HYDROCORTISONE VALERATE- hydrocortisone valerate cream HYDROCORTISONE VALERATE- hydrocortisone valerate ointment Taro Pharmaceuticals U.S.A., Inc.

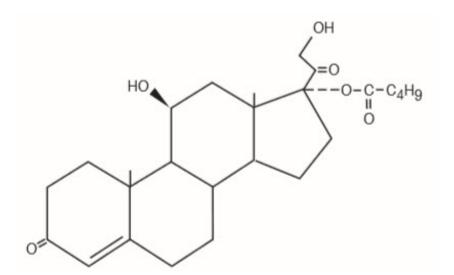
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Hydrocortisone Valerate Cream USP, 0.2% Hydrocortisone Valerate Ointment USP, 0.2%

Rx only For Dermatologic Use Only. Not for Ophthalmic Use.

#### DESCRIPTION

Hydrocortisone valerate cream USP, 0.2% and hydrocortisone valerate ointment USP, 0.2%, contain hydrocortisone valerate, 11,21-dihydroxy-17-[(1-oxopentyl)oxy]-(11 $\beta$ )-pregn-4-ene-3,20-dione, a synthetic corticosteroid for topical dermatologic use. The corticosteroids constitute a class of primarily synthetic steroids used topically as anti-inflammatory and antipruritic agents. Chemically, hydrocortisone valerate is C<sub>26</sub>H<sub>38</sub>O<sub>6</sub>. It has the following structural formula:



Hydrocortisone valerate has a molecular weight of 446.58. It is a white, crystalline solid, soluble in ethanol and methanol, sparingly soluble in propylene glycol and insoluble in water.

Each gram of hydrocortisone valerate cream USP, 0.2% contains 2 mg hydrocortisone valerate in a hydrophilic base composed of carbomer homopolymer type C, dibasic sodium phosphate, methylparaben, polyoxyl 2 stearyl ether, propylene glycol, purified water, sodium lauryl sulfate, steareth-100, stearyl alcohol and white petrolatum.

Each gram of hydrocortisone valerate ointment USP, 0.2% contains 2 mg hydrocortisone valerate in a hydrophilic base composed of carbomer homopolymer type B, dibasic sodium phosphate, methylparaben, mineral oil, polyoxyl 2 stearyl ether, propylene glycol, purified water, sodium lauryl sulfate, steareth-100, stearyl alcohol and

# CLINICAL PHARMACOLOGY

Like other topical corticosteroids, hydrocortisone valerate has anti-inflammatory, antipruritic and vasoconstrictive properties. The mechanism of the anti-inflammatory activity of the topical steroids, in general, is unclear. However, corticosteroids are thought to act by the induction of phospholipase  $A_2$  inhibitory proteins, collectively called lipocortins. It is postulated that these proteins control the biosynthesis of potent mediators of inflammation such as prostaglandins and leukotrienes by inhibiting the release of their common precursor arachidonic acid. Arachidonic acid is released from membrane phospholipids by phospholipase  $A_2$ .

#### Pharmacokinetics

The extent of percutaneous absorption of topical corticosteroids is determined by many factors including the vehicle and the integrity of the epidermal barrier. Occlusive dressings with hydrocortisone for up to 24 hours have not been demonstrated to increase penetration; however, occlusion of hydrocortisone for 96 hours markedly enhances penetration. Topical corticosteroids can be absorbed from normal intact skin. Inflammation and/or other disease processes in the skin may increase percutaneous absorption.

Studies performed with hydrocortisone valerate cream, 0.2% and hydrocortisone valerate ointment, 0.2% indicate that they are in the medium range of potency as compared with other topical corticosteroids.

#### INDICATIONS AND USAGE

Hydrocortisone valerate cream, 0.2% and hydrocortisone valerate ointment, 0.2% are medium potency corticosteroids indicated for the relief of the inflammatory and pruritic manifestations of corticosteroid responsive dermatoses in adult patients.

# CONTRAINDICATIONS

Hydrocortisone valerate cream, 0.2% and hydrocortisone valerate ointment, 0.2% are contraindicated in those patients with a history of hypersensitivity to any of the components of the preparations.

