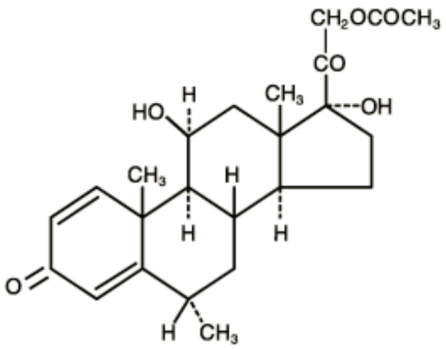
PT. Pfizer Indonesia
Local Product Document

Generic Name: Methylprednisolone Acetate
Trade Name: DEPO-MEDROL®
CDS Effective Date: January 12, 2023
Supersedes: October 22, 2020

DEPO-MEDROL®
METHYLPREDNISOLONE ACETATE
Brand of methylprednisolone acetate sterile aqueous suspension
(Sterile methylprednisolone acetate suspension, USP)

Not for Intravenous Use
DESCRIPTION
DEPO-MEDROL Sterile Aqueous Suspension contains methylprednisolone acetate which is the 6-methyl derivative of prednisolone. Methylprednisolone acetate is a white or practically white, odorless, crystalline powder which melts at 215° with some decomposition. It is soluble in dioxane, sparingly soluble in acetone, in alcohol, in chloroform, and in methanol, and slightly soluble in ether. It is practically insoluble in water. The chemical name for methylprednisolone acetate is pregna-1, 4-diene-3, 20-dione, 21-(acetyloxy)-11, 17-dihydroxy-6-methyl-, (6α, 11β) - and the molecular weight is 416.51.

The structural formula is represented below:



DEPO-MEDROL is an anti-inflammatory glucocorticoid, for intramuscular, intrasynovial, soft tissue or intralesional injection. It is available in one strength: 40 mg/mL.

ACTIONS
Naturally occurring glucocorticoids (hydrocortisone), which also have salt retaining properties, are used in replacement therapy in adrenocortical deficiency states. Their synthetic analogs are used primarily for their potent anti-inflammatory effects in disorders of many organ systems.

Glucocorticoid cause profound and varied metabolic effects. In addition, they modify the body's immune response to diverse stimuli.

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INDICATIONS

A. FOR INTRAMUSCULAR ADMINISTRATION

When oral therapy is not feasible, and the strength, dosage form and route of administration of the drug reasonably lend the preparation to the treatment of the condition, the intramuscular use of DEPO-MEDROL Sterile Aqueous Suspension (methylprednisolone acetate) is indicated as follows:

1. Endocrine Disorders

- Primary or secondary adrenocortical insufficiency (hydrocortisone or cortisone is the drug of choice; synthetic analogs may be used in conjunction with mineralocorticoids where applicable; in infancy, mineralocorticoid supplementation is of particular importance).
- Acute adrenocortical insufficiency (hydrocortisone or cortisone is the drug of choice, mineralocorticoid supplementation may be necessary, particularly when synthetic analogs are used).
- Congenital adrenal hyperplasia.
- Hypercalcemia associated with cancer.
- Nonsuppurative thyroiditis.

2. Rheumatic Disorders

As adjunctive therapy for short-term administration (to tide the patient over an acute episode or exacerbation) in:

- Post-traumatic osteoarthritis
- Synovitis of osteoarthritis
- Rheumatoid arthritis, including Juvenile rheumatoid arthritis (selected cases may require low-dose maintenance therapy)
- Epicondylitis
- Acute non-specific tenosynovitis
- Acute gouty arthritis
- Psoriatic arthritis
- Ankylosing spondylitis
- Acute and subacute bursitis

3. Collagen Diseases

During an exacerbation or as maintenance therapy in selected cases of:

- Systemic lupus erythematosus
- Systemic dermatomyositis (polymyositis)
- Acute rheumatic carditis

4. Dermatologic Diseases

- Pemphigus
- Severe erythema multiforme (Stevens-Johnson syndrome)
- Exfoliative dermatitis
- Bullous dermatitis herpetiformis
- Severe seborrheic dermatitis
- Severe psoriasis
- Mycosis fungoides

5. Allergic States

Control of severe or incapacitating allergic conditions intractable to adequate trials of conventional treatment in:

- Bronchial asthma
- Contact dermatitis
- Atopic dermatitis
- Serum sickness
- Drug hypersensitivity reactions
- Urticarial transfusion reactions
- Acute non-infectious laryngeal edema (epinephrine is the drug of first choice)

6. Ophthalmic Diseases

Severe acute and chronic allergic and inflammatory processes involving the eye, such as:

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- Herpes zoster ophthalmicus
- Iritis, iridocyclitis
- Chorioretinitis
- Diffuse posterior uveitis
- Optic neuritis
- Drug hypersensitivity reactions
- Anterior segment inflammation
- Allergic conjunctivitis
- Allergic corneal marginal ulcers
- Keratitis

7. Gastrointestinal Diseases

To tide the patient over a critical period of the disease in:

- Ulcerative colitis (systemic therapy)
- Regional enteritis (systemic therapy)

8. Respiratory Diseases

- Fulminating or disseminated pulmonary tuberculosis when used concurrently with appropriate anti-tuberculous chemotherapy
- Symptomatic sarcoidosis
- Berylliosis
- Loeffler's syndrome not manageable by other means
- Aspiration pneumonitis

9. Hematologic Disorders

- Acquired (autoimmune) hemolytic anemia
- Secondary thrombocytopenia in adults
- Erythroblastopenia (RBC anemia)
- Congenital (erythroid) hypoplastic anemia

10. Neoplastic Diseases

For palliative management of:

- Leukemias and lymphomas
- Acute leukemia of childhood

11. Edematous States

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

12. Miscellaneous

- Tuberculous meningitis with subarachnoid block or impending block when used concurrently with appropriate antituberculous chemotherapy.
- Trichinosis with neurologic or myocardial involvement.

B. FOR INTRA-SYNOVIAL OR SOFT TISSUE ADMINISTRATION (including periarticular and intrabursal) SEE WARNINGS

DEPO-MEDROL is indicated as adjunctive therapy for short-term administration (to tide the patient over an acute episode or exacerbation) in:

- Synovitis of osteoarthritis
- Rheumatoid arthritis
- Acute and subacute bursitis
- Acute gouty arthritis
- Epicondylitis
- Acute nonspecific tenosynovitis
- Post-traumatic osteoarthritis

C. FOR INTRALESIONAL ADMINISTRATION

DEPO-MEDROL is indicated for intralesional use in the following conditions:

Keloids, Localized hypertrophic, infiltrated, inflammatory lesions of:

- Lichen planus, psoriatic plaques
- Granuloma annulare
- Lichen simplex chronicus (neurodermatitis)
- Discoid lupus erythematosus
- Necrobiosis lipoidica diabeticorum
- Alopecia areata

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DEPO-MEDROL may also be useful in cystic tumors or an aponeurosis of tendon (ganglia).

CONTRAINDICATIONS
Methylprednisolone acetate is contraindicated:
- in patients who have systemic fungal infections
- in patients with known hypersensitivity to methylprednisolone or any component of the formulation
- for use by the intrathecal route of administration
- for use by the epidural route of administration
- for use by the intravenous route of administration

Administration of live or live, attenuated vaccines is contraindicated in patients receiving immunosuppressive doses of corticosteroids.

WARNINGS
Multidose use of DEPO-MEDROL from a single vial requires special care to avoid contamination. Although initially sterile, any multidose use of vials may lead to contamination unless strict aseptic technique is observed. Particular care, such as use of disposable sterile syringes and needles, is necessary.

While crystals of adrenal steroids in the dermis suppress inflammatory reaction, their presence may cause disintegration of the cellular elements and physicochemical changes in the ground substance of the connective tissue. The resultant infrequently occurring dermal and/or subdermal changes may form depressions in the skin at the injection site. The degree to which this reaction occurs will vary with the amount of adrenal steroid injected. Regeneration is usually complete within a few months or after all crystals of the adrenal steroid have been absorbed.

In order to minimize the incidence of dermal and subdermal atrophy, care must be exercised not to exceed recommended doses in injections. Multiple small injections into the area of the lesion should be made whenever possible. The technique of intra-synovial and intramuscular injection should include precautions against injection or leakage into the dermis. Injection into the deltoid muscle should be avoided because of a high incidence of subcutaneous atrophy.

DEPO-MEDROL should not be administered by any route other than those listed under INDICATIONS. It is critical that, during administration of DEPO-MEDROL, appropriate technique be used and care taken to assure proper placement of drug.

Severe medical events have been reported in association with the intrathecal/epidural routes of administration (see section **UNDESIRABLE EFFECTS**). Appropriate measures must be taken to avoid intravascular injection.

Endocrine Effects
In patients on corticosteroid therapy subjected to unusual stress, increased dosage of rapidly acting corticosteroids before, during, and after the stressful situation is indicated.

