

**DACTINOMYCIN- dactinomycin injection, powder, lyophilized, for solution**  
**Mylan Institutional LLC**

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**HIGHLIGHTS OF PRESCRIBING INFORMATION**

**These highlights do not include all the information needed to use DACTINOMYCIN FOR INJECTION safely and effectively. See full prescribing information for DACTINOMYCIN FOR INJECTION.**

**DACTINOMYCIN for injection, for intravenous use**

**Initial U.S. Approval: 1964**

----- **RECENT MAJOR CHANGES** -----

- Dosage and Administration, Recommended Dosage for Wilms Tumor (2.1) 8/2018
- Dosage and Administration, Recommended Dosage for Ewing Sarcoma (2.3) 8/2018

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

Dactinomycin for injection is an actinomycin indicated for the treatment of:

- adult and pediatric patients with Wilms tumor, as part of a multi-phase, combination chemotherapy regimen. (1.1)
- adult and pediatric patients with rhabdomyosarcoma, as part of a multiphase, combination chemotherapy regimen. (1.2)
- adult and pediatric patients with Ewing sarcoma, as part of a multi-phase, combination chemotherapy regimen. (1.3)
- adult and pediatric patients with metastatic, nonseminomatous testicular cancer, as part of a multi-phase, combination chemotherapy regimen. (1.4)
- post-menarchal patients with gestational trophoblastic neoplasia, as a single agent or as part of a combination chemotherapy regimen. (1.5)
- adult patients with locally recurrent or locoregional solid malignancies, as a component of palliative or adjunctive regional perfusion. (1.6)

----- **DOSAGE AND ADMINISTRATION** -----

- Wilms Tumor: The recommended dose is 45 mcg/kg intravenously once every 3 to 6 weeks for up to 26 weeks, as part of a multi-agent combination chemotherapy regimen. (2.1)
- Rhabdomyosarcoma: The recommended dose is 15 mcg/kg intravenously once daily for 5 days every 3 to 9 weeks for up to 112 weeks, as part of a multi-agent combination chemotherapy regimen. (2.2)
- Ewing Sarcoma: The recommended dose is 1250 mcg/m<sup>2</sup> intravenously once every 3 weeks for 51 weeks, as part of a multi-agent combination chemotherapy regimen. (2.3)
- Metastatic Nonseminomatous Testicular Cancer: The recommended dose is 1000 mcg/m<sup>2</sup> intravenously every 3 weeks, as part of cisplatin-based, multi-drug chemotherapy regimen. (2.4)
- Gestational Trophoblastic Neoplasia:
  - Non-metastatic and Low-risk Metastatic Disease: The recommended dose is 12 mcg/kg intravenously daily for 5 days, as a single agent. (2.5)
  - High-risk Metastatic Disease: The recommended dose is 500 mcg intravenously on Days 1 and 2 every 2 weeks for up to 8 weeks, as part of a multi-agent combination chemotherapy regimen. (2.5)
- Regional Perfusion in Locally Recurrent and Locoregional Solid Malignancies:
  - Lower Extremity or Pelvis: The recommended dose is 50 mcg/kg once with melphalan. (2.6)
  - Upper Extremity: The recommended dose is 35 mcg/kg once with melphalan. (2.6)

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

For injection: 500 mcg as a lyophilized powder in a single-dose vial. (3)

----- **CONTRAINDICATIONS** -----

None. (4)

----- **WARNINGS AND PRECAUTIONS** -----

- Secondary Malignancy or Leukemia: Increased risk of secondary malignancies following treatment. (5.1)
- Venous-occlusive Disease: Can cause severe or fatal VOD. Monitor for elevations in AST, ALT, total bilirubin, hepatomegaly, weight gain, or ascites. Consider delaying next dose. (5.2)
- Extravasation: Immediately interrupt the injection or infusion and apply ice. (2.7, 5.3)
- Myelosuppression: Monitor blood cell counts before each cycle. Delay next dose if severe myelosuppression has not

improved. (5.4)

