#### HIGHLIGHTS OF PRESCRIBING INFORMATION

These highlights do not include all the information needed to use  $PREZCOBIX^{\otimes}$  safely and effectively. See full prescribing information for PREZCOBIX.

**PREZCOBIX** (darunavir and cobicistat) tablets, for oral use Initial U.S. Approval: 2015

RECENT MAJOR CHANGES	
Dosage and Administration (2.5)	06/2018

-----INDICATIONS AND USAGE------

PREZCOBIX is a two-drug combination of darunavir, a human immunodeficiency virus (HIV-1) protease inhibitor, and cobicistat, a CYP3A inhibitor, and is indicated for the treatment of HIV-1 infection in treatmentnaïve and treatment-experienced adults with no darunavir resistanceassociated substitutions (V11I, V32I, L33F, I47V, I50V, I54L, I54M, T74P, L76V, I84V, L89V). (1)

#### -----DOSAGE AND ADMINISTRATION------

<u>Recommended dosage:</u> One tablet taken once daily with food. (2.1) <u>Testing Prior to Initiation:</u> HIV genotypic testing is recommended for antiretroviral treatment experienced patients. Assess estimated creatinine clearance in all patients prior to starting PREZCOBIX. When used with tenofovir DF: Assess urine glucose and urine protein at baseline and monitor creatinine clearance, urine glucose, and urine protein. Monitor serum phosphorus in patients with or at risk for renal impairment. (2.2)

-----DOSAGE FORMS AND STRENGTHS------

Tablets: 800 mg of darunavir and 150 mg of cobicistat. (3)

#### ----CONTRAINDICATIONS---

PREZCOBIX is contraindicated in patients receiving certain co-administered drugs for which altered plasma concentrations are associated with serious and/or life-threatening events or loss of therapeutic effect. (4, 7.2)

#### -----WARNINGS AND PRECAUTIONS------

- Drug-induced hepatitis (e.g., acute hepatitis, cytolytic hepatitis), liver injury, including some fatalities can occur with PREZCOBIX. Monitor liver function before and during therapy, especially in patients with underlying chronic hepatitis, cirrhosis, or in patients who have pre-treatment elevations of transaminases. (5.1)
- Skin reactions ranging from mild to severe, including Stevens-Johnson Syndrome, toxic epidermal necrolysis, drug rash with eosinophilia and

#### FULL PRESCRIBING INFORMATION: CONTENTS\*

#### 1 INDICATIONS AND USAGE

2

- DOSAGE AND ADMINISTRATION
- 2.1 Recommended Dosage
- 2.2 Testing Prior to Initiation of PREZCOBIX
- 2.3 Not Recommended in Severe Renal Impairment
- 2.4 Not Recommended in Severe Hepatic
- Impairment
- 2.5 Not Recommended During Pregnancy

#### 3 DOSAGE FORMS AND STRENGTHS

4 CONTRAINDICATIONS

#### 5 WARNINGS AND PRECAUTIONS

- 5.1 Hepatotoxicity
- 5.2 Severe Skin Reactions
- 5.3 Effects on Serum Creatinine
- 5.4 New Onset or Worsening Renal Impairment
- When Used With Tenofovir Disoproxil Fumarate 5.5 Risk of Serious Adverse Reactions or Loss of Virologia Response Due to Due to Due to
- Virologic Response Due to Drug Interactions 5.6 Antiretrovirals Not Recommended
- 5.7 Sulfa Allergy
- 5.8 Diabetes Mellitus/Hyperglycemia
- 5.9 Fat Redistribution
- 5.10 Immune Reconstitution Syndrome
- 5.11 Hemophilia

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#### 6 ADVERSE REACTIONS

6.1 Clinical Trials Experience

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- 6.2 Postmarketing Experience
- 7 DRUG INTERACTIONS

systemic symptoms and acute generalized exanthematous pustulosis, can occur with PREZCOBIX. Discontinue treatment if severe reaction develops. (5.2)

