

# **DARAPRIM Direct** —

# Personalized care when it's needed most

The DARAPRIM Direct Program was created to help patients obtain quick and affordable access to DARAPRIM.

Through our network of specialty pharmacies and a dedicated team of Care Coordinators, DARAPRIM Direct may assist both you and your eligible patients.

To begin the process of prescribing through our network of specialty pharmacies, please fill out a DARAPRIM Direct Enrollment Form and fax it to the number listed on the form.

DARAPRIM Direct may assist with:

- **▼** Dispensing and Delivery
- Insurance Benefits Verification
- **Copay Affordability**
- **Uninsured Patient Support**
- **▼**Ongoing Support

# **Contact Us:**



To access the DARAPRIM Direct Enrollment Form or to learn more about financial support, visit: www.daraprimdirect.com



To contact the DARAPRIM Direct Program or for questions on accessing DARAPRIM call: 1-877-258-2033, option 2



To report a Suspected Adverse Event for DARAPRIM or for Medical Information inquiries call: 1-877-258-2033, option 1

Please see accompanying Full Prescribing Information or visit www.daraprimdirect.com.



# What You Should Know When Prescribing DARAPRIM

# How do I prescribe DARAPRIM?

To prescribe DARAPRIM, fill out the DARAPRIM Direct Enrollment Form and **fax** it to **1-877-241-1365**. The DARAPRIM Direct Enrollment Form can be accessed by visiting **www.daraprimdirect.com**, calling **1-877-258-2033**, or through your local DARAPRIM Key Account Manager.



### Do I have to fill out all sections of the form?

All indicated sections of the form will need to be filled out for the DARAPRIM Direct Program to process the prescription. Not filling out required information can delay fulfillment of the prescription.

Patients will need to sign the patient authorization on page 2 of the DARAPRIM Direct Enrollment Form to access the financial affordability programs.

# How do I e-prescribe DARAPRIM?

Locate the following **NPI: 1811358138** in your e-prescribing system and select and save Optime Care. If prompted select: "Specialty Pharmacy". Follow your normal e-prescribing process to submit the order.

# How do patients access financial assistance programs?

The Care Coordinators at DARAPRIM Direct will help patients with all financial assistance program enrollment requirements.



- If you are uninsured and meet eligibility criteria, you can get DARAPRIM for no cost
- If you have commercial or private insurance, you may pay as little as \$10 out-of-pocket for your prescription\*
- If you are covered by Medicare or Medicaid, our team can refer you to **independent copay foundations and state programs** that may be able to help you pay for your disease treatment



\*Limitations apply. Maximum benefit of up to \$5,000 per month, with a \$15,000 annual cap per calendar year. Visit www.daraprimdirect.com to see full Copay Terms and Conditions.



Patients should receive their medication in 24-48 hours after the DARAPRIM Direct Program receives the DARAPRIM Direct Enrollment Form, however there can be delays due to benefits verification and your patient's availability for delivery. If you have questions or concerns, please call **1-877-258-2033**.



# What happens if the DARAPRIM Direct staff cannot reach my patient?

The DARAPRIM Direct Program will attempt to reach your patient **three (3)** times. If there is no response, Care Coordinators will notify your office to confirm the patient's contact information is correct and to enlist your help to reach the patient if need be.

# Are DARAPRIM refills shipped automatically?

If refills are prescribed, the DARAPRIM Direct Care Coordinators will schedule and coordinate appropriately.



DARAPRIM® (pyrimethamine) 25 mg tablets Rx Only

#### **PRESCRIBING**

# INFORMATION

#### DESCRIPTION

DARAPRIM (pyrimethamine) is an antiparasitic compound available in tablet form for oral administration. Each scored tablet contains 25 mg pyrimethamine and the inactive ingredients corn and potato starch, lactose, and magnesium stearate. Pyrimethamine, known chemically as 5-(4-chlorophenyl)-6-ethyl-2, 4-pyrimidinediamine, has the following structural formula:

$$C_{12}H_{13}CIN_4$$
  
Mol. Wt. 248.71

# CLINICAL PHARMACOLOGY

Pyrimethamine is well absorbed with peak levels occurring between 2 to 6 hours following administration. It is eliminated slowly and has a plasma half-life of approximately 96 hours. Pyrimethamine is 87% bound to human plasma proteins.

**Microbiology:** Pyrimethamine is a folic acid antagonist and the rationale for its therapeutic action is based on the differential requirement between host and parasite for nucleic acid precursors involved in growth. This activity is highly selective against *Toxoplasma gondii*.

The action of pyrimethamine against *Toxoplasma gondii* is greatly enhanced when used in conjunction with sulfonamides. This was demonstrated by Eyles and Coleman<sup>1</sup> in the treatment of experimental toxoplasmosis in the mouse. Jacobs et al<sup>2</sup> demonstrated that combination of the 2 drugs effectively prevented the development of severe uveitis in most rabbits following the inoculation of the anterior chamber of the eye with toxoplasma.

# INDICATIONS AND USAGE

**Treatment** of **Toxoplasmosis:** DARAPRIM is indicated for the treatment of toxoplasmosis when used conjointly with a sulfonamide, since synergism exists with this combination.