Pharmacologic doses of corticosteroids administered for prolonged periods may result in hypothalamic-pituitary-adrenal (HPA) suppression (secondary adrenocortical insufficiency). The degree and duration of adrenocortical insufficiency produced is variable among patients and

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depends on the dose, frequency, time of administration, and duration of glucocorticoid therapy. This effect may be minimized by use of alternate-day therapy.

In addition, acute adrenal insufficiency leading to a fatal outcome may occur if glucocorticoids are withdrawn abruptly.

Since mineralocorticoid secretion may be impaired, salt and/or a mineralocorticoid should be administered concurrently.

A steroid "withdrawal syndrome," seemingly unrelated to adrenocortical insufficiency, may also occur following abrupt discontinuance of glucocorticoids. This syndrome includes symptoms such as: anorexia, nausea, vomiting, lethargy, headache, fever, joint pain, desquamation, myalgia, weight loss, and/or hypotension. These effects are thought to be due to the sudden change in glucocorticoid concentration rather than to low corticosteroid levels.

Because glucocorticoids can produce or aggravate Cushing's syndrome, glucocorticoids should be avoided in patients with Cushing's disease.

There is an enhanced effect of corticosteroids on patients with hypothyroidism.

Immunosuppressant Effects/Increased Susceptibility to Infections
Corticosteroids may increase susceptibility to infection, may mask some signs of infection, and new infections may appear during their use. There may be decreased resistance and inability to localize infection when corticosteroids are used.

Do not use intra-synovially, intrabursally or intratendinous administration for local effect in the presence of acute infection.

Infections with any pathogen, including viral, bacterial, fungal, protozoan, or helminthic organisms, in any location in the body, may be associated with the use of corticosteroids alone or in combination with other immunosuppressive agents that affect cellular immunity, humoral immunity, or neutrophil function.

Persons who are on drugs which suppress the immune system are more susceptible to infections than healthy individuals. Chicken pox and measles, for example, can have a more serious or even fatal course in non-immune children or adults on corticosteroids.

Ocular Effects
Prolonged use of corticosteroids may produce posterior subcapsular cataracts and nuclear cataracts (particularly in children), exophthalmos, or increased intraocular pressure, which may result in glaucoma with possible damage to the optic nerves, and may enhance the establishment of secondary ocular infections due to fungi or viruses.

Usage in Pregnancy: Since adequate human reproduction studies have not been done with corticosteroids, the use of these drugs in pregnancy, nursing mothers, or women of child-bearing potential requires that the possible benefits of the drug be weighed against the potential hazards to the mother and embryo or fetus. Infants born of mothers who have received substantial doses to corticosteroids during pregnancy should be carefully observed for signs of hypoadrenalism.

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Average and large doses of cortisone or hydrocortisone can cause elevation of blood pressure, salt and water retention, and increased excretion of potassium. These effects are less likely to occur with the synthetic derivatives except when used in large doses. Dietary salt restriction and potassium supplementation may be necessary. All corticosteroids increase calcium excretion.

While on corticosteroid therapy, patients should not be vaccinated against smallpox. Other immunization procedures should not be undertaken in patients who are on corticosteroids, especially on high doses, because of possible hazards of neurological complications and lack of antibody response.

The use of corticosteroids in 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 appropriate antituberculosis regimen.

If corticosteroids are indicated in patients with latent tuberculosis or tuberculin reactivity, close observation is necessary as reactivation of the disease may occur.

During prolonged corticosteroid therapy, these patients should receive chemoprophylaxis.

Immune System Effects
Allergic reactions may occur. Because rare instances of anaphylactic reactions have occurred in patients receiving parenteral corticosteroid therapy, appropriate precautionary measures should be taken prior to administration, especially when the patient has a history of allergy to any drug.

Cardiac Effects
Adverse effects of glucocorticoids on the cardiovascular system, such as dyslipidemia and hypertension, may predispose treated patients with existing cardiovascular risk factors to additional cardiovascular effects, if high doses and prolonged courses are used. Accordingly, corticosteroids should be employed judiciously in such patients and attention should be paid to risk modification and additional cardiac monitoring if needed.

Children who are on immunosuppressant drugs are more susceptible to infections than healthy children. Chickenpox and measles, for example, can have a more serious or even fatal course in children on immunosuppressant corticosteroids. In such children, or in adults who have not had these diseases, particular care should be taken to avoid exposure: If exposed, therapy with varicella zoster immune globulin (VZIG) or pooled intravenous immunoglobulin (IVIG), as appropriate, may be indicated. If chickenpox develops, treatment with antiviral agents may be considered.

PRECAUTIONS
Endocrine Effects
Drug-induced secondary adrenocortical insufficiency may be minimized by gradual reduction of dosage. This type of relative insufficiency may persist for months after discontinuation of therapy; therefore, in any situation of stress occurring during that period, hormone therapy should be reinstituted.

Ocular Effects
Corticosteroids should be used cautiously in patients with ocular herpes simplex because of possible corneal perforation.

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Corticosteroid therapy has been associated with central serous chorioretinopathy, which may lead to retinal detachment.

Metabolism and Nutrition
Corticosteroids, including methylprednisolone, can increase blood glucose, worsen pre-existing diabetes, and predispose those on long-term corticosteroid therapy to diabetes mellitus.

Psychiatric Effects
Psychic derangements may appear when corticosteroids are used, ranging from euphoria, insomnia, mood swings, personality changes, and severe depression to frank psychotic manifestations. Also, existing emotional instability or psychotic tendencies may be aggravated by corticosteroids.

Potentially severe psychiatric adverse reactions may occur with systemic steroids. Symptoms typically emerge within a few days or weeks of starting treatment. Most reactions recover after either dose reduction or withdrawal, although specific treatment may be necessary. Psychological effects have been reported upon withdrawal of corticosteroids; the frequency is unknown. Patients/caregivers should be encouraged to seek medical attention if psychological symptoms develop in the patient, especially if depressed mood or suicidal ideation is suspected. Patients/caregivers should be alert to possible psychiatric disturbances that may occur either during or immediately after dose tapering/withdrawal of systemic steroids.

Vascular Effects
Thrombosis including venous thromboembolism has been reported to occur with corticosteroids. As a result corticosteroids should be used with caution in patients who have or may be predisposed to thromboembolic disorders.

Gastrointestinal Effects
High doses of corticosteroids may produce acute pancreatitis.

There is no universal agreement on whether corticosteroids *per se* are responsible for peptic ulcers encountered during therapy; however, glucocorticoid therapy may mask the symptoms of peptic ulcer so that perforation or hemorrhage may occur without significant pain. Glucocorticoid therapy may mask peritonitis or other signs or symptoms associated with gastrointestinal disorders such as perforation, obstruction or pancreatitis. In combination with NSAIDs, the risk of developing gastrointestinal ulcers is increased.

Corticosteroids should be used with caution in non-specific ulcerative colitis, if there is a probability of impending perforation, abscess or other pyogenic infection.

Caution must also be used in diverticulitis, fresh intestinal anastomoses, active or latent peptic ulcer,-hypertension, when steroids are used as direct or adjunctive therapy.

Use in Children
Growth and development of infants and children on prolonged corticosteroid therapy should be carefully observed. Growth may be suppressed in children receiving long-term, daily, divided-dose glucocorticoid therapy and use of such regimen should be restricted to the most urgent indications.

Infants and children on prolonged corticosteroid therapy are at special risk from raised intracranial pressure.

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High doses of corticosteroids may produce pancreatitis in children.

The following additional precautions apply for parenteral corticosteroids. Intra-synovial injection of a corticosteroid may produce systemic as well as local effects.

Appropriate examination of any joint fluid present is necessary to exclude a septic process.

A marked increase in pain accompanied by local swelling, further restriction of joint motion, fever, and malaise are suggestive of septic arthritis. If this complication occurs and the diagnosis of sepsis is confirmed, appropriate antimicrobial therapy should be instituted.

Local injection of a steroid into a previously infected joint is to be avoided.

Corticosteroids should not be injected into unstable joints.

Sterile technique is necessary to prevent infections or contamination.

The slower rate of absorption by intramuscular administration should be recognized.

Nervous System Effects
Corticosteroids should be used with caution in patients with seizure disorders.

Corticosteroids should be used with caution in patients with myasthenia gravis (Also see myopathy statement in **Musculoskeletal Effects** section).

There have been reports of epidural lipomatosis in patients taking corticosteroids, typically with long-term use at high doses.

Hepatobiliary Effects
Hepatobiliary disorders have been reported which may be reversible after discontinuation of therapy. Therefore appropriate monitoring is required.

Musculoskeletal Effects
An acute myopathy has been reported with the use of high doses of corticosteroids, most often occurring in patients with disorders of neuromuscular transmission (e.g., myasthenia gravis), or in patients receiving concomitant therapy with anticholinergics, such as neuromuscular blocking drugs (e.g., pancuronium). This acute myopathy is generalized, may involve ocular and respiratory muscles, and may result in quadriparesis. Elevations of creatine kinase may occur. Clinical improvement or recovery after stopping corticosteroids may require weeks to years.