# PRECAUTIONS

#### General

Systemic absorption of topical corticosteroids can produce reversible hypothalamicpituitary-adrenal (HPA) axis suppression with the potential for glucocorticosteroid insufficiency after withdrawal of treatment. Manifestations of Cushing's syndrome, hyperglycemia, and glucosuria can also be produced in some patients by systemic absorption of topical corticosteroids while on treatment.

Patients applying a topical steroid to a large surface area or to areas under occlusion

should be evaluated periodically for evidence of HPA axis suppression. This may be done by using the ACTH stimulation, A.M. plasma cortisol, and urinary free cortisol tests.

Hydrocortisone valerate cream, 0.2% and hydrocortisone valerate ointment, 0.2% have produced mild, reversible adrenal suppression in adult patients when used under occlusion for 5 days, 15 grams twice a day over 25 to 60% body surface area or when used three times a day over 20 to 30% body surface area to treat psoriasis for 3-4 weeks.

If HPA axis suppression is noted, an attempt should be made to withdraw the drug, to reduce the frequency of application, or to substitute a less potent corticosteroid. Recovery of HPA axis function is generally prompt upon discontinuation of topical corticosteroids. Infrequently, signs and symptoms of glucocorticosteroid insufficiency may occur, requiring supplemental systemic corticosteroids. For information on systemic supplementation, see prescribing information for these products.

Pediatric patients may be more susceptible to systemic toxicity from equivalent doses due to their larger skin surface to body mass ratios (see **PRECAUTIONS — Pediatric Use**).

If irritation develops, hydrocortisone valerate cream, 0.2% or hydrocortisone valerate ointment, 0.2% should be discontinued and appropriate therapy instituted. Allergic contact dermatitis with corticosteroids is usually diagnosed by observing a failure to heal rather than noting a clinical exacerbation, as with most topical products not containing corticosteroids. Such an observation should be corroborated with appropriate diagnostic patch testing.

If concomitant skin infections are present or develop, an appropriate antifungal or antibacterial agent should be used. If a favorable response does not occur promptly, use of hydrocortisone valerate cream, 0.2% or hydrocortisone valerate ointment, 0.2% should be discontinued until the infection has been adequately controlled.

#### Information for Patients

Patients using topical corticosteroids should receive the following information and instructions:

- 1. This medication is to be used as directed by the physician. It is for external use only. Avoid contact with the eyes.
- 2. This medication should not be used for any disorder other than that for which it was prescribed.
- 3. The treated skin area should not be bandaged, otherwise covered or wrapped, so as to be occlusive unless directed by the physician.
- 4. Patients should report to their physician any signs of local adverse reactions.
- 5. Hydrocortisone valerate cream, 0.2% or hydrocortisone valerate ointment, 0.2% should not be applied in the diaper areas as diapers or plastic pants may constitute occlusive dressings (see **DOSAGE AND ADMINISTRATION**).
- 6. This medication should not be used on the face, underarms, or groin areas unless directed by the physician.
- 7. As with other corticosteroids, therapy should be discontinued when control is achieved. If no improvement is seen within 2 weeks, contact the physician.

# Laboratory Tests

The following tests may be helpful in evaluating patients for HPA axis suppression:

ACTH stimulation test A.M. plasma cortisol test Urinary free cortisol test

#### Carcinogenesis, Mutagenesis, and Impairment of Fertility

Long-term animal studies have not been performed to evaluate the carcinogenic potential of hydrocortisone valerate. Hydrocortisone valerate cream, 0.2% and hydrocortisone valerate ointment, 0.2% were shown to be non-mutagenic in the Ames-Salmonella/Microsome Plate Test. There are no studies which assess the effects of hydrocortisone valerate on fertility and general reproductive performance.

#### Pregnancy

Teratogenic Effects

Corticosteroids have been shown to be teratogenic in laboratory animals when administered systemically at relatively low dosage levels. Some corticosteroids have been shown to be teratogenic after dermal application in laboratory animals.