#### CONTRAINDICATIONS

Use of DARAPRIM is contraindicated in patients with known hypersensitivity to pyrimethamine or to any component of the formulation. Use of the drug is also contraindicated in patients with documented megaloblastic anemia due to folate deficiency.

# WARNINGS

The dosage of pyrimethamine required for the treatment of toxoplasmosis has a narrow therapeutic window. If signs of folate deficiency develop (see ADVERSE REACTIONS), reduce the dosage or discontinue the drug according to the response of the patient. Folinic acid (leucovorin) should be administered in a dosage of 5 to 15 mg daily (orally, IV, or IM) until normal hematopoiesis is restored.

Data in 2 humans indicate that pyrimethamine may be carcinogenic; a 51-year-old female who developed chronic granulocytic leukemia after taking pyrimethamine for 2 years for toxoplasmosis<sup>3</sup> and a 56-year-old patient who developed reticulum cell sarcoma after 14 months of pyrimethamine for toxoplasmosis.<sup>4</sup>

Pyrimethamine has been reported to produce a significant increase in the number of lung tumors in mice when given intraperitoneally at doses of 25 mg/kg.<sup>5</sup> DARAPRIM should be kept out of the reach of infants and children as they are extremely susceptible to adverse effects from an overdose. Deaths in pediatric patients have been reported after accidental ingestion.

# **PRECAUTIONS**

General: A small "starting" dose for toxoplasmosis is recommended in patients with convulsive disorders to avoid the potential nervous system toxicity of pyrimethamine. DARAPRIM should be used with caution in patients with impaired renal or hepatic function or in patients with possible folate deficiency, such as individuals with malabsorption syndrome, alcoholism, or pregnancy, and those receiving therapy, such as phenytoin, affecting folate levels (see Pregnancy subsection).

Information for Patients: Patients should be warned that at the first appearance of a skin rash they should stop use of DARAPRIM and seek medical attention immediately. Patients should also be warned that the appearance of sore throat, pallor, purpura, or glossitis may be early indications of serious disorders which require treatment with DARAPRIM to be stopped and medical treatment to be sought.

Women of childbearing potential who are taking DARAPRIM should be warned against becoming pregnant. Patients should be warned to keep DARAPRIM out of the reach of children. Patients should be advised not to exceed recommended doses. Patients should be warned that if anorexia and vomiting occur, they may be minimized by taking the drug with meals.

Concurrent administration of folinic acid is strongly recommended when used for the treatment of toxoplasmosis in all patients.

**Laboratory Tests:** In patients receiving high dosage, semiweekly blood counts, including platelet counts, should be performed.

**Drug Interactions:** Pyrimethamine may be used with sulfonamides, quinine and other antimalarials, and with other antibiotics. However, the concomitant use of other antifolic drugs or agents associated myelosuppression with including sulfonamides or trimethoprimsulfamethoxazole combinations, proguanil, zidovudine, or cytostatic agents (e.g., methotrexate), while the patient is receiving pyrimethamine, may increase the risk of bone marrow suppression. If signs deficiency folate develop, pyrimethamine should be discontinued. Folinic acid (leucovorin) should be administered until normal hematopoiesis is restored (see WARNINGS). hepatotoxicity has been reported in some patients when lorazepam and pyrimethamine were administered concomitantly.

Carcinogenesis, Mutagenesis, Impairment of Fertility: See WARNINGS section for information on carcinogenesis.

Mutagenesis: Pyrimethamine has been shown to be nonmutagenic in the following in vitro assays: the Ames point mutation assay, the Rec assay, and the E. coli WP2 assay. It was positive in the L5178Y/TK +/-mouse lymphoma assay in the absence of exogenous metabolic activation. Human blood lymphocytes cultured in vitro had structural chromosome aberrations induced by pyrimethamine.

*In vivo*, chromosomes analyzed from the bone marrow of rats dosed with pyrimethamine showed an increased number of structural and numerical aberrations.

**Pregnancy: Teratogenic** Effects: Pregnancy Category C. Pyrimethamine has been shown to be teratogenic in rats when given in oral doses 2.5 times the human dose for treatment of toxoplasmosis. At these doses in rats, there was a significant increase in abnormalities such as cleft palate, brachygnathia, oligodactyly, and microphthalmia. Pyrimethamine has also been shown to produce terata such as meningocele in hamsters and cleft palate in miniature pigs when given in oral doses 5 times the human dose for the treatment of toxoplasmosis.

There are no adequate and well-controlled studies in pregnant women. DARAPRIM should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Concurrent administration of folinic acid is strongly recommended when used during pregnancy.

Nursing Mothers: Pyrimethamine is excreted in human milk. Because of the potential for serious adverse reactions in nursing infants from pyrimethamine and from concurrent use of a sulfonamide with DARAPRIM for treatment of some patients with toxoplasmosis, a decision should be made whether to discontinue nursing or to discontinue the drug, taking into account the importance of the drug to the mother (see WARNINGS and PRECAUTIONS: Pregnancy).

