythroblastopenia).

Neoplastic Diseases
For palliative management of: leukemias and lymphomas in adults, acute leukemia of childhood.

Edematous States
To induce a diuresis or remission of proteinuria in the nephrotic syndrome, without uremia, of the idiopathic type or that due to lupus erythematosus.

Gastrointestinal Diseases
To tide the patient over a critical period of the disease in: ulcerative colitis, regional enteritis.

Nervous System
Acute exacerbations of multiple sclerosis.

Miscellaneous
Tuberculous meningitis with subarachnoid block or impending block when used concurrently with appropriate antituberculous chemotherapy, tightness with neurologic or myocardial involvement.

CONTRAINdications
Prednisone Tablets are contraindicated in systemic fungal infections and known hypersensitivity to components.

WARNINGS
In patients on corticosteroid therapy subjected to unusual stress, increased dosage of rapidly may be required. If a stress situation is anticipated, it is important that the patient be prepared in advance. In patients on corticosteroid therapy subjected to unusual stress, increased dosage of rapidly may be required. If a stress situation is anticipated, it is important that the patient be prepared in advance.

Usual adult dosage based on an individual's response to the drug has been described. Usual adult dosage for any indication should be reduced gradually to the minimum dosage effective to maintain control of disease. Usual adult dosage for any indication should be reduced gradually to the minimum dosage effective to maintain control of disease.

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Dermatologic
Imperiled wound healing
Thin fragile skin
Petechial and ecchymoses
Facial erythema
Increased sweating
May suppress reactions to skin tests.
Neurological
Increased intracranial pressure with papilledema (pseudotumor cerebri) usually after treatment
Cataracts
Vertigo
Hyponatremia
Endocrine
Menstrual irregularities
Development of Cushingsoid
Secondary adrenocortical and pituitary unresponsiveness, particularly in times of stress, as in trauma, surgery or illness
Suppression of growth in children
Decreased corticosterone tolerance
Management of latent diabetes mellitus
Increased requirements for insulin or oral hypoglycemic agents in diabetes
Ophthalmic
Prednisolone-induced cataracts
Increased intraocular pressure
Glaucoma
Exophthalmos
Additional Reactions
Urticaria and other allergic, anaphylactic or hypersensitivity reactions
DOSAGE AND ADMINISTRATION
The initial dosage of prednisone may vary from 5 mg to 60 mg per day, depending on the specific disease entity being treated. In situations of less severity lower doses will generally suffice, while in selected patients higher initial doses may be required. The initial dosage should be maintained or adjusted until a satisfactory response is noted. If after a reasonable trial period, with a subtherapeutic response, a therapeutic response is not noted, prednisone should be discontinued and the patient transferred to another therapeutic agent. It should be emphasized that dosage requirements are variable and must be individualized.

Escape from these constantly elevated plasma levels for even short periods of time may be accompanied by adrenal suppression, the cushingoid state, corticoid withdrawal symptoms, and growth suppression in children.

The rationale for this treatment schedule is based on two major premises: (a) the anti-inflammatory or therapeutic effect of corticosteroids persists longer than their physical presence and metabolic effects and (b) administration of the corticoid every other morning allows for re-establishment of more nearly normal hypothalamic-pituitary-adrenal (HPA) activity on the off-steroid day.

A brief review of the HPA physiology may be helpful in understanding this rationale. Acting primarily through the hypothalamus, a fall in cortisol stimulates the pituitary gland to produce increasing amounts of corticotropin (ACTH). While a rise in cortisol inhibits ACTH secretion, the HPA system is characterized by diurnal (circadian) rhythm. Serum levels of ACTH rise from a low point about 10 pm to a peak level about 6 am. Increased ACTH stimulates adrenal cortical stimulation in a rise in plasma cortisol with maximal levels occurring between 2 am and 8 am. This rise in cortisol damages ACTH production and in turn adrenocortical activity. There is a gradual fall in plasma corticoids during the day with lowest levels occurring about midnight.

The diurnal rhythm of the HPA axis is lost in Cushings disease, a syndrome of adrenocortical hyperfunction characterized by obesity with centripetal fat distribution, thinning of the skin with easy bruising, muscle wasting with weakness, hypertension, latent diabetes, osteoporosis, electrolyte imbalance, etc. The same clinical findings of hyperandrogenism may be noted during long-term pharmacologic dose corticosteroid therapy administered in conventional daily divided doses. It would appear, then, that a disturbance in the diurnal cycle with maintenance of elevated cortisol values during the night may play a significant role in the development of undesirable corticosteroid effects. Escape from these constantly elevated plasma levels for even short periods of time may be instrumental in protecting against undesirable pharmacologic effects.

Between conventional pharmacologic dose corticosteroid therapy, ACTH production is inhibited with consequent suppression of cortisol production by the adrenal cortex. Recovery time for normal HPA activity is variable depending upon the dose and duration of treatment. During this time the patient is vulnerable to any stressful situation. Although it has been shown that there is considerable less adrenal suppression following a single morning dose of prednisolone (10 mg) as opposed to a quartet of that dose administered every 6 hours, there is evidence that some suppressive effect on adrenal activity can be carried over into the following day when pharmacologic doses are used. Further, it has been shown that a single dose of certain corticosteroids will effect adrenal suppression for two or more days. Other corticoids, including methylprednisolone, hydrocortisone, and prednisone, are considered to be short acting (producing adrenocortical suppression for 1½ to 1½ days following a single dose) and thus are recommended for alternate day therapy.

The following should be kept in mind when considering alternate day therapy:
1. Basic principles and indications for corticosteroid therapy should apply. The benefits of alternate day therapy should not encourage the indiscriminate use of steroids.
2. Alternate day therapy is a therapeutic technique primarily designed for patients in whom long-term pharmacologic corticosteroid therapy is anticipated.

Urticaria and other allergic, anaphylactic or hypersensitivity reactions
In the event of an acute flare-up of the disease process, it may be necessary to increase the dosage of prednisone for a period of time in order to control the disease process. When the acute phase is controlled, an attempt should be made to reduce this dose to a minimum.

Multiple Sclerosis
In situations of less severity lower doses will generally suffice, while in selected patients higher initial doses may be required. The initial dosage should be maintained or adjusted until a satisfactory response is noted. If after a reasonable trial period, with a subtherapeutic response, a therapeutic response is not noted, prednisone should be discontinued and the patient transferred to another therapeutic agent. It should be emphasized that dosage requirements are variable and must be individualized.

Multiple Sclerosis
In the event of an acute exacerbation of multiple sclerosis daily doses of 200 mg of prednisolone for a week followed by 80 mg every other day for 1 month have been shown to be effective. (Dosage range is the same for prednisone and prednisolone.)

Alternate Day Therapy
Alternate day therapy is a corticosteroid dosing regimen in which twice the usual daily dose of corticoid is administered every other morning. The purpose of this mode of therapy is to provide the patient requiring long-term pharmacologic dose treatment with the beneficial effects of corticoids while minimizing certain undesirable effects, including pituitary-adrenal suppression, the cushingoid state, corticoid withdrawal symptoms, and growth suppression in children.

The rationale for this treatment schedule is based on two major premises: (a) the anti-inflammatory or therapeutic effect of corticosteroids persists longer than their physical presence and metabolic effects and (b) administration of the corticoid every other morning allows for re-establishment of nearly normal hypothalamic-pituitary-adrenal (HPA) activity on the off-steroid day.

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