Osteoporosis is a common but infrequently recognized adverse effect associated with a long-term use of large doses of glucocorticoid.

Renal and Urinary Disorders
Caution is required in patients with systemic sclerosis because an increased incidence of scleroderma renal crisis has been observed with corticosteroids, including methylprednisolone.

Corticosteroids should be used with caution in patients with renal insufficiency.

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Investigations
Average and large doses of hydrocortisone or cortisone can cause elevation of blood pressure, salt and water retention, and increased excretion of potassium. These effects are less likely to occur with the synthetic derivatives except when used in large doses. Dietary salt restriction and potassium supplementation may be necessary. All corticosteroids increase calcium excretion.

Injury, Poisoning and Procedural Complications
Systemic corticosteroids are not indicated for, and therefore should not be used to treat, traumatic brain injury; a multicenter study revealed an increased mortality at 2 weeks and 6 months after injury in patients administered methylprednisolone sodium succinate compared to placebo. A causal association with methylprednisolone sodium succinate treatment has not been established.

Other
Since complications of treatment with glucocorticoids are dependent on the amount of the dose and the duration of treatment, a risk/benefit decision must be made in each individual case as to dose and duration of treatment as to whether daily or intermittent therapy should be used.

Aspirin and non-steroidal anti-inflammatory agents should be used cautiously in conjunction with corticosteroids.

Pheochromocytoma crisis, which can be fatal, has been reported after administration of systemic corticosteroids. Corticosteroids should only be administered to patients with suspected or identified pheochromocytoma after an appropriate risk/benefit evaluation.

In post marketing experience tumor lysis syndrome (TLS) has been reported in patients with malignancies, including hematological malignancies and solid tumors, following the use of systemic corticosteroids alone or in combination with other chemotherapeutic agents. Patients at high risk of TLS, such as patients with tumors that have a high proliferative rate, high tumor burden and high sensitivity to cytotoxic agents, should be monitored closely and appropriate precautions should be taken.

FERTILITY, PREGNANCY AND LACTATION
Fertility
Corticosteroids have been shown to impair fertility in animal studies (see section **PRECLINICAL SAFETY DATA**).

Pregnancy
Some animal studies have shown that corticosteroids, when administered to the mother at high doses, may cause fetal malformations. There is limited data on the use of methylprednisolone acetate in human pregnancies, and animal reproduction studies have not been done. Since adequate human reproductive studies have not been done with methylprednisolone acetate, this medicinal product should be used during pregnancy only after a careful assessment of the benefit-risk ratio to the mother and fetus.

Corticosteroids readily cross the placenta. One retrospective study found an increased incidence of low birth weights in infants born of mothers receiving corticosteroids. In humans, the risk of low birth weight appears to be dose related and may be minimized by administering lower corticosteroid doses.

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Infants born of mothers who have received substantial doses of corticosteroids during pregnancy must be carefully observed and evaluated for signs of adrenal insufficiency, although neonatal adrenal insufficiency appears to be rare in infants who were exposed *in utero* to corticosteroids.

Cataracts have been observed in infants born to mothers treated with long-term corticosteroids during pregnancy.

There are no known effects of corticosteroids on labor and delivery.

Lactation
Corticosteroids are excreted in breast milk.

Corticosteroids distributed into breast milk may suppress growth and interfere with endogenous glucocorticoid production in nursing infants. This medicinal product should be used during breast feeding only after a careful assessment of the benefit-risk ratio to the mother and infant.

INTERACTION WITH OTHER MEDICINAL PRODUCTS AND OTHER FORMS OF INTERACTION
Methylprednisolone is a cytochrome P450 enzyme (CYP) substrate and is mainly metabolized by the CYP3A enzyme. CYP3A4 is the dominant enzyme of the most abundant CYP subfamily in the liver of adult humans. It catalyzes 6β-hydroxylation of steroids, the essential Phase I metabolic step for both endogenous and synthetic corticosteroids. Many other compounds are also substrates of CYP3A4, some of which (as well as other drugs) have been shown to alter glucocorticoid metabolism by induction (upregulation) or inhibition of the CYP3A4 enzyme (**Table 1**).

CYP3A4 INHIBITORS – Drugs that inhibit CYP3A4 activity generally decrease hepatic clearance and increase the plasma concentration of CYP3A4 substrate medications, such as methylprednisolone. In the presence of a CYP3A4 inhibitor, the dose of methylprednisolone may need to be titrated to avoid steroid toxicity (**Table 1**).

CYP3A4 INDUCERS – Drugs that induce CYP3A4 activity generally increase hepatic clearance, resulting in decreased plasma concentration of medications that are substrates for CYP3A4. Co-administration may require an increase in methylprednisolone dosage to achieve the desired result (**Table 1**).

CYP3A4 SUBSTRATES – In the presence of another CYP3A4 substrate, the hepatic clearance of methylprednisolone may be affected, with corresponding dosage adjustments required. It is possible that adverse events associated with the use of either drug alone may be more likely to occur with co-administration (**Table 1**).

NON-CYP3A4-MEDIATED EFFECTS – Other interactions and effects that occur with methylprednisolone are described in **Table 1** below.

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Table 1. Important drug or substance interactions/effects with methylprednisolone

Drug Class or Type - DRUG or SUBSTANCE	**Interaction or Effect**
Antibacterial - ISONIAZID	CYP3A4 INHIBITOR. In addition, there is a potential effect of methylprednisolone to increase the acetylation rate and clearance of isoniazid.
Antibiotic, Antitubercular - RIFAMPIN	CYP3A4 INDUCER
Anticoagulants (oral)	The effect of methylprednisolone on oral anticoagulants is variable. There are reports of enhanced as well as diminished effects of anticoagulants when given concurrently with corticosteroids. Therefore, coagulation indices should be monitored to maintain the desired anticoagulant effects.
Anticonvulsant - CARBAMAZEPINE	CYP3A4 INDUCER (and SUBSTRATE)
Anticonvulsants - PHENOBARBITAL - PHENYTOIN	CYP3A4 INDUCERS
Anticholinergics - NEUROMUSCULAR BLOCKERS	Corticosteroids may influence the effect of anticholinergics. 1) An acute myopathy has been reported with the concomitant use of high doses of corticosteroids and anticholinergics, such as neuromuscular blocking drugs. (See section WARNINGS, Musculoskeletal, for additional information.) 2) Antagonism of the neuromuscular blocking effects of pancuronium and vecuronium has been reported in patients taking corticosteroids. This interaction may be expected with all competitive neuromuscular blockers.
Anticholinesterases	Steroids may reduce the effects of anticholinesterases in myasthenia gravis.
Antidiabetics	Because corticosteroids may increase blood glucose concentrations, dosage adjustments of antidiabetic agents may be required.
Antiemetic - APREPITANT - FOSAPREPITANT	CYP3A4 INHIBITORS (and SUBSTRATES)
Antifungal - ITRACONAZOLE - KETOCONAZOLE	CYP3A4 INHIBITOR (and SUBSTRATE)
Antivirals - HIV-PROTEASE INHIBITORS	CYP3A4 INHIBITORS (and SUBSTRATES) 1) Protease inhibitors, such as indinavir and ritonavir, may increase plasma concentrations of corticosteroids. 2) Corticosteroids may induce the metabolism of HIV-protease inhibitors resulting in reduced plasma concentrations.
Aromatase inhibitor - AMINOGLUTETHIMIDE	Aminoglutethimide-induced adrenal suppression may exacerbate endocrine changes caused by prolonged glucocorticoid treatment.
Calcium Channel Blocker - DILTIAZEM	CYP3A4 INHIBITOR (and SUBSTRATE)
Contraceptives (oral) - ETHINYLESTRADIOL/NORETHINDRONE	CYP3A4 INHIBITOR (and SUBSTRATE)
- GRAPEFRUIT JUICE	CYP3A4 INHIBITOR
Immunosuppressant - CYCLOSPORINE	CYP3A4 INHIBITOR (and SUBSTRATE)

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Drug Class or Type - DRUG or SUBSTANCE	**Interaction or Effect**
	1) Mutual inhibition of metabolism occurs with concurrent use of cyclosporine and methylprednisolone, which may increase the plasma concentrations of either or both drugs. Therefore, it is possible that adverse events associated with the use of either drug alone may be more likely to occur upon co-administration. 2) Convulsions have been reported with concurrent use of methylprednisolone and cyclosporine.
Immunosuppressant - CYCLOPHOSPHAMIDE - TACROLIMUS	CYP3A4 SUBSTRATE
Macrolide Antibacterial - CLARITHROMYCIN - ERYTHROMYCIN	CYP3A4 INHIBITOR (and SUBSTRATE)
Macrolide Antibacterial - TROLEANDOMYCIN	CYP3A4 INHIBITOR
NSAIDs (non-steroidal anti-inflammatory drugs) - high-dose ASPIRIN (acetylsalicylic acid)	1) There may be increased incidence of gastrointestinal bleeding and ulceration when corticosteroids are given with NSAIDs. 2) Methylprednisolone may increase the clearance of high-dose aspirin, which can lead to decreased salicylate serum levels. Discontinuation of methylprednisolone treatment can lead to raised salicylate serum levels, which could lead to an increased risk of salicylate toxicity.
Potassium-depleting agents	When corticosteroids are administered concomitantly with potassium-depleting agents (i.e., diuretics), patients should be observed closely for development of hypokalemia. There is also an increased risk of hypokalemia with concurrent use of corticosteroids with amphotericin B, xanthenes, or beta2 agonists.