- When PREZCOBIX is used in combination with a tenofovir disoproxil fumarate (tenofovir DF) containing regimen, cases of acute renal failure and Fanconi syndrome have been reported. (5.4)
- PREZCOBIX is not recommended in combination with other antiretroviral drugs that require pharmacokinetic boosting. (5.6)
- Monitor in patients with a known sulfonamide allergy. (5.7)
  Patients receiving PREZCOBIX may develop new onset or
- exacerbations of diabetes mellitus/hyperglycemia (5.8), redistribution/accumulation of body fat (5.9), and immune reconstitution syndrome. (5.10)
- Patients with hemophilia may develop increased bleeding events. (5.11)
- ADVERSE REACTIONS
   The most common adverse reactions to darunavir, a component of PREZCOBIX (incidence greater than or equal to 5%) of at least moderate severity (greater than or equal to Grade 2) were diarrhea, nausea, rash, headache, abdominal pain, and vomiting. (6.1)

#### To report SUSPECTED ADVERSE REACTIONS, contact Janssen Products, LP at 1-800-JANSSEN (1-800-526-7736) or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch.

#### -----DRUG INTERACTIONS------

• Co-administration of PREZCOBIX with other drugs can alter the concentration of other drugs and other drugs may alter the concentrations of darunavir or cobicistat. Consult the full prescribing information prior to and during treatment for potential drug interactions. (4, 5.6, 7, 12.3)

#### ------USE IN SPECIFIC POPULATIONS------

- Pregnancy: PREZCOBIX is not recommended in pregnant women due to substantially lower exposures of darunavir and cobicistat during pregnancy. (8.1, 12.3)
- Lactation: Women infected with HIV-1 should be instructed not to breastfeed due to the potential for HIV transmission. (8.2)

#### See 17 for PATIENT COUNSELING INFORMATION and FDAapproved patient labeling.

Revised: 06/2018

- 7.1 Potential for PREZCOBIX to Affect Other Drugs
- 7.2 Potential for Other Drugs to Affect PREZCOBIX
- 7.3 Established and Other Potentially Significant Drug Interactions
- 7.4 Drugs without Clinically Significant Interactions with PREZCOBIX
- 8 USE IN SPECIFIC POPULATIONS
  - 8.1 Pregnancy
  - 8.2 Lactation
  - 8.4 Pediatric Use
  - 8.5 Geriatric Use
  - 8.6 Hepatic Impairment
  - 8.7 Renal Impairment
- 10 OVERDOSAGE
- 11 DESCRIPTION

#### 12 CLINICAL PHARMACOLOGY

- 12.1 Mechanism of Action
- 12.2 Pharmacodynamics
- 12.3 Pharmacokinetics
- 12.4 Microbiology
- 13 NONCLINICAL TOXICOLOGY
  - 13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility
- 14 CLINICAL STUDIES
- 16 HOW SUPPLIED/STORAGE AND HANDLING
- 17 PATIENT COUNSELING INFORMATION

\*Sections or subsections omitted from the full prescribing information are not listed.

## FULL PRESCRIBING INFORMATION

## **1 INDICATIONS AND USAGE**

PREZCOBIX<sup>®</sup> is indicated in combination with other antiretroviral agents for the treatment of human immunodeficiency virus (HIV-1) infection in treatment-naïve and treatment-experienced adults with no darunavir resistance-associated substitutions (V11I, V32I, L33F, I47V, I50V, I54L, I54M, T74P, L76V, I84V, L89V).

## 2 DOSAGE AND ADMINISTRATION

### 2.1 Recommended Dosage

PREZCOBIX is a fixed-dose combination product containing 800 mg of darunavir and 150 mg of cobicistat. In treatment-naïve and treatment-experienced adults with no darunavir resistance-associated substitutions, the recommended dosage of PREZCOBIX is one tablet taken once daily orally with food. Administer PREZCOBIX in conjunction with other antiretroviral agents.

## 2.2 Testing Prior to Initiation of PREZCOBIX

#### **HIV Genotypic Testing**

HIV genotypic testing is recommended for antiretroviral treatment-experienced patients. However, when HIV genotypic testing is not feasible, PREZCOBIX can be used in protease inhibitor-naïve patients, but is not recommended in protease inhibitor-experienced patients.

