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# Desoximetasone

# Cream USP, 0.05%, Cream USP, 0.25%, Gel USP, 0.05% For topical use only. Not for oral, ophthalmic, or intravaginal use.

Descrimentation USP, 0.05%, descrimentasone cream USP, 0.25%, and descrimentasone gel USP, 0.05% contain the active synthetic corticosteroid descrimentasone. The topical corticosteroids constitute a class of primarily synthetic steroids used as anti-inflammatory and antipruritic agents.

Each gram of desoximetasone cream USP, 0.05% contains 0.5 mg of desoximetasone in an emoillent cream base consisting of cetostearyl alcohol, edetate disodium, isopropyl myristate, lanolin alcohol, mineral oil, purified water, and white petrolatum.

Each gram of desoximetasone cream USP, 0.25% contains 2.5 mg of desoximetasone in an emollient cre consisting of celosteapyl alcohol, isopropyl myristate, ianolin alcohol, mineral oil, purified water, and writte petrolatum. Each gram of desoximetasone gel LSP, 0.05% contains 0.5 mg of desoximetasone in a gel base consisting of carborner 940, docusate sodium, edetate disodium, isopropyl myristate, purified water, SDAG-3 95% alcohol, and trolamine. The chemical name of desoximetasone is Prepra-1, 4-diene-3, 20-dione, 9-fluoro-11, 21-dihydroxy-16-methy-(,118,16e)-. Desoximetasone has the molecular formula C<sub>22</sub>H<sub>29</sub>FO<sub>4</sub> and a molecular weight of 376.47. The CAS Registry Number 1, 292.67.2

is 382-67-2.

The structural formula is:

### CLINICAL PHARMACOLOGY

Topical corticosteroids share anti-inflammatory, antipruritic and vasoconstrictive actions.

The mechanism of anti-inflammatory activity of the topical corticosteroids is unclear. Various laboratory methods, including vasoconstrictor assays, are used to compare and predict potencies and/or clinical efficacies of the topical corticosteroids. There is some evidence to suggest that a recognizable correlation exists between vasoconstrictor potency and therapeutic efficacy in man.

The extent of percutaneous absorption of topical corticosteroids is determined by many factors including the vehicle

The execution percentages association of supract conditionations are executed by the experimental barrier, and the use of occlusive dressings.

Topical corticosteroids can be absorbed from normal infact skin. Inflammation and/or other disease processes in the skin increase perculaneous absorption. Occlusive dressings unbistantially increase the percutaneous absorption of topical conticosteroids. Thus, occlusive dressings may be a valuable therapeutic adjunct for treatment of resistant dermatioses. Once absorbed through the skin, topical corticosteroids are handled through pharmacokinetic pathways similar to sys temically administered corticosteroids. Corticosteroids are bound to plasma proteins in varying degrees. Corticosteroids

are metabolized primarily in the liver and are then excreted by the kidneys. Some of the topical corticosteroids and their metabolities are also excreted into the bile.

Pharmacokinetic studies in men with desoximetasone cream USP, 0.25% with tagged desoximetasone showed a total

Frantizocknieus studies in their will becombine to the color of 2.27 with a gigot use commensure showed a total of  $5.29 \pm 2.29$  secretion in urine  $(4.1\% \pm 2.3\%)$  and feece  $(1.1\% \pm 0.6\%)$  and no detectable level [limit of sensitivity]. 0.005 µg/mL) in the blood when it was applied topically on the back followed by occlusion for 24 hours. Seven days after application, no further radioactivity was detected in urine or feecs. The half-life of the material was  $1.5 \pm 2$  hours (for urine) and  $1.7 \pm 2$  hours (for feecs) between the third and fifth trial day. Studies with other similarly structured steroids have shown that predominant metabolite reaction occurs through conjugation to form the glucuronide and

### INDICATIONS AND USAGE

Desoximetasone cream USP, 0.05%, desoximetasone cream USP, 0.25%, and desoximetasone gel USP, 0.05% are indicated for the relief of the inflammatory and pruritic manifestations of corticosteroid-responsive dermatoses.