UNDESIRABLE EFFECTS

The following adverse reactions have been reported with the following contraindicated routes of administration:

Intrathecal/Epidural: Arachnoiditis, functional gastrointestinal disorder/bladder dysfunction, headache, meningitis, paraparesis/paraplegia, seizure, sensory disturbance.

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Table 2. Adverse Drug Reaction Table

System Organ Class (MedDRA v. 18.0)	Frequency not known (cannot be estimated from the available data)
Infections and infestations	Opportunistic infection, Infection, Peritonitis[#], Injection site infection.
Blood and lymphatic system disorders	Leukocytosis
Immune system disorders	Drug hypersensitivity, Anaphylactic reaction, Anaphylactoid reaction.
Endocrine disorders	Cushingoid, Hypothalamic pituitary adrenal axis suppression, Steroid withdrawal syndrome.
Metabolism and nutrition disorders	Metabolic acidosis, Sodium retention, Fluid retention, Alkalosis hypokalaemic, Dyslipidaemia, Glucose tolerance impaired, Increased requirements for insulin (or oral hypoglycemic agents in diabetics), Lipomatosis, Increased appetite (which may result in Weight increased).
Psychiatric disorders	Affective disorder (including Depressed mood, Euphoric mood, Affect lability, Drug dependence, Suicidal ideation), Psychotic disorder (including Mania, Delusion, Hallucination, and Schizophrenia), Mental disorder, Personality change, Confusional state, Anxiety, Mood swings, Abnormal behavior, Insomnia, Irritability.
Nervous system disorders	Epidural lipomatosis, Intracranial pressure increased (with Papilloedema [Benign intracranial hypertension]), Seizure, Amnesia, Cognitive disorder, Dizziness, Headache.
Eye disorders	Exophthalmos, Cataract, Glaucoma, rare instances of blindness associated with intralesional therapy around the face and head, Chorioretinopathy.
Ear and labyrinth disorders	Vertigo.
Cardiac disorders	Cardiac failure congestive (in susceptible patients).
Vascular disorders	Thrombosis; Hypertension, Hypotension.
Respiratory, thoracic and Mediastinal disorders	Pulmonary embolism; Hiccups.
Gastrointestinal disorders	Peptic ulcer (with possible Peptic ulcer perforation and Peptic ulcer haemorrhage), Intestinal perforation, Gastric haemorrhage, Pancreatitis, Oesophagitis ulcerative, Oesophagitis, Abdominal pain, Abdominal distension, Diarrhoea, Dyspepsia, Nausea.
Skin and subcutaneous tissue disorders	Angioedema, Hirsutism, Petechiae, Ecchymosis, Skin atrophy, Erythema, Hyperhidrosis, Skin striae. Rash, Pruritus, Urticaria, Acne, Skin hyperpigmentation, Skin hypopigmentation.
Musculoskeletal and connective tissue disorders	Muscular weakness, Myalgia, Myopathy, Muscle atrophy, Osteoporosis, Osteonecrosis, Pathological fracture, Neuropathic arthropathy, Arthralgia, Growth retardation.
Reproductive system and breast disorders	Menstruation irregular.
General disorders and administration site conditions	Abscess sterile, Impaired healing, Oedema peripheral, Fatigue, Malaise, Injection site reaction.
Investigations	Intraocular pressure increased, Carbohydrate tolerance decreased, Blood potassium decreased, Urine calcium increased, Alanine aminotransferase increased, Aspartate aminotransferase increased, Blood alkaline phosphatase increased, Blood urea increased, Suppression of reactions to skin tests.
Injury, poisoning and procedural complications	Spinal compression fracture, Tendon rupture (particularly of the Achilles tendon).

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[#] Peritonitis may be the primary presenting sign or symptom of a gastrointestinal disorder such as perforation, obstruction or pancreatitis (see section WARNINGS).

Overdosage
There is no clinical syndrome of acute overdosage with DEPO-MEDROL Sterile Aqueous Suspension (methylprednisolone acetate).

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

Methylprednisolone is dialyzable.

Effects on ability to drive and use machines
The effect of corticosteroids on the ability to drive or use machinery has not been systematically evaluated. Undesirable effects, such as dizziness, vertigo, visual disturbance and fatigue are possible after treatment with corticosteroids. If affected, patients should not drive or operate machinery.

POSOLOGY AND METHOD OF ADMINISTRATION
Because of possible physical incompatibilities, DEPO-MEDROL Sterile Aqueous Suspension (methylprednisolone acetate) should not be diluted or mixed with other solutions. Parenteral suspensions should be inspected visually for any foreign particulate matter and discoloration prior to administration whenever drug product and container permit.

Administration for Local Effect
Therapy with DEPO-MEDROL does not obviate the need for the conventional measures usually employed. Although this method of treatment will ameliorate symptoms, it is in no sense a cure and the hormone has no effect on the cause of the inflammation.

1. Rheumatoid and osteoarthritis. The dose for intra-articular administration depends upon the size of the joint and varies with the severity of the condition in the individual patient. In chronic cases, injections may be repeated at intervals ranging from one to five or more weeks depending upon the degree of relief obtained from the initial injection.

General guide for dosage

Size of Joint	Examples	Range of Dosage
Large	Knees Ankles Shoulders	20-80 mg
Medium	Elbows Wrists	10-40 mg
Small	Metacarpophalangeal Interphalangeal Sternoclavicular Acromioclavicular	4-10 mg

Procedure: It is recommended that the anatomy of the joint involved be reviewed before attempting intra-articular injection. In order to obtain the full anti-inflammatory effect, it is important that the injection be made into the synovial space. Employing the same sterile technique as for a lumbar puncture, a sterile 20 to 24 gauge needle (on a dry syringe) is quickly inserted into the synovial cavity. Procaine infiltration is elective. The aspiration of only a few drops of joint fluid proves the joint space has been entered by the needle.

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The injection site for each joint is determined by that location where the synovial cavity is most superficial and most free of large vessels and nerves.

With the needle in place, the aspirating syringe is removed and replaced by a second syringe containing the desired amount of DEPO-MEDROL. The plunger is then pulled outward slightly to aspirate synovial fluid and to make sure the needle is still in the synovial space. After injection, the joint is moved gently a few times to aid mixing of the synovial fluid and the suspension. The site is covered with a small sterile dressing.

Suitable sites for intra-articular injection are the knee, ankle, wrist, elbow, shoulder, phalangeal, and hip joints. Since difficulty is occasionally encountered in entering the hip joint, precautions should be taken to avoid any large blood vessels in the area. Joints not suitable for injection are those that are anatomically inaccessible, such as the spinal joints and those like the sacroiliac joints that are devoid of synovial space. Treatment failures are most frequently the result of failure to enter the joint space. Little or no benefit follows injection into surrounding tissue. If failures occur when injections into the synovial spaces are certain, as determined by aspiration of fluid, repeated injections are usually futile.

Local therapy does not alter the underlying disease process, and whenever possible comprehensive therapy including physiotherapy and orthopedic correction should be employed.

Following intra-articular corticosteroid therapy, care should be taken to avoid overuse of joints in which symptomatic benefit has been obtained. Negligence in this matter may permit an increase in joint deterioration that will more than offset the beneficial effects of the steroid.

Unstable joints should not be injected. Repeated intra-articular injection may in some cases result in instability of the joint. X-ray follow-up is suggested in selected cases to detect deterioration.

If a local anesthetic is used prior to injection of DEPO-MEDROL, the anesthetic package insert should be read carefully and all the precautions observed.

2. Bursitis. The area around the injection site is prepared in a sterile way and a wheal at the site made with 1 percent procaine hydrochloride solution. A 20- to 24-gauge needle attached to a dry syringe is inserted into the bursa and the fluid aspirated. The needle is left in place and the aspirating syringe changed for a small syringe containing the desired dose. After injection, the needle is withdrawn and a small dressing applied.