Dermal embryofetal developmental studies were conducted in rabbits and rats with hydrocortisone valerate cream, 0.2%. Hydrocortisone valerate cream, 0.2%, was administered topically for 4 hours/day, rather than the preferred 24 hours/day, during the period of organogenesis in rats (gestational days 5-16) and rabbits (gestational days 6-19). Topical doses of hydrocortisone valerate up to 9 mg/kg/day (54 mg/m<sup>2</sup>/day) were administered to rats and 5 mg/kg/day (60 mg/m<sup>2</sup>/day) were administered to rabbits. In the absence of maternal toxicity, a significant increase in delayed skeletal ossification in fetuses was noted at 9 mg/kg/day [2.5× the Maximum Recommended Human Dose (MRHD) based on body surface area (BSA) comparisons] in the rat study. No malformations in the fetuses were noted at 9 mg/kg/day (2.5× MRHD based on BSA comparisons) in the rat study. Indicators of embryofetal toxicity, significant decrease in fetal weight at 2 mg/kg/day (1× MRHD based on BSA) and a significant increase in postimplantation loss and embryo resorption at 5 mg/kg (3× MRHD based on BSA), were noted in the rabbit study. A significant increase in delayed skeletal ossification in fetuses was noted at 5 mg/kg/day (3× the MRHD based on BSA comparisons) in the rabbit study. Increased numbers of fetal malformations (e.g., cleft palate, omphalocele and clubbed feet) were noted at 5 mg/kg/day (3× MRHD based on BSA comparisons) in the rabbit study.

There are no adequate and well-controlled studies in pregnant women. Hydrocortisone valerate cream, 0.2% or hydrocortisone valerate ointment, 0.2% should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

#### **Nursing Mothers**

Systemically administered corticosteroids appear in human milk and could suppress growth, interfere with endogenous corticosteroid production, or cause other untoward effects. It is not known whether topical administration of corticosteroids could result in sufficient systemic absorption to produce detectable quantities in human milk. Because many drugs are excreted in human milk, caution should be exercised when hydrocortisone valerate cream, 0.2% or hydrocortisone valerate ointment, 0.2% is administered to a nursing woman.

# Pediatric Use

Safety of this product in pediatric patients has not been established. There is no data on adrenal suppression and/or growth suppression.

Because of a higher ratio of skin surface area to body mass, pediatric patients are at a greater risk than adults of HPA axis suppression and Cushing's syndrome when they are treated with topical corticosteroids. They are therefore also at a greater risk of adrenal insufficiency during and/or after withdrawal of treatment. Adverse effects including striae have been reported with inappropriate use of topical corticosteroids in fants and children (see **PRECAUTIONS**).

HPA axis suppression, Cushing's syndrome, linear growth retardation, delayed weight gain, and intracranial hypertension have been reported in children receiving topical corticosteroids. Manifestations of adrenal suppression in children include low plasma cortisol levels, and an absence of response to ACTH stimulation. Manifestations of intracranial hypertension include bulging fontanelles, headaches, and bilateral papilledema.

# Geriatric Use

Clinical studies of hydrocortisone valerate cream, 0.2% and hydrocortisone valerate ointment, 0.2% did not include sufficient numbers of subjects aged 65 and over to determine whether they respond differently from younger subjects. Other reported clinical experience has not identified differences in responses between the elderly and younger patients.

# ADVERSE REACTIONS

# Hydrocortisone Valerate Cream, 0.2%

The following local adverse reactions have been reported with topical corticosteroids, and they may occur more frequently with the use of occlusive dressings. These reactions are listed in an approximate decreasing order of occurrence: burning, itching, irritation, dryness, folliculitis, hypertrichosis, acneiform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, maceration of the skin, secondary infection, skin atrophy, striae, and miliaria.

In controlled clinical studies involving pediatric patients one month to 2 years of age (n=29), the incidence of adverse experiences, regardless of relationship to the use of hydrocortisone valerate cream, 0.2%, was approximately 21%. Reported reactions included stinging (10%), eczema (7%), fungal infection (3%), and gastrointestinal disorder (3%).

In controlled clinical studies involving pediatric patients 2 to 12 years of age (n=153), the incidence of adverse experiences, regardless of relationship to the use of hydrocortisone valerate cream, 0.2%, was approximately 10%. Reported reactions included stinging (3%), burning skin (2%), infection (Body as a Whole) (2%). Skin

irritation, eczema, pruritus, application site reaction, rash, rash maculopapular, and dry skin were all reported at incidences of approximately 1%.