Desoximetasone cream USP, 0.05%, desoximetasone cream USP, 0.25%, and desoximetasone get USP, 0.05% are contraindicated in those patients with a history of hypersensitivity to any of the components of the preparation.

### WARNINGS

Keep out of reach of children.

### PRECAUTIONS

### General

Systemic absorption of topical corticosteroids can produce reversible hypothalamic-pituitary-adrenal (HPA) axis suppression with the potential for clinical glucocorticosteroid insufficiency. This may occur during treatment or upon withdrawal of the topical corticosteroid.

Because of the potential for systemic absorption, use of topical corticosteroids may require that patients be periodically evaluated for HPA axis suppression. Factors that predispose a patient using a topical corticosteroid to HPA axis suppression include the use of more potent steroids, use over large surface areas, use over prolonged periods, use under occlusion, use on an aftered skin barrier, and use in patients with liver failure. An ACTH stimulation test may be helpful in evaluating patients for HPA axis suppression. If HPA axis suppression is

documented, an attempt should be made to gradually withdraw the drug, to reduce the frequency of application, or to substitute a less potent steroid. Manifestations of adrenal insufficiency may require supplemental systemic cordicated ricks. Recovery of IPA axis function is generally prompt and complete upon discontinuation of object cordicated could be considered to the control of topical corticosteroids.

Use of more than one corticosteroid-containing product at the same time may increase the total systemic corticosteroid

Pediatric patients may be more susceptible to systemic toxicity from use of topical corticosteroids.

### Local Adverse Reactions with Topical Corticosteroids

Local adverse reactions may be more likely to occur with occlusive use, prolonged use or use of higher potency corticosteroids. Reactions may include atrophy, striae, telangiectasias, burning, litching, irritation, dryness, folliculitis, annelform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, secondary infection, and milliaria. Some local adverse reactions may be irreversible.

Allergic Contact Dermatitis with Topical Corticosteroids

Allergic contact dermatitis to any component of topical corticosteroids is usually diagnosed by a failure to heal rather than a clinical exacerbation. Clinical diagnosis of allergic contact dermatitis can be confirmed by patch testing.

#### Concomitant Skin Infections

Concomitant skin infections should be treated with an appropriate antimicrobial agent. If the infection persists, desoximetasone cream USP, 0.05%, desoximetasone cream USP, 0.25%, or desoximetasone gel USP, 0.05% should be discontinued until the infection has been adequately treated.

#### Information for the Patient

Patients using topical corticosteroids should receive the following information and instructions

- This medication is to be used as directed by the physician. It is for external use only. Avoid contact with the eyes. Patients should be advised not to use this medication for any disorder other than for which it was prescribed.
- The treated skin area should not be bandaged or otherwise covered or wrapped as to be occlusive unless directed by the physician.
- Patients should report any signs of local adverse reactions, especially under occlusive dressings.

  Other corticosteroid-containing products should not be used with desoximetasone cream USP, 0.05%, desoximetasone cream USP, 0.05%, or desoximetasone gel USP, 0.05% without first consulting with the physician.

As with other corticosteroids, therapy should be discontinued when control is achieved. If no improvement is seen within 4 weeks, contact the physician

#### aboratory Tests

The following tests may be helpful in evaluating the hypothalamic-pituitary-adrenal (HPA) axis suppression:

Urinary free cortisol test

ACTH stimulation test

Carcinogenesis, Mutagenesis, and Impairment of Fertility
Long-term animal studies have not been performed to evaluate the carcinogenic potential or the effect on fertility of

Long-term animal stu-topical corticosteroids. Desoximetasone was nonmutagenic in the Ames test

Pregnancy, Teratogenic Effects, Pregnancy Category C 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. Desoximetasone has been shown to be teratogenic and embryotoxic in mice, rats, and rabbits when given by subcuta-neous or dermal routes of administration in doses 3 to 30 times the human dose of desoximetasone cream USP, 0.25%

neous or derma routes of administration in doses 3 to 30 times the human dose of desoximetasone cream USP, 0.25%, and 15 to 150 times the human dose of desoximetasone cream USP, 0.05%, or desoximetasone get USP, 0.05%. There are no adequate and well-controlled studies in pregnant women on teratogenic effects from topically applied corticosteroids. Therefore, desoximetasone cream USP, 0.05%, so desoximetasone cream USP, 0.05%, or desoximetasone or desm USP, 0.25%, or desoximetasone or desm USP, 0.25%, or desoximetasone or desm USP, 0.25%, or desoximetasone desm USP, 0.25%, should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus. Drugs of this class should not be used extensively on pregnant patients, in large amounts, or for prolonged periods of time.