3. Miscellaneous: Ganglion, Tendinitis, Epicondylitis. In the treatment of conditions, such as tendinitis or tenosynovitis, care should be taken, following application of a suitable antiseptic to the overlying skin, to inject the suspension into the tendon sheath rather than into the substance of the tendon. The tendon may be readily palpated when placed on a stretch. When treating conditions, such as epicondylitis, the area of greatest tenderness should be outlined carefully and the suspension infiltrated into the area. For ganglia of the tendon sheaths, the suspension is injected directly into the cyst. In many cases, a single injection causes a marked decrease in the size of the cystic tumor and may effect disappearance. The usual sterile precautions should be observed, of course, with each injection.

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The dose in the treatment of the various conditions of the tendinous or bursal structures listed above varies with the condition being treated and ranges from 4 to 30 mg. In recurrent or chronic conditions, repeated injections may be necessary.

Injections for Local Effect in Dermatologic Conditions. Following cleansing with an appropriate antiseptic, such as 70% alcohol, 20 to 60 mg is injected into the lesion. It may be necessary to distribute doses ranging from 20 to 40 mg by repeated local injections in the case of large lesions. Care should be taken to avoid injection of sufficient material to cause blanching since this may be followed by a small slough. One to four injections are usually employed, the intervals between injections varying with the type of lesion being treated and the duration of improvement produced by the initial injection.

Administration for Systemic Effect
The intramuscular dosage will vary with the condition being treated. When a prolonged effect is desired, the weekly dose may be calculated by multiplying the daily oral dose by 7 and given as a singular intramuscular injection.

Dosage must be individualized according to the severity of the disease and response of the patient. For infants and children, the recommended dosage will have to be reduced, but dosage should be governed by the severity of the condition rather than by strict adherence to the ratio indicated by age or body weight.

Hormone therapy is adjunct to, and not a replacement for, conventional therapy.

Dosage must be decreased or discontinued gradually when the drug has been administered for more than a few days. The severity, prognosis and expected duration of the disease and the reaction of the patient to medication are primary factors in determining dosage. If a period of spontaneous remission occurs in a chronic condition, treatment should be discontinued. Routine laboratory studies, such as urinalysis, two-hour postprandial blood sugar, determination of blood pressure and body weight, and a chest X-ray should be made at regular intervals during prolonged therapy. Upper GI X-rays are desirable in patients with an ulcer history or significant dyspepsia.

In patients with the adrenogenital syndrome, a single intramuscular injection of 40 mg every two weeks may be adequate. For maintenance of patients with rheumatoid arthritis, the weekly intramuscular dose will vary from 40 to 120 mg. The usual dosage for patients with dermatologic lesions benefitted by systemic corticoid therapy is 40 to 120 mg of methylprednisolone acetate administered intramuscularly at weekly intervals for one to four weeks. In acute severe dermatitis due to poison ivy, relief may result within 8 to 12 hours following intramuscular administration of a single dose of 80 to 120 mg. In chronic contact dermatitis, repeated injections at 5 to 10 day intervals may be necessary. In seborrheic dermatitis, a weekly dose of 80 mg may be adequate to control the condition.

Following intramuscular administration of 80 to 120 mg to asthmatic patients, relief may result within 6 to 48 hours and persist for several days to two weeks.

If signs of stress are associated with the condition being treated, the dosage of the suspension should be increased. If a rapid hormonal effect of maximum intensity is required, the intravenous administration of highly soluble methylprednisolone sodium succinate is indicated.

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PHARMACOLOGICAL PROPERTIES

Pharmacodynamic properties

Methylprednisolone is a potent anti-inflammatory steroid. It has greater anti-inflammatory potency than prednisolone and less tendency than prednisolone to induce sodium and water retention.

Pharmacokinetic properties

Absorption:

One in-house study of eight volunteers determined the pharmacokinetics of a single 40 mg intramuscular dose of Depo-Medrol. The average of the individual peak plasma concentrations was 14.8 ± 8.6 ng/mL, the average of the individual peak times was 7.25 ± 1.04 hours, and the average area under the curve (AUC) was 1354.2 ± 424.1 ng/mL x hours (Day 1-21).

Distribution:

Methylprednisolone is widely distributed into the tissues, crosses the blood-brain barrier, and is secreted in breast milk. Its apparent volume of distribution is approximately 1.4 L/kg. The plasma protein binding of methylprednisolone in humans is approximately 77%.

Metabolism:

In humans, methylprednisolone is metabolized in the liver to inactive metabolites; the major ones are 20α-hydroxymethylprednisolone and 20β-hydroxymethylprednisolone. Metabolism in the liver occurs primarily via the CYP3A4. (For a list of drug interactions based on CYP3A4-mediated metabolism, see section **INTERACTION WITH OTHER MEDICINAL PRODUCTS AND OTHER FORMS OF INTERACTION**.)

Methylprednisolone, like many CYP3A4 substrates, may also be a substrate for the ATP-binding cassette (ABC) transport protein p-glycoprotein, influencing tissue distribution and interactions with other medicines.

Elimination:

The mean elimination half-life for total methylprednisolone is in the range of 1.8 to 5.2 hours. Total clearance is approximately 5 to 6 mL/min/kg. No dosing adjustments are necessary in renal failure.

Preclinical safety data

Based on conventional studies of safety pharmacology, repeated-dose toxicity, no unexpected hazards were identified. The toxicities seen in the repeated-dose studies are those expected to occur with continued exposure to exogenous adrenocortical steroids.

Carcinogenic potential:

Methylprednisolone has not been formally evaluated in rodent carcinogenicity studies. Variable results have been obtained with other glucocorticoids tested for carcinogenicity in mice and rats. However, published data indicate that several related glucocorticoids including budesonide, prednisolone, and triamcinolone acetonide can increase the incidence of hepatocellular adenomas and carcinomas after oral administration in drinking water to male rats. These tumorigenic effects occurred at doses which were less than the typical clinical doses on a mg/m^2 basis.

Mutagenic potential:

Methylprednisolone has not been formally evaluated for genotoxicity. However, methylprednisolone sulfonate, which is structurally similar to methylprednisolone, was not mutagenic with or without metabolic activation in *Salmonella typhimurium* at 250 to

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2,000 µg/plate, or in a mammalian cell gene mutation assay using Chinese hamster ovary cells at 2,000 to 10,000 µg/mL. Methylprednisolone suleptanate did not induce unscheduled DNA synthesis in primary rat hepatocytes at 5 to 1000 µg/mL. Moreover, a review of published data indicates that prednisolone farnesylate (PNF), which is structurally similar to methylprednisolone, was not mutagenic with or without metabolic activation in *Salmonella typhimurium* and *Escherichia coli* strains at 312 to 5,000 µg/plate. In a Chinese hamster fibroblast cell line, PNF produced a slight increase in the incidence of structural chromosomal aberrations with metabolic activation at the highest concentration tested 1,500 µg/mL.

Reproductive toxicity:
Corticosteroids have been shown to reduce fertility when administered to rats. Male rats were administered corticosterone at doses of 0, 10, and 25 mg/kg/day by subcutaneous injection once daily for 6 weeks and mated with untreated females. The high dose was reduced to 20 mg/kg/day after Day 15. Decreased copulatory plugs were observed, which may have been secondary to decreased accessory organ weight. The numbers of implantations and live fetuses were reduced.

Corticosteroids have been shown to be teratogenic in many species when given in doses equivalent to the human dose. In animal reproduction studies, glucocorticoids, such as methylprednisolone have been shown to increase the incidence of malformations (cleft palate, skeletal malformations), embryo-fetal lethality (e.g., increase in resorptions), and intra-uterine growth retardation.

HOW SUPPLIED
DEPO-MEDROL Sterile Aqueous Suspension is available in the following strength and package size:

40 mg per mL - in 1 mL vial.

Store at maximum temperature 30°C

HARUS DENGAN RESEP DOKTER

Reg. No. DKI7286100343A1

Manufactured by:
Pfizer Manufacturing Belgium NV, Puurs, Belgium

Imported by:
PT. Pfizer Indonesia,
Jakarta, Indonesia

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Leaflet kemasan: Informasi untuk pengguna

DEPO-MEDROL® 40 mg/ml

Metilprednisolon Asetat

Baca semua bagian leaflet ini dengan cermat sebelum mulai menggunakan obat ini karena berisi informasi penting bagi Anda.
- Simpan leaflet ini. Anda mungkin perlu membacanya kembali.
- Jika Anda memiliki pertanyaan lebih lanjut, tanyakan kepada dokter, apoteker, atau perawat Anda.
- Obat ini telah diresepkan hanya untuk Anda. Jangan memberikannya kepada orang lain. Obat ini dapat membahayakan mereka, sekalipun tanda-tanda penyakit mereka sama dengan Anda.
- Jika Anda mengalami efek samping apa pun, konsultasikan dengan dokter, apoteker, atau perawat Anda. Termasuk setiap kemungkinan efek samping yang tidak tercantum dalam leaflet ini. Lihat bagian 8.