#### Hydrocortisone Valerate Ointment, 0.2%

In controlled clinical trials, the total incidence of adverse reactions associated with the use of hydrocortisone valerate ointment, 0.2% was approximately 12%. These included worsening of condition (2%), transient itching (2%), irritation (1%) and redness (1%).

In controlled clinical studies involving pediatric atopic dermatitis patients 2 through 12 years of age (n=64), the incidence of adverse experiences was approximately 28.1%, which is higher than that seen in adult patients. Reported reactions included eczema (12.5%), pruritis (6%), stinging (2%), and dry skin (2%). Patients were not specifically evaluated for signs of atrophy (thinning, telangiectasia, erythema). No studies were performed to assess adrenal suppression and/or growth suppression.

The following additional local adverse reactions have been reported with topical corticosteroids, and they may occur more frequently with the use of occlusive dressings. These reactions are listed in an approximate decreasing order of occurrence: burning, dryness, folliculitis, acneiform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, secondary infection, skin atrophy, striae, and miliaria.

# OVERDOSAGE

Topically applied hydrocortisone valerate cream, 0.2% or hydrocortisone valerate ointment, 0.2% can be absorbed in sufficient amounts to produce systemic effects (see **PRECAUTIONS**).

# DOSAGE AND ADMINISTRATION

Hydrocortisone valerate cream USP, 0.2% or hydrocortisone valerate ointment USP, 0.2% should be applied to the affected area as a thin film two or three times daily depending on the severity of the condition.

As with other corticosteroids, therapy should be discontinued when control is achieved. If no improvement is seen within 2 weeks, reassessment of the diagnosis may be necessary.

Hydrocortisone valerate cream USP, 0.2% or hydrocortisone valerate ointment USP, 0.2% should not be used with occlusive dressings unless directed by a physician. Hydrocortisone valerate cream USP, 0.2% or hydrocortisone valerate ointment USP, 0.2% should not be applied in the diaper area if the patient requires diapers or plastic pants as these garments may constitute occlusive dressing.

# HOW SUPPLIED

Hydrocortisone valerate cream USP, 0.2%, is supplied in 15 g (NDC 51672-1290-1), 45 g (NDC 51672-1290-6), 60 g (NDC 51672-1290-3) tube sizes.

Hydrocortisone valerate ointment USP, 0.2% is supplied in 15 g (NDC 51672-1292-1), 45 g (NDC 51672-1292-6), 60 g (NDC 51672-1292-3) tube sizes.

#### STORAGE

Store at 20° to 25°C (68° to 77°F) [see USP Controlled Room Temperature].

Mfd. by: Taro Pharmaceutical Industries Ltd. Haifa Bay, Israel 2624761

Dist by: Taro Pharmaceuticals U.S.A., Inc. Hawthorne, NY 10532

Revised: June 2021 5201039-0621-4 63

#### PRINCIPAL DISPLAY PANEL - 15 g Tube Carton - 1290-1

NDC 51672-1290-1

15 g

Hydrocortisone Valerate Cream USP, 0.2%

FOR DERMATOLOGIC USE ONLY. NOT FOR OPHTHALMIC USE.

Rx only

Keep this and all medications out of the reach of children.

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# PRINCIPAL DISPLAY PANEL - 15 g Tube Carton - 1292-1

NDC 51672-1292-1

15 g

Hydrocortisone Valerate Ointment USP, 0.2%

FOR DERMATOLOGIC USE ONLY. NOT FOR OPHTHALMIC USE.

Rx only

Keep this and all medications out of the reach of children.

TARO



# **HYDROCORTISONE VALERATE**

hydrocortisone valerate cream

ingulocondisonic valenate creat					
Product Information					
Product Type	HUMAN PRESCRIPTION DRUG	ltem Cod	e (Source)	NDC:51	1672-1290
Route of Administration	TOPICAL				
Active Ingredient/Active	Mojety				
Active Ingredient/Active	Molety				
Ingi	redient Name		Basis of Str	ength	Strength
Hydrocortisone Valerate (UNII: UNII:W4X0X7BPJ)	68717P8FUZ) (Hydrocortisone -		Hydrocortisone Valerate		2 mg in 1 g
Inactive Ingredients					
	Ingredient Name				Strength
carbomer homopolymer type c	(allyl pentaerythritol crosslink	ed) (UNII: 40	93RCW27E)		
sodium phosphate, dibasic, an	hydrous (UNII: 22ADO53M6F)				
methylparaben (UNII: A2I8C7HI97	Г)				
steareth-2 (UNII: V56DFE46J5)					
propylene glycol (UNII: 6DC9Q16	57V3)				