#### Nursing Mothers

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whether topical administration of corticosteroids could result in sufficient systemic absorption to produce detectable quantities in breast milk. Systemically administered corticosteroids are secreted into breast milk in r quantities not likely to have a deleterious effect on the infant. Nevertheless, caution should be exercised when topical corticosteroids are administered to a nursing woman.

Pediatric patients may demonstrate greater susceptibility to topical corticosteroid-induced HPA axis suppression and Cushing's syndrome than mature patients because of a larger skin surface area to body weight ratio.

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Hypothalamic-pitultary-adrenal (HPA) axis suppression, Cushing's syndrome, and intracranial hypertension have been reported in pediatric patients receiving topical corticosteroids. Manifestations of adrenal suppression in pediatric patients include linear growth retardation, delayed weight gain, low plasma cortisol levels, and absence of response to ACTH stimulation. Manifestations of intracranial hypertension include budging fortnateles, headaches, and bilateral papilledema. Administration of topical corticosteroids to pediatric patients should be limited to the least amount compatible with an effective therapeutic regimen. Chronic corticosteroid therapy may interfere with the growth and development of pediatric patients.

The following local adverse reactions are reported infrequently with topical corticosteroids, but 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 dermati-

Burning, inching, irritation, dryness, ioniculius, hypertricriosis, acheirorm erupions, hypobignientauori, periorai derinatisis, allergic contact dermatitis, maceration of the skin, secondary infection, skin atrophy, striae, and militaria. In controlled clinical studies the incidence of adverse reactions were low (0.8%) for desoximetasone cream USP, 0.05%, and included burning, folliculitis, and folliculo-pustular lesions. The incidence of adverse reactions were also 0.8% for desoximetasone cream USP, 0.05% and included pruritus, erythema, vesiculation, and burning sensation. The incidence of adverse reactions for desoximetasone gel USP, 0.05% was 0.3% with one subject reporting stinging and burning at the site of application

# OVERDOSAGE

applied corticosteroids can be absorbed in sufficient amounts to produce systemic effects (see PRECAUTIONS).

### DOSAGE AND ADMINISTRATION

Apply a thin film of desoximetasone cream USP, 0.05%, desoximetasone cream USP, 0.25%, or desoximetasone gel USP, 0.05% to the affected skin areas twice daily. Rub in gently.

Desoximetasone cream USP, 0.05% is supplied in: 15 gram (NDC 51672-1271-1), 60 gram (NDC 51672-1271-3), and 100 gram (NDC 51672-1271-7) tubes. Desoximetasone cream USP, 0.25% is supplied in:

15 gram (NDC 51672-1270-1), 60 gram (NDC 51672-1270-3), and 100 gram (NDC 51672-1270-7) tubes. Desoximetasone gel USP, 0.05% is supplied in:

15 gram (NDC 51672-1261-1) and 60 gram (NDC 51672-1261-3) tubes. Store at controlled room temperature between 20° to 25°C (68° to 77°F), excursions permitted to 15° to 30°C (59° to 86°F). [See USP Controlled Room Temperature]

Mfd. by: Taro Pharmaceuticals Inc., Brampton, Ontario, Canada L6T 1C1 Dist. by: **Taro Pharmaceuticals U.S.A., Inc.**, Hawthorne, NY 10532

Revised: March, 2011

# Topicort®

PK-5834-2

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one Cream USP) o.o5% , (Desoximetasone Cream USP) o.25% , (Desoximetasone Gel USP) o.o5%

For topical use only. Not for oral, ophthalmic, or intravaginal use. Rx only

# DESCRIPTION

(desoximetasone cream USP) 0.05%, Topicort® (desoximetasone cream USP) 0.25%, Topicort<sup>©</sup> and Topicort® (desoximetasone gel USP) 0.05% contain the active synthetic corticosteroid desoximetasone. The topical corticosteroids constitute a class of primarily synthetic steroids used as anti-inflammatory and antipruritic agents.