**Pediatric Use:** See DOSAGE AND ADMINISTRATION section.

Geriatric Use: Clinical studies of DARAPRIM 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. In general, dose selection for an elderly patient should be cautious, usually starting at the low end of the dosing range, reflecting the greater frequency of decreased hepatic, renal, or cardiac function, and of concomitant disease or other drug therapy.

#### ADVERSE REACTIONS

Hypersensitivity reactions, occasionally (such as Stevens-Johnson syndrome, toxic epidermal necrolysis, erythema multiforme, and anaphylaxis), and hyperphenylalaninemia, can occur particularly when pyrimethamine is administered concomitantly with sulfonamide. Consult the complete prescribing information for the relevant sulfonamide for sulfonamide-associated adverse events. With doses pyrimethamine used for the treatment of toxoplasmosis, anorexia and vomiting may occur. Vomiting may be minimized by giving the medication with meals; it disappears promptly reduction of dosage. Doses used in toxoplasmosis may produce megaloblastic anemia, leukopenia, thrombocytopenia, pancytopenia, neutropenia, atrophic glossitis, hematuria, and disorders of cardiac rhythm.

Hematologic effects, however, may also occur at low doses in certain individuals (see PRECAUTIONS; General).

Pulmonary eosinophilia has been reported rarely.

# **OVERDOSAGE**

Following the ingestion of 300 mg or more

of pyrimethamine, gastrointestinal and/or central nervous system signs may be present, including convulsions. The initial symptoms are usually gastrointestinal and may include abdominal pain, nausea, severe and repeated vomiting, possibly including hematemesis. Central nervous system toxicity may be manifest by initial excitability, generalized and prolonged convulsions which may be followed by respiratory depression, circulatory collapse, and death within a few hours. Neurological symptoms appear rapidly (30 minutes to 2 hours after drug ingestion), suggesting that in gross overdosage pyrimethamine has a direct toxic effect on the central nervous system.

The fatal dose is variable, with the smallest reported fatal single dose being 375 mg. There are, however, reports of pediatric patients who have recovered after taking 375 to 625 mg.

There is no specific antidote to acute pyrimethamine poisoning. In the event of overdosage, symptomatic and supportive measures should be employed. Gastric lavage is recommended and is effective if carried out very soon after drug ingestion. Parenteral diazepam may be used to control convulsions. Folinic acid should be administered within 2 hours of drug ingestion to be most effective in counteracting the effects on hematopoietic system (see WARNINGS). Due to the long half-life of pyrimethamine, daily monitoring of peripheral blood counts is recommended for up to several weeks the overdose until hematologic values are restored.

# DOSAGE AND ADMINISTRATION

For Treatment of Toxoplasmosis: The dosage of DARAPRIM for the treatment of toxoplasmosis must be carefully adjusted so as to provide maximum therapeutic effect and a minimum of side effects. At the dosage required, there is a marked variation in the tolerance to the drug. Young patients may tolerate higher doses than older individuals. Concurrent administration of folinic acid is strongly recommended in all patients.

The adult *starting* dose is 50 to 75 mg of the drug daily, together with 1 to 4 g daily of a sulfonamide of the sulfapyrimidine type, e.g. sulfadoxine. This dosage is ordinarily continued for 1 to 3 weeks, depending on the response of the patient and tolerance to therapy. The dosage may then be reduced to about one half that previously given for each drug and continued for an additional 4 to 5 weeks. The pediatric dosage of DARAPRIM is 1 mg/kg/day divided into 2 equal daily doses; after 2 to 4 days this dose may be reduced to one half and continued for approximately 1 month. The usual

pediatric sulfonamide dosage is used in conjunction with DARAPRIM.

# **HOW SUPPLIED:**

White, scored tablets containing 25 mg pyrimethamine, imprinted with "DARAPRIM" and "A3A" in bottles of 100 (NDC 69413-330-10) and bottles of 30 (NDC 69413-330-30).

Store at  $15^{\circ}$  to  $25^{\circ}C$   $(59^{\circ}$  to  $77^{\circ}F)$  in a dry place and protect from light.

#### REFERENCES

- 1. Eyles DE, Coleman N. Synergistic effect of sulfadiazine and Daraprim against experimental toxoplasmosis in the mouse. *Antibiot Chemother* 1953;3:483-490.
- Jacobs L, Melton ML, Kaufman HE. Treatment of experimental ocular toxoplasmosis. Arch Ophthalmol. 1964;71:111-118.
- 3. Jim RTS, Elizaga FV. Development of chronic granulocytic leukemia in a patient treated with pyrimethamine. *Hawaii Med J.* 1977;36:173-176.
- 4. Sadoff L. Antimalarial drugs and Burkitt's lymphoma. *Lancet*. 1973;2:1262-1263.
- Bahna L. Pyrimethamine. LARC Monogr Eval Carcinog Risk Chem. 1977:13:233-242.
- 6. Clive D, Johnson KO, Spector JKS, et al. Validation and characterization of the L5178Y/TK +/- mouse lymphoma mutagen assay system. *Mut Res*. 1979;59:61-108.

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