Apa isi leaflet ini?
1. Nama produk
2. Bentuk sediaan
3. Keterangan produk
4. Apa kandungan obat ini?
5. Kekuatan obat
6. Apa kegunaan obat ini?
7. Berapa banyak dan seberapa sering obat ini dapat digunakan? Apa yang harus Anda lakukan jika Anda lupa untuk menggunakan obat ini?
8. Dalam situasi apa Anda tidak diizinkan menggunakan obat ini?
9. Efek yang tidak diinginkan
10. Apa saja obat lain atau makanan yang harus dihindari selama menggunakan obat ini?
11. Apa yang harus dilakukan jika ada dosis yang terlewat?
12. Bagaimana cara menyimpan obat ini?
13. Tanda-tanda dan gejala-gejala overdosis
14. Apa yang harus dilakukan jika Anda menggunakan lebih dari dosis yang dianjurkan?
15. Apa saja yang perlu diperhatikan saat menggunakan obat ini?
16. Kapan sebaiknya Anda berkonsultasi dengan dokter?
17. Nama produsen/importir/Pemegang Hak Pemasaran
18. Tanggal revisi
19. Peringatan khusus

1. Nama produk
DEPO-MEDROL®

2. Bentuk sediaan
Suspensi Dalam Air Steril**.**

3. Keterangan produk

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DEPO-MEDROL® Suspensi Dalam Air Steril mengandung metilprednisolon asetat. Metilprednisolon asetat termasuk dalam golongan obat yang disebut glukokortikoid. Metilprednisolon menghambat gejala inflamasi lokal (panas, bengkak, nyeri, kemerahan) dan reaksi alergi (hipersensitivitas). Obat ini memengaruhi banyak organ dan proses metabolik di dalam tubuh.

4. Apa kandungan obat ini?
Zat aktifnya adalah metilprednisolon asetat. Setiap vial berisi 40 mg metilprednisolon asetat.

5. Kekuatan obat
40 mg per ml – dalam vial 1 ml.

6. Apa kegunaan obat ini?
DEPO-MEDROL® digunakan untuk mengobati kelainan pada banyak sistem organ seperti kulit, paru, mata, saluran cerna, sistem saraf, sendi, dan darah. DEPO-MEDROL® bekerja dengan mengurangi inflamasi dan mengubah kemampuan alami tubuh untuk merespons saat respons imun tidak bekerja dengan baik. Obat ini juga digunakan untuk kondisi tertentu saat kelenjar adrenal tidak berfungsi dengan benar.

Dokter Anda mungkin meresepkan DEPO-MEDROL® karena alasan lain.

Tanyakan kepada dokter jika Anda memiliki pertanyaan apa pun mengenai alasan diresepkannya DEPO-MEDROL kepada Anda.

Obat ini hanya tersedia dengan resep dokter.

7. Berapa banyak dan seberapa sering obat ini dapat digunakan? Apa yang harus Anda lakukan jika Anda lupa untuk menggunakan obat ini?
Gunakan selalu DEPO-MEDROL® dengan tepat sesuai petunjuk dokter. Tanyakan kepada dokter atau apoteker jika Anda merasa tidak yakin.

DEPO-MEDROL® hanya dapat diberikan oleh dokter (atau oleh perawat untuk pemberian secara intramuskular) Dosis yang diberikan dan durasi pengobatan bergantung pada penyakitnya.

Dokter Anda akan menentukan seberapa sering dan berapa lama obat ini harus diberikan. Ikuti anjuran dokter Anda dengan tepat.

DEPO-MEDROL® dapat diberikan melalui beberapa cara berikut ini:
injeksi ke dalam otot (injeksi intramuskular);
injeksi ke dalam atau di dekat sendi (injeksi intraartikular atau periartikular);
injeksi ke dalam bursa, kantong kecil di antara tempat perlekatan tendon (injeksi intrabursa);
injeksi ke dalam lesi kulit (injeksi intralesi);
injeksi ke dalam jaringan lunak;

injeksi intraartikular.

DEPO-MEDROL® tidak dapat diberikan melalui rute lain selain yang disebutkan di atas.

8. Dalam situasi apa Anda tidak diizinkan menggunakan obat ini?
Jangan menggunakan DEPO-MEDROL®:

- Jika Anda mengalami **infeksi jamur** meluas (misalnya kandidiasis) yang tidak diobati.
- Jika Anda merasa pernah mengalami **reaksi alergi** (reaksi anafilaksis), atau jenis reaksi lainnya setelah diberi DEPO-MEDROL®, atau obat lainnya yang mengandung kortikosteroid atau bahan lainnya yang terkandung dalam obat ini. Reaksi alergi dapat menyebabkan ruam kulit atau kulit memerah, wajah atau bibir membengkak, atau sesak napas.
- DEPO-MEDROL® tidak untuk digunakan melalui rute administrasi intratekal.
- DEPO-MEDROL® tidak untuk digunakan melalui rute administrasi epidural.
- DEPO-MEDROL® tidak untuk digunakan melalui rute administrasi intravena.
- Jika Anda baru-baru ini telah, atau akan menerima **vaksinasi**.

Kehamilan dan menyusui
Jika Anda hamil, menduga bahwa diri Anda hamil, atau sedang merencanakan kehamilan, mintalah saran dari dokter atau apoteker Anda sebelum menggunakan obat ini, karena dapat memperlambat pertumbuhan janin. Terdapat risiko berat lahir rendah pada bayi; risiko ini dapat diminimalkan dengan menggunakan dosis efektif terendah kortikosteroid.

Katarak telah teramati pada bayi yang lahir dari ibu yang menjalani pengobatan kortikosteroid jangka panjang selama kehamilan.

Jika Anda sedang menyusui, mintalah saran kepada dokter atau apoteker Anda, karena sejumlah kecil obat kortikosteroid dapat masuk ke dalam ASI.

Mengemudi dan mengoperasikan mesin
Efek yang tidak diinginkan, seperti pusing, vertigo, gangguan penglihatan, dan kelelahan mungkin terjadi setelah pengobatan dengan kortikosteroid. Jika Anda mengalami kondisi tersebut di atas, jangan mengemudi atau mengoperasikan mesin.

9. Efek yang tidak diinginkan
Seperti semua obat-obatan yang ada, obat ini bisa menimbulkan efek samping, meskipun tidak semua orang mengalaminya. Dokter Anda akan memberikan obat ini untuk suatu kondisi yang jika tidak diobati dengan benar dapat bertambah serius.

Dalam kondisi medis tertentu, obat-obatan seperti DEPO-MEDROL® (steroid) tidak boleh dihentikan secara tiba-tiba. Jika Anda mengalami gejala mana pun berikut ini SEGERA dapatkan penanganan medis. Dokter selanjutnya akan memutuskan apakah Anda harus tetap menggunakan obat ini:

- **Reaksi alergi,** seperti ruam kulit, pembengkakan wajah, atau mengi dan kesulitan bernapas.
- **Pankreatitis**, sakit perut yang menyebar hingga ke punggung Anda, kemungkinan disertai dengan muntah, syok, dan hilang kesadaran.
- **Tukak yang pecah atau berdarah,** gejala-gejalanya meliputi sakit perut (khususnya jika terasa menyebar hingga ke punggung Anda), perdarahan saat BAB, feses berwarna hitam atau dengan bercak darah, dan/atau muntah darah.

- **Infeksi.** Obat ini dapat menyamarkan atau mengubah tanda-tanda dan gejala-gejala sejumlah infeksi, atau menurunkan resistansi terhadap infeksi, sehingga sulit untuk didiagnosis pada tahap awal. Gejalanya meliputi peningkatan suhu dan tidak enak badan. Gejala kambuhnya infeksi TB terdahulu dapat berupa batuk darah atau nyeri dada. Gejala infeksi malaria sebelumnya dapat mencakup menggigil dan demam. DEPO-MEDROL® juga dapat membuat Anda lebih cenderung mengalami infeksi berat.
- **Emboli paru** (bekuan darah dalam paru), gejalanya meliputi nyeri dada yang tajam dan muncul tiba-tiba, sesak napas, dan batuk darah.
- **Peningkatan tekanan dalam tengkorak** anak-anak (pseudotumour cerebri) dengan gejala-gejala meliputi muntah, kekurangan energi, dan mengantuk. Efek samping ini biasanya terjadi setelah pengobatan dihentikan.
- **Trombosis** (proses pembekuan yang berlebihan dalam pembuluh darah sehingga menghambat aliran darah).

Jika Anda mengalami salah satu efek samping berikut, atau merasa ada efek yang tidak wajar yang tidak disebutkan dalam leaflet ini, segera beri tahu dokter Anda.

Efek samping dapat terjadi dengan frekuensi tertentu yang dinyatakan sebagai berikut:

- *tidak diketahui*: frekuensinya tidak dapat diperkirakan dari data yang tersedia.