Each gram of Topicort® (desoximetasone cream USP) 0.05% contains 0.5 mg of desoximetasone in an emollient cream

base consisting of cetostearyl alcohol, edetate disodium, isopropyl myristate, lanolin alcohol, mineral oil, purified water, and white petrolatum

Each gram of Topicort® (desoximetasone cream USP) 0.25% contains 2.5 mg of desoximetasone in an emollient cream base consisting of cetostearyl alcohol, isopropyl myristate, lanclin alcohol, mineral oil, purified water, and white petrolatum. Each gram of Topicort® (desoximetasone gel USP) 0.05% contains 0.5 mg of desoximetasone in a gel base consisting of carborner 940, docusate sodium, delated isoximum, isopropyl myristate, purified water, SQAG-3 95% alcohol, and tolamine. The chemical name of desoximetasone is Pregna-1, 4-diene-3, 20-dione, 9-fluoro-11, 21-dihydroxy-16-methyl-.(11B.16a)-.

asone has the molecular formula  $C_{22}H_{29}FO_4$  and a molecular weight of 376.47. The CAS Registry Number is 382-67-2.

e structural formula is:

#### CLINICAL PHARMACOLOGY

Topical corticosteroids share anti-inflammatory, antipruritic and vasoconstrictive actions.

The mechanism of anti-inflammatory activity of the topical corticosteroids is unclear. Various laboratory methods including vasoconstrictor assays, are used to compare and predict potencies and/or clinical efficacies of the topical corticosteroids. There is some evidence to suggest that a recognizable correlation exists between vasoconstrictor potency and therapeutic efficacy in man.

#### Pharmac akingtics

The extent of percutaneous absorption of topical corticosteroids is determined by many factors including the vehicle, the integrity of the epidermal barrier, and the use of occlusive dressings. Topical corticosteroids can be absorbed from normal intact skin. Inflammation and/or other disease processes in the skin

increase percutaneous absorption. Occlusive dressings substantially increase the percutaneous absorption of topical corticostercids. Thus, occlusive dressings may be a valuable therapeutic adjunct for treatment of resistant dermatoses. Once absorbed through the skin, topical corticosteroids are handled through pharmacokinetic pathways similar to systemically administered corticosteroids. Corticosteroids are bound to plasma proteins in varying degrees. Corticoster are metabolized primarily in the liver and are then excreted by the kidneys. Some of the topical corticosteroids and their metabolites are also excreted into the bile.

Interactions are also accrete into the order. Pharmacokinetic studies in men with Topicort® (descrimetasone cream USP) 0.25% with tagged descrimetasone showed a total of  $5.2\% \pm 2.9\%$  excretion in urine  $(4.1\% \pm 2.3\%)$  and feces  $(1.1\% \pm 0.6\%)$  and no detectable level (limit of sensitivity:  $0.005 \,\mu$ g/ml.) in the blood when it was applied topically on the back followed by occlusion for 24 hours. Seven days after application, no further radioactivity was detected in urine or feces. The half-life of the material was  $15 \pm 2$  hours (for urine) and  $17 \pm 2$  hours (for feces) between the third and fifth trial day. Studies with other similarly structured steroids have shown that predominant metabolite reaction occurs through conjugation to form the alucuronide and sulfate ester.

## INDICATIONS AND USAGE

Tropicorfé (Besoximetasone cream USP) 0.05%, Topicorfé (desoximetasone cream USP) 0.25%, and Topicorfé (desoximetasone gel USP) 0.05% are indicated for the relief of the inflammatory and pruritic manifestations of corticosteroid-responsive dermatoses.