water (UNII: 059QF0KO0R	)				
sodium lauryl sulfate (UNII: 368GB5141J)					
steareth-100 (UNII: 40H	5W9UM87)				
stearyl alcohol (UNII: 2K	R89I4H1Y)				
petrolatum (UNII: 4T6H12	2BN9U)				
<b>Product Character</b>	istics				
Color	WHITE (smooth white)	Score			
Shape		Size			
Flavor		Imprint Code			
Contains					

## Packaging

#	ltem Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:51672- 1290-1	1 in 1 CARTON	08/25/1998	
1		15 g in 1 TUBE; Type 0: Not a Combination Product		
2	NDC:51672- 1290-6	1 in 1 CARTON	08/25/1998	
2		45 g in 1 TUBE; Type 0: Not a Combination Product		
3	NDC:51672- 1290-3	1 in 1 CARTON	08/25/1998	
3		60 g in 1 TUBE; Type 0: Not a Combination Product		

# **Marketing Information**

Marketing	Application Number or Monograph	Marketing Start	Marketing End
Category	Citation	Date	Date
ANDA	ANDA075042	08/25/1998	

# HYDROCORTISONE VALERATE

hydrocortisone valerate ointment

Product Information						
Product Type	HUMAN PRESCRIPTION DRUG	Item Code (Source)	NDC:51672-1292			
Route of Administration	TOPICAL					
Active Ingredient/Active	Molety					

Ingredient Name	<b>Basis of Strength</b>	Strength
Hydrocortisone Valerate (UNII: 68717P8FUZ) (Hydrocortisone - UNII:W4X0X7BPJ)	Hydrocortisone Valerate	2 mg in 1 g

Inactive Ingredients	
Ingredient Name	Strength
carbomer homopolymer type b (allyl pentaerythritol crosslinked) (UNII: HHT01ZNK31)	
sodium phosphate, dibasic, anhydrous (UNII: 22ADO53M6F)	
methylparaben (UNII: A2I8C7HI9T)	
mineral oil (UNII: T5L8T28FGP)	
steareth-2 (UNII: V56DFE46J5)	
propylene glycol (UNII: 6DC9Q167V3)	
water (UNII: 059QF0KO0R)	
sodium lauryl sulfate (UNII: 368GB5141J)	
steareth-100 (UNII: 40H5W9UM87)	
stearyl alcohol (UNII: 2KR89I4H1Y)	
petrolatum (UNII: 4T6H12BN9U)	

# Product Characte:sticsColorWHITE (smooth white)ScoreShape-SizeFlavor-Imprint CodeContains--

#### Packaging

#	ltem Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:51672- 1292-1	1 in 1 CARTON	08/25/1998	
1		15 g in 1 TUBE; Type 0: Not a Combination Product		
2	NDC:51672- 1292-6	1 in 1 CARTON	08/25/1998	
2		45 g in 1 TUBE; Type 0: Not a Combination Product		
3	NDC:51672- 1292-3	1 in 1 CARTON	08/25/1998	
3		60 g in 1 TUBE; Type 0: Not a Combination Product		
Marketing Information				
	Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
AN	IDA	ANDA075043	08/25/1998	

Labeler - Taro Pharmaceuticals U.S.A., Inc. (145186370)

# Establishment

Name	Address	ID	/FEI		<b>Business Operations</b>
Taro Pharmaceuticals Inc.		20626	3295	ΜΑΝι	JFACTURE(51672-1290, 51672-1292)
Establishment					
Name	Ad	dress	ID/F	EI	<b>Business Operations</b>
Taro Pharmaceuticals Industries Lt	d.		6000720	)78	MANUFACTURE(51672-1290, 51672-1292)

Revised: 1/2023

Taro Pharmaceuticals U.S.A., Inc.