Darah, jantung, dan sirkulasi
not known
- Tekanan darah tinggi, gejalanya meliputi sakit kepala atau merasa tidak enak badan.
- Masalah pemompaan jantung (gagal jantung), gejalanya meliputi pergelangan kaki yang membengkak, kesulitan bernapas dan palpitasi (kesadaran denyut jantung) atau denyut jantung tidak teratur, denyut nadi yang tidak teratur, atau sangat cepat, atau lambat.
- Gejala tekanan darah rendah yang dapat meliputi pusing, pingsan, kepala terasa berat, penglihatan kabur, denyut jantung cepat atau tidak teratur (palpitasi), badan terasa lemah.
- Peningkatan jumlah sel darah putih (leukositosis).

Kandungan air dan garam dalam tubuh
tidak diketahui
- Pembengkakan dan tekanan darah tinggi yang disebabkan oleh peningkatan kadar air dan garam dalam tubuh.
- Kram dan spasme dikarenakan hilangnya kalium dari tubuh Anda. Dalam kasus yang jarang terjadi, hal ini dapat menyebabkan gagal jantung kongestif (saat jantung tidak dapat memompa dengan baik).

Sistem pencernaan
tidak diketahui
- Ulkus.
- Mual (merasa ingin muntah).
- Diare.
- Gangguan pencernaan.

- Perut kembung.
- Nyeri abdomen.
- Cegukan.

Telinga
tidak diketahui
- Merasa pusing atau seperti berputar (vertigo).

Mata
tidak diketahui
- Menonjolnya bola mata (eksoftalmus).
- Katarak (ditunjukkan dengan penglihatan yang tidak berfungsi).
- Glaukoma (meningkatnya tekanan di dalam mata, sehingga menyebabkan nyeri di dalam mata dan sakit kepala).
- Hilangnya penglihatan yang jarang terjadi dalam kasus injeksi ke dalam lesi pada area wajah atau kepala.
- Penglihatan kabur (korioretinopati).

Kelainan umum
tidak diketahui
- Abses steril
- Penyembuhan luka yang lambat.
- Merasa lelah atau tidak enak badan.
- Reaksi pada kulit di lokasi injeksi.

Sistem hormon dan metabolisme
tidak diketahui
- Melambatnya pertumbuhan normal pada bayi, anak-anak, dan remaja yang dapat bersifat permanen.
- Wajah berbentuk bulat atau bulan (sindrom Cushing).
- Haid tidak teratur pada perempuan.
- Meningkatnya selera makan dan kenaikan berat badan.
- Diabetes atau bertambah parahnya diabetes yang sudah diderita.
- Terapi yang berlangsung lama dapat menyebabkan penurunan kadar beberapa jenis hormon yang pada gilirannya dapat menyebabkan tekanan darah rendah dan pusing. Efek ini dapat berlangsung terus selama beberapa bulan.
- Kadar bahan kimia tertentu (enzim) yang disebut alanin transaminase, aspartat transaminase, dan alkalin fosfatase yang membantu tubuh untuk mencerna obat dan zat lain dalam tubuh Anda dapat mengalami peningkatan setelah menjalani pengobatan dengan kortikosteroid. Perubahan tersebut biasanya berskala kecil dan kadar enzim akan kembali normal setelah obat dibersihkan secara alami dari sistem peredaran darah Anda. Anda tidak akan merasakan gejala apa pun saat hal ini terjadi, tetapi akan muncul setelah Anda menjalani tes darah.
- Akumulasi jaringan lemak pada bagian tubuh yang terlokalisasi, dengan manifestasi yang berbeda, misalnya sakit punggung atau rasa lemah (dikarenakan epidural lipomatosis).

Sistem imun

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tidak diketahui
- Peningkatan kerentanan terhadap infeksi.
- Supresi reaksi tes kulit, seperti tes untuk tuberkulosis.

Otot dan tulang
tidak diketahui
- Tulang rapuh (tulang yang mudah retak).
- Kelemahan otot.
- Penyusutan otot.
- Tulang patah atau fraktur.
- Penurunan kepadatan tulang akibat sirkulasi darah yang buruk, hal ini menyebabkan nyeri di panggul.
- Tendon otot sobek yang menyebabkan nyeri dan/atau pembengkakan.
- Kram atau spasme otot.

Masalah saraf dan suasana hati
tidak diketahui
Steroid termasuk metilprednisolon dapat menyebabkan masalah kesehatan mental serius.
- Merasa depresi, termasuk munculnya pikiran untuk bunuh diri.
- Merasa euforia (mania) atau suasana hati yang naik turun.
- Merasa cemas, mengalami masalah tidur, kesulitan berpikir, atau merasa bingung dan kehilangan memori.
- Merasakan, melihat, atau mendengar hal-hal yang sesungguhnya tidak ada. Memiliki pemikiran yang aneh dan menakutkan, mengubah cara Anda bertindak, atau merasa kesepian.
- Kejang.

Kulit
tidak diketahui
- Jerawat.
- Lebam.
- Penipisan kulit (atrofi kulit).
- Gurat peregangan (striae kulit).
- Bercak ungu/merah kecil pada kulit.
- Bercak pucat atau lebih gelap pada kulit Anda, atau bercak menonjol dengan warna yang tidak biasa.
- Pertumbuhan rambut tubuh dan wajah yang berlebihan.
- Ruam, gatal, kaligata.
- Produksi keringat meningkat.

Kelainan vaskular
tidak diketahui
- Peningkatan bekuan darah.

Jika Anda mengalami efek samping apa pun yang tertera di atas, segera beri tahu dokter Anda.

Melaporkan efek samping
Jika Anda mengalami efek samping apa pun, konsultasikan dengan dokter, apoteker, atau perawat Anda. Termasuk setiap kemungkinan efek samping yang tidak tercantum dalam leaflet ini. Dengan melaporkan efek samping, Anda dapat membantu memberikan lebih banyak informasi perihal keamanan obat ini.

10. Apa saja obat lain atau makanan yang harus dihindari selama menggunakan obat ini?

Beri tahu dokter atau apoteker jika Anda meminum, baru saja meminum, atau mungkin meminum obat-obatan lain (termasuk yang diperoleh tanpa resep).

Hal ini dapat berbahaya atau memengaruhi cara kerja DEPO-MEDROL® atau obat lainnya:

- **Aminoglutetimid** atau **Siklofosfamid**–digunakan untuk mengobati kanker
- **Antikoagulan**–digunakan untuk 'mengencerkan' darah, seperti asenokumarol, fenindion, dan warfarin
- **Antikolinesterase–**digunakan untuk mengobati miastenia gravis (kondisi otot) seperti distigmin dan neostigmin
- **Antibiotik** (seperti eritromisin, klaritomisin, atau troleandomisin)
- **Antidiabetik**–obat-obatan yang digunakan untuk mengobati kadar gula darah tinggi
- **Antihipertensif**–obat-obatan yang digunakan untuk menurunkan tekanan darah
- **Aprepitant** dan **Fosaprepitant**–digunakan untuk mencegah mual dan muntah
- **Aspirin** dan obat-obatan antiinflamasi nonsteroid (disebut juga **OAINS**) seperti ibuprofen yang digunakan untuk mengobati nyeri ringan hingga sedang
- **Barbiturat, karbamazepin,** dan **fenitoin**–digunakan untuk mengobati epilepsi
- **Siklosporin**–digunakan untuk mengobati kondisi seperti artritis reumatoid berat, psoriasis berat, atau setelah menjalani transplantasi organ atau sumsum tulang
- **Digoksin**–digunakan untuk mengobati gagal jantung dan/atau denyut jantung tidak teratur
- **Diltiazem** atau **mibefradil**–digunakan untuk mengobati masalah jantung atau tekanan darah tinggi
- **Etinilestradiol** dan **noretisteron**–pil kontrasepsi
- **Antivirus** (seperti ritonavir, indinavir) yang digunakan untuk mengobati infeksi HIV
- **Isoniazid**–digunakan untuk mengobati infeksi bakteri
- **Ketokonazol** atau **itrakonazol**–digunakan untuk mengobati infeksi jamur
- **Mifepriston**–digunakan untuk mengakhiri kehamilan karena alasan medis
- **Pankuronium** atau **vekuronium**–atau obat-obatan lain yang disebut agen pemblokir neuromuskular, yang digunakan dalam beberapa prosedur pembedahan
- Agen penurun kalium–seperti **diuretik** (kadang-kadang disebut tablet air), **amfoterisin B, xanthene, atau agonis beta2** (misalnya obat-obatan yang digunakan untuk mengobati asma)
- **Rifampisin**–antibiotik yang digunakan untuk mengobati tuberkulosis (TB)
- **Takrolimus**–digunakan setelah transplantasi organ untuk mencegah penolakan organ
- **Vaksin**–beri tahu dokter Anda atau perawat jika Anda baru saja atau akan menjalani vaksinasi. Anda **tidak boleh** menerima vaksin 'hidup' saat menggunakan obat ini. Vaksin lain mungkin menjadi kurang efektif.