### CONTRAINDICATIONS

Topicort® (descorimetasone cream USP) 0.05%, Topicort® (descorimetasone cream USP) 0.25%, and Topicort® (descorimetasone gel USP) 0.05% are contraindicated in those patients with a history of hypersensitivity to any of the components of the preparation.

### WARNINGS

Keep out of reach of children.

### PRECAUTIONS

# General

Systemic absorption of topical corticosteroids can produce reversible hypothalamic-pituitary-adrenal (HPA) axis sup-pression with the potential for clinical glucocorticosteroid insufficiency. This may occur during treatment or upon withdrawal of the topical corticosteroid.

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An ACTH stimulation test may be helpful in evaluating patients for HPA axis suppression. If HPA axis suppression is documented, an attempt should be made to gradually withdraw the drug, to reduce the frequency of application, or to substitute a less potent steroid. Manifestations of adrenal insufficiency may require supplemental systemic corticoste-roids. Recovery of HPA axis function is generally prompt and complete upon discontinuation of topical corticosteroids. Cushing's syndrome, hyperglycemia, and unmasking of latent diabetes mellitus can also result from systemic absorption of topical corticosteroids.

Use of more than one corticosteroid-containing product at the same time may increase the total systemic corticosteroid exposure.

Pediatric patients may be more susceptible to systemic toxicity from use of topical corticosteroids.

### Local Adverse Reactions with Topical Corticosteroids

Local adverse reactions may be more likely to occur with occlusive use, prolonged use or use of higher potency cortico-steroids. Reactions may include atrophy, striae, telanglectasias, burning, itching, irritation, dryness, folliculitis, acnelform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, secondary infection, and miliaria. Some local adverse reactions may be irreversible.

# Allergic Contact Dermatitis with Topical Corticoster

Allergic contact dermatitis to any component of topical corticosteroids is usually diagnosed by a failure to heal rather

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than a clinical exacerbation. Clinical diagnosis of allergic contact dermatitis can be confirmed by patch testing.

#### Concomitant Skin Infections

Concomitant is in infections should be treated with an appropriate antimicrobial agent. If the infection persists, Topicort<sup>®</sup> (desoximetasone cream USP) 0.05%, Topicort<sup>®</sup> (desoximetasone cream USP) 0.25%, or Topicort<sup>®</sup> (desoximetasone gel USP) 0.05% should be discontinued until the infection has been adequately t eated.

### Information for the Patient

Patients using topical corticosteroids should receive the following information and instructions

- This medication is to be used as directed by the physician. It is for external use only. Avoid contact with the eyes, Patients should be advised not to use this medication for any disorder other than that for which it was prescribed
- 3. The treated skin area should not be bandaged or otherwise covered or wrapped so as to be occlusive unless directed by

- Patients should report any signs of local adverse reactions, especially under occlusive dressings.

  Other corticosteroid-containing products should not be used with Topicort® (desoximetasone cream USP) 0.05%, Topicort® (desoximetasone cream USP) 0.25%, or Topicort® (desoximetasone gel USP) 0.05% without first consulting with the physician

As with other corticosteroids, therapy should be discontinued when control is achieved, If no improvement is seen within 4 weeks, contact the physician.

### Laboratory Tests

The following tests may be helpful in evaluating the hypothalamic-pituitary-adrenal (HPA) axis suppression: Urinary free cortisol test

ACTH stimulation test

Carcinogenesis, Mutagenesis, and Impairment of Fertility
Long-term animal studies have not been performed to evaluate the carcinogenic potential or the effect on fertility of topical corticosteroids. Desoximetasone was nonmutagenic in the Ames test.

Pregnancy. Teratogenic Effects. Pregnancy Category C 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. Desoximetasone has been shown to be teratogenic and embryotoxic in mice, rats, and rabbits when given by subcutaneous or dermal routes of administration in doses 3 to 30 times the human dose of Topicont® (descoulmetasone crean USP) 0.25% and 15 to 150 times the human dose of Topicont® (descoulmetasone cream USP) 0.05%, or Topicont® imetasone cream (desoximetasone gel USP) 0.05%.