#### Creatinine Clearance

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Prior to starting PREZCOBIX, assess estimated creatinine clearance because cobicistat decreases estimated creatinine clearance due to inhibition of tubular secretion of creatinine without affecting actual renal glomerular function *[see Warnings and Precautions (5.3)]*. When co-administering PREZCOBIX with tenofovir disoproxil fumarate (tenofovir DF) assess estimated creatinine clearance, urine glucose, and urine protein at baseline *[see Warnings and Precautions (5.4)]*.

#### 2.3 Not Recommended in Severe Renal Impairment

PREZCOBIX co-administered with tenofovir DF is not recommended in patients who have an estimated creatinine clearance below 70 mL per minute [see Warnings and Precautions (5.4) and Adverse Reactions (6.1)].

## 2.4 Not Recommended in Severe Hepatic Impairment

PREZCOBIX is not recommended for use in patients with severe hepatic impairment [see Use in Specific Populations (8.6) and Clinical Pharmacology (12.3)].

## 2.5 Not Recommended During Pregnancy

PREZCOBIX is not recommended for use in pregnant women because of substantially lower exposures of darunavir and cobicistat during pregnancy [see Use in Specific Populations (8.1) and Clinical Pharmacology (12.3)].

PREZCOBIX should not be initiated in pregnant women. An alternative regimen is recommended for women who become pregnant during therapy with PREZCOBIX.

## **3 DOSAGE FORMS AND STRENGTHS**

PREZCOBIX is supplied as pink, oval-shaped, film-coated tablets containing darunavir ethanolate equivalent to 800 mg of darunavir and 150 mg cobicistat. Each tablet is debossed with "800" on one side and "TG" on the other side.

### **4** CONTRAINDICATIONS

PREZCOBIX is contraindicated in patients receiving the following co-administered drugs [see Drug Interactions (7.3) and Clinical Pharmacology (12.3)].

- Alpha 1-adrenoreceptor antagonist: alfuzosin
- Antianginal: ranolazine
- Antiarrhythmic: dronedarone
- Anticonvulsants: carbamazepine, phenobarbital, phenytoin
- Anti-gout: colchicine, in patients with renal/and or hepatic impairment
- Antimycobacterial: rifampin
- Antipsychotics: lurasidone, pimozide
- Ergot derivatives, e.g. dihydroergotamine, ergotamine, methylergonovine
- GI motility agent: cisapride
- Herbal product: St. John's wort (*Hypericum perforatum*)
- Hepatitis C direct acting antiviral: elbasvir/grazoprevir
- HMG-CoA reductase inhibitors: lovastatin, simvastatin
- PDE-5 inhibitor: sildenafil when used for treatment of pulmonary arterial hypertension
- Sedatives/hypnotics: orally administered midazolam, triazolam

## 5 WARNINGS AND PRECAUTIONS

## 5.1 Hepatotoxicity

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During the darunavir clinical development program (N=3063), where darunavir was co-administered with ritonavir 100 mg once or twice daily, drug-induced hepatitis (e.g., acute hepatitis, cytolytic hepatitis) was reported in 0.5% of subjects. Patients with pre-existing liver

dysfunction, including chronic active hepatitis B or C, have an increased risk for liver function abnormalities including severe hepatic adverse reactions.

Post-marketing cases of liver injury, including some fatalities, have also been reported with darunavir co-administered with ritonavir. These have generally occurred in patients with advanced HIV-1 disease taking multiple concomitant medications, having co-morbidities including hepatitis B or C co-infection, and/or developing immune reconstitution syndrome. A causal relationship with darunavir co-administered with ritonavir has not been established.

Appropriate laboratory testing should be conducted prior to initiating therapy with PREZCOBIX and patients should be monitored during treatment. Increased AST/ALT monitoring should be considered in patients with underlying chronic hepatitis, cirrhosis, or in patients who have pre-treatment elevations of transaminases, especially during the first several months of PREZCOBIX treatment.

Evidence of new or worsening liver dysfunction (including clinically significant elevation of liver enzymes and/or symptoms such as fatigue, anorexia, nausea, jaundice, dark urine, liver tenderness, hepatomegaly) in patients on PREZCOBIX should prompt consideration of interruption or discontinuation of treatment.