Jika Anda menggunakan pengobatan jangka panjang

Jika Anda sedang menjalani pengobatan untuk diabetes, tekanan darah tinggi, atau retensi air (edema), beri tahu dokter Anda karena ia mungkin perlu menyesuaikan dosis obat yang digunakan untuk mengobati kondisi ini.

Sebelum Anda menjalani operasi beri tahu dokter, dokter gigi, atau dokter anestesi Anda bahwa Anda sedang menggunakan DEPO-MEDROL®.

Jika Anda perlu menjalani tes yang dilakukan oleh dokter atau di rumah sakit maka penting bagi Anda untuk memberi tahu dokter atau perawat Anda bahwa Anda sedang menggunakan DEPO-MEDROL®. Obat ini dapat memengaruhi hasil sejumlah tes.

DEPO-MEDROL® bersama minuman
Jangan meminum jus buah jeruk limau gedang (grapefruit) saat menggunakan obat ini.

11. Apa yang harus dilakukan jika ada dosis yang terlewat?
Karena Anda akan menerima obat ini di bawah pengawasan medis yang ketat, kecil kemungkinannya dosis Anda akan terlewat. Akan tetapi, beri tahu dokter atau apoteker Anda jika Anda merasa ada dosis yang terlewat.

Jika Anda memiliki pertanyaan lebih lanjut mengenai penggunaan obat ini, tanyakan kepada dokter, apoteker, atau perawat.

12. Bagaimana cara menyimpan obat ini?
Jauhkan obat ini dari pandangan dan jangkauan anak-anak.

Jangan gunakan obat ini setelah melewati tanggal kedaluwarsa yang tertera pada labelnya. Tanggal kedaluwarsa mengacu pada hari terakhir bulan yang dimaksud.

Umur simpan: 36 bulan.

Simpan pada suhu maksimum 30 °C

Jangan buang obat melalui saluran pembuangan air atau bersama sampah rumah tangga.

13. Tanda-tanda dan gejala-gejala overdosis
Laporan adanya toksisitas akut dan/atau kematian setelah overdosis kortikosteroid tergolong jarang.

14. Apa yang harus dilakukan jika Anda menggunakan lebih dari dosis yang dianjurkan?
Jika Anda khawatir terlalu banyak menerima DEPO-MEDROL®, segera beri tahu dokter Anda atau petugas kesehatan lainnya.

15. Apa saja yang perlu diperhatikan saat menggunakan obat ini?
Konsultasikan dengan dokter atau apoteker Anda sebelum menggunakan obat ini jika Anda menderita salah satu kondisi berikut ini.

Dokter Anda mungkin perlu memantau pengobatan Anda dengan lebih saksama, mengubah dosis Anda, atau memberi Anda obat lainnya.

- **Cacar air, campak** atau infeksi mata karena **herpes**. Jika Anda merasa telah mengalami kontak dengan seseorang yang menderita cacar air, campak, atau herpes, dan Anda belum pernah terkena penyakit-penyakit tersebut, atau jika Anda tidak yakin apakah Anda pernah terkena sebelumnya.
- Depresi **berat** atau **depresi manik**. Ini termasuk mengalami depresi sebelum menggunakan obat-obatan steroid seperti DEPO-MEDROL®.
- **Diabetes**.
- **Epilepsi atau kejang**.
- **Glaukoma** (peningkatan tekanan di dalam mata) atau jika terdapat riwayat glaukoma di dalam keluarga, atau jika Anda menderita katarak.
- Hubungi dokter Anda jika Anda mengalami **penglihatan kabur atau gangguan penglihatan**.
- Anda baru-baru ini mengalami **serangan jantung**.
- **Masalah jantung**, termasuk gagal jantung atau infeksi jantung.
- **Hipertensi** (tekanan darah tinggi).
- **Hipotiroidisme** (tiroid yang kurang aktif).
- **Infeksi sendi**.
- Penyakit **Ginjal** atau **hati**.
- **Skleroderma** (disebut juga sebagai sklerosis sistemik, suatu kelainan autoimun), karena risiko komplikasi serius yang disebut krisis ginjal skleroderma dapat meningkat.
- **Gangguan otot** (nyeri atau lemah) pernah terjadi saat menggunakan obat-obatan steroid di waktu lalu.
- **Miastenia gravis** (suatu kondisi yang menyebabkan otot terasa lelah dan lemah).
- **Osteoporosis** (pengeroposan tulang).
- **Feokromositoma**(sejenis tumor langka pada jaringan kelenjar adrenal. Kelenjar adrenal terdapat di atas ginjal).
- **Abses kulit**.
- **Ulkus lambung, divertikulitis** (inflamasi dinding usus) atau masalah lambung atau usus lain yang bersifat serius.
- **Tromboflebitis**–masalah vena akibat trombosis (bekuan darah dalam pembuluh vena) yang menyebabkan flebitis (pembuluh vena mengalami kemerahan, pembengkakan, dan nyeri tekan).
- **Tuberkulosis** (TB) atau jika Anda pernah mengidap tuberkulosis di waktu lalu.
- **Stres yang tidak biasa**.
- **Penyakit Cushing** (kondisi yang disebabkan oleh kelebihan hormon kortisol dalam tubuh Anda).
- **Pankreatitis akut** (inflamasi pankreas).
- **Sindrom Lisis Tumor (SLT)** dapat terjadi setelah pengobatan terhadap kanker yang berkembang dengan cepat seperti leukemia dan limfoma (kanker darah) jenis tertentu atau tumor padat. Sel-sel tumor yang mati akan terurai dan mengeluarkan kandungannya ke dalam darah. Kondisi ini menyebabkan perubahan kimiawi tertentu di dalam darah yang dapat menyebabkan kerusakan organ. Organ terdampak antara lain adalah ginjal, jantung, dan hati yang dapat menyebabkan kejang otot, otot melemah, kebingungan, denyut jantung tidak teratur, hilangnya penglihatan atau gangguan penglihatan, dan sesak napas. Dokter akan memantau Anda dengan ketat, khususnya jika Anda berisiko tinggi mengalami sindrom lisis tumor.

16. Kapan sebaiknya Anda berkonsultasi dengan dokter?
Jika Anda memiliki pertanyaan lebih lanjut atau Anda mengalami situasi yang sama seperti yang tercantum dalam leaflet ini, konsultasikan dengan dokter, apoteker, atau perawat Anda.

17. Nama produsen/importir/Pemegang Hak Pemasaran
No. Reg. DKI7286100343A1

Diimpor oleh:
PT. Pfizer Indonesia
Jakarta, Indonesia

Diproduksi oleh:
Pfizer Manufacturing Belgium NV
Puurs, Belgium

18. Tanggal revisi
02/2023

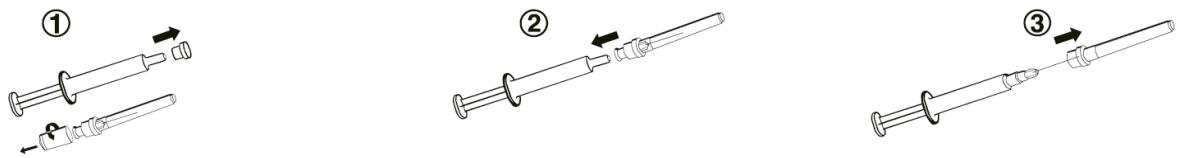
19. Peringatan khusus
HARUS DENGAN RESEP DOKTER

Informasi berikut ini ditujukan secara khusus untuk petugas kesehatan.

PETUNJUK PENGGUNAAN, UNTUK PETUGAS KESEHATAN
Sebelum diberikan, obat-obatan parenteral harus diperiksa secara visual untuk mendeteksi adanya partikel dan perubahan warna apa pun. Teknik aseptik yang ketat harus diterapkan untuk mencegah infeksi iatrogenik. Produk ini tidak ditujukan untuk administrasi secara intravena, intratekal, atau epidural. Jangan menggunakan vial ini untuk memberikan beberapa dosis. Setelah memberikan dosis yang diinginkan, suspensi yang tersisa harus dibuang.

CARA MENGGUNAKAN SYRINGE
Kocok dengan baik sebelum digunakan untuk mendapatkan suspensi yang merata.

1. Lepas tutupnya.
2. Pasang jarum pada syringe.
3. Lepaskan pelindung jarum. Syringe siap untuk digunakan.



Setelah digunakan, syringe harus dibuang dan tidak dapat digunakan kembali.

INKOMPATIBILITAS
Karena belum ada studi kompatibilitas, maka obat ini tidak boleh dicampur dengan obat-obatan lain.
PEMBERIAN

DISETUJUI BPOM: 31/05/2023 ID REG: EREG10024112300216

Depo-Medrol tidak boleh diberikan secara intravena, intratekal, atau epidural.
Depo-Medrol tidak boleh diinjeksikan ke mata atau hidung atau lokasi injeksi lainnya (kulit kepala, tenggorokan, ganglion sfenopalatina).

DISETUJUI BPOM: 31/05/2023 ID REG: EREG10024112300216