There are no adequate and well-controlled studies in pregnant women on teratogenic effects from topically app corticosteroids. Therefore, Topicort® (desoximetasone cream USP) 0.05%, Topicort® (desoximetasone cream USP) 0.25%, or Topicort® (desoximetasone gel USP) 0.05%, should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus. Drugs of this class should not be used extensively on pregnant patients, in large amounts, or for prolonged periods of time.

## **Hursing Mothers**

It is not known whether topical administration of corticosteroids could result in sufficient systemic absorption to produce detectable quantities in breast milk. Systemically administered corticosteroids are secreted into breast milk in quantities not likely to have a deleterious effect on the infant. Nevertheless, caution should be exercised when topical corticosteroids are administered to a nursing woman.

# Pediatric IIse

Pediatric patient Podiatric patients may demonstrate greater susceptibility to topical corticosteroid-induced HPA axis suppression and Cushing's syndrome than mature patients because of a larger skin surface area to body eight ratio.

Hypothalamic-pituitary-adrenal (HPA) axis suppression, Cushing's syndrome, and intracranial hypertension have been reported in pediatric patients receiving topical corticosteroids. Manifestations of adrenal suppression in pediatric patients include linear growth retardation, delayed weight gain, low plasma cortisol levels, and absence of response to ACTH stimulation. Manifestations of intracranial hypertension include builging fortanelles, headaches, and bilateral papilledema. Administration of topical corticostercids to pediatric patients should be limited to the least amount compatible with an effective therapeutic regimen. Chronic corticosteroid therapy may interfere with the growth and development of pediatric patients.

### ADVERSE REACTIONS

The following local adverse reactions are reported infrequently with topical corticosteroids, but may occur more fre quently with the use of occlusive dressings. These reactions are listed in an approximate decreasing order of occurrence: Burning, ltching, irritation, dryness, folliculitis, hypertrichosis, acneiform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, r aceration of the skin, secondary infection, skin atrophy, striae, and mil

In controlled clinical studies the incidence of adverse reactions were low (0.8%) for Topicort® (desoximetasone cream USP) 0.25%, and included burning, folliculitis, and folliculo-pustular lesions. The incidence of adverse reactions were also 0.8% for Topicort® (desoximetasone cream USP) 0.05% and included pruritus, erythema, vesiculation, and burning sensation. The incidence of adverse reactions for Topicort® (descrimetasone gel USP), 0.05% was 0.3% with one subject reporting stinging and burning at the site of application.

### OVERDOSAGE

Topically applied corticosteroids can be absorbed in sufficient amounts to produce systemic effects (see PRECAUTIONS).

# DOSAGE AND ADMINISTRATION

Apply a thin film of Topicort® (descoximetasone cream USP) 0.05%, Topicort® (descoximetasone cream USP) 0.25%, or Topicort® (descoximetasone gel USP) 0.05% to the affected skin areas twice daily. Rub in gently.

Topicort® (desoximetasone cream USP) 0.05% is supplied in: 5 gram tubes for physician samples, 15 gram (NDC 51672-5205-1), 60 gram (NDC 51672-5205-3) and 100 gram (NDC 51672-5205-7) tubes.

Topicort® (descximetasone cream USP) 0.25% is supplied in: 5 gram tubes for physician samples, 15 gram (NDC 51672-5204-1), 60 gram (NDC 51672-5204-3) and 100 gram (NDC 51672-5204-7) tubes. Topicort® (desoximetasone gel USP) 0.05% is supp

5 gram tubes for physician samples, 15 gram (NDC 51672-5202-1) and 60 gram (NDC 51672-5202-3) tubes.

Store at controlled room temperature between 20° to 25°C (68° to 77°F), excursions permitted to 15° to 30°C (59° to 86°F). [See USP Controlled Room Temperature]

Mfd. by: Taro Pharmaceuticals Inc., Brampton, Ontario, Canada L6T 1C1
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/s/

BEVERLY WEITZMAN
12/30/2011

JOHN F GRACE 01/03/2012