#### 5.2 Severe Skin Reactions

During the darunavir clinical development program (n=3063), where darunavir was co-administered with ritonavir 100 mg once or twice daily, severe skin reactions, accompanied by fever and/or elevations of transaminases in some cases, was reported in 0.4% of subjects. Stevens-Johnson Syndrome was rarely (less than 0.1%) reported during the clinical development program. During post-marketing experience toxic epidermal necrolysis, drug rash with eosinophilia and systemic symptoms, and acute generalized exanthematous pustulosis have been reported. Discontinue PREZCOBIX immediately if signs or symptoms of severe skin reactions develop. These can include but are not limited to severe rash or rash accompanied with fever, general malaise, fatigue, muscle or joint aches, blisters, oral lesions, conjunctivitis, hepatitis and/or eosinophilia.

Mild-to-moderate rash was also reported and often occurred within the first four weeks of treatment and resolved with continued dosing.

## 5.3 Effects on Serum Creatinine

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Cobicistat decreases estimated creatinine clearance due to inhibition of tubular secretion of creatinine without affecting actual renal glomerular function. This effect should be considered when interpreting changes in estimated creatinine clearance in patients initiating PREZCOBIX, particularly in patients with medical conditions or receiving drugs needing monitoring with estimated creatinine clearance.

Prior to initiating therapy with PREZCOBIX, assess estimated creatinine clearance [see Dosage and Administration (2.2)]. Dosage recommendations are not available for drugs that require dosage adjustments in PREZCOBIX-treated patients with renal impairment [see Drug Interactions (7.3) and Clinical Pharmacology (12.2)]. Consider alternative medications that do not require dosage adjustments in patients with renal impairment.

Although cobicistat may cause modest increases in serum creatinine and modest declines in estimated creatinine clearance without affecting renal glomerular function, patients who experience a confirmed increase in serum creatinine of greater than 0.4 mg/dL from baseline should be closely monitored for renal safety.

### 5.4 New Onset or Worsening Renal Impairment When Used With Tenofovir Disoproxil Fumarate

Renal impairment, including cases of acute renal failure and Fanconi syndrome, has been reported when cobicistat, a component of PREZCOBIX, was used in an antiretroviral regimen that contained tenofovir DF. Co-administration of PREZCOBIX and tenofovir DF is not recommended in patients who have an estimated creatinine clearance below 70 mL/min [see Dosage and Administration (2.3)].

- Document urine glucose and urine protein at baseline [see Dosage and Administration (2.2)] and perform routine monitoring of estimated creatinine clearance, urine glucose, and urine protein during treatment when PREZCOBIX is used with tenofovir DF. Measure serum phosphorus in patients with or at risk for renal impairment when used with tenofovir DF.
- Co-administration of PREZCOBIX and tenofovir DF in combination with concomitant or recent use of a nephrotoxic agent is not recommended.

See cobicistat full prescribing information for additional information regarding cobicistat.

## 5.5 Risk of Serious Adverse Reactions or Loss of Virologic Response Due to Drug Interactions

Initiation of PREZCOBIX, which inhibits CYP3A, in patients receiving medications metabolized by CYP3A, or initiation of medications metabolized by CYP3A in patients already receiving PREZCOBIX may increase plasma concentrations of medications metabolized by CYP3A. Initiation of medications that inhibit or induce CYP3A may respectively increase or decrease concentrations of PREZCOBIX.

Increased concentrations may lead to:

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- clinically significant adverse reactions, potentially leading to severe, life threatening, or fatal events from higher exposures of concomitant medications.
- clinically significant adverse reactions from higher exposures of PREZCOBIX.

Decreased antiretroviral concentrations may lead to:

• loss of therapeutic effect of PREZCOBIX and possible development of resistance.

See Table 1 for steps to prevent or manage these possible and known significant drug interactions, including dosing recommendations. Consider the potential for drug interactions prior to and during PREZCOBIX therapy; review concomitant medications during PREZCOBIX

# DOCKET A L A R M



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