- Immunizations: Vaccination with live viral vaccines is not recommended before or during treatment. (5.5)
- Severe Mucocutaneous Reactions: Discontinue treatment (5.6)
- Renal Toxicity: Monitor creatinine and electrolytes frequently. (5.7)
- Hepatotoxicity: Monitor transaminases, alkaline phosphatase and bilirubin prior to and during treatment. (5.8)
- Potentiation of Radiation Toxicity and Radiation Recall: Reduce dose by 50% during concomitant radiation. Use caution when administering within two months of radiation. (5.9)
- Embryo-fetal Toxicity: Can cause fetal harm. Advise patients of the potential risk to a fetus and to use effective contraception. (5.10, 8.1, 8.3)

----- **ADVERSE REACTIONS** -----

Common adverse reactions are: infection, alopecia, rash, dysphagia, fatigue, fever, nausea, vomiting, anemia, neutropenia, thrombocytopenia, mucositis, and hepatotoxicity (6)

**To report SUSPECTED ADVERSE REACTIONS, contact Mylan at 1-877-446-3679 (1-877-4-INFO-RX) or FDA at 1-800-FDA-1088 or [www.fda.gov/medwatch](http://www.fda.gov/medwatch).**

----- **USE IN SPECIFIC POPULATIONS** -----

- Lactation: Advise not to breastfeed. (8.2)

See 17 for **PATIENT COUNSELING INFORMATION**.

**Revised: 10/2018**

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## **FULL PRESCRIBING INFORMATION**

### **1 INDICATIONS AND USAGE**

#### **1.1 Wilms Tumor**

Dactinomycin for injection is indicated for the treatment of adult and pediatric patients with Wilms tumor, as part of a multi-phase, combination chemotherapy regimen.

#### **1.2 Rhabdomyosarcoma**

Dactinomycin for injection is indicated for the treatment of adult and pediatric patients with rhabdomyosarcoma, as part of a multi-phase, combination chemotherapy regimen.

#### **1.3 Ewing Sarcoma**

Dactinomycin for injection is indicated for the treatment of adult and pediatric patients with Ewing sarcoma, as part of a multi-phase, combination chemotherapy regimen.

#### **1.4 Metastatic Nonseminomatous Testicular Cancer**

Dactinomycin for injection is indicated for the treatment of adult and pediatric patients with metastatic, nonseminomatous testicular cancer, as part of a multi-phase, combination chemotherapy regimen.

#### **1.5 Gestational Trophoblastic Neoplasia**

Dactinomycin for injection is indicated for the treatment of post-menarchal patients with gestational trophoblastic neoplasia, as a single agent or as part of a combination chemotherapy regimen.

#### **1.6 Regional Perfusion in Locally Recurrent and Locoregional Solid Malignancies**

Dactinomycin for injection is indicated for the treatment of adult patients with locally recurrent or locoregional solid malignancies, as a component of palliative or adjunctive regional perfusion.

### **2 DOSAGE AND ADMINISTRATION**

## 2.1 Recommended Dosage for Wilms Tumor

The recommended dose of dactinomycin for injection, as part of a multi-agent combination chemotherapy regimen, is

45 mcg/kg intravenously once every 3 to 6 weeks for up to 26 weeks.

## 2.2 Recommended Dosage for Rhabdomyosarcoma

The recommended dose of dactinomycin for injection, as part of a multi-agent combination chemotherapy regimen, is 15 mcg/kg intravenously once daily for 5 days every 3 to 9 weeks for up to 112 weeks.

## 2.3 Recommended Dosage for Ewing Sarcoma

The recommended dose of dactinomycin for injection, as part of a multi-agent combination chemotherapy regimen, is 1,250 mcg/m<sup>2</sup> intravenously once every 3 weeks for 51 weeks.

## 2.4 Recommended Dosage for Metastatic Nonseminomatous Testicular Cancer

The recommended dose of dactinomycin for injection, as part of a cisplatin-based, multi-agent combination chemotherapy regimen, is 1,000 mcg/m<sup>2</sup> intravenously once every 3 weeks for 12 weeks.

## 2.5 Recommended Dosage for Gestational Trophoblastic Neoplasia

The recommended dose of dactinomycin for injection for nonmetastatic and low-risk metastatic disease is 12 mcg/kg intravenously daily for five days as a single agent.

The recommended dose of dactinomycin for injection, as part of a multi-agent combination chemotherapy regimen, for high-risk metastatic disease is 500 mcg intravenously on Days 1 and 2 every 2 weeks for up to 8 weeks.

## 2.6 Recommended Dosage for Regional Perfusion in Locally Recurrent and Locoregional Solid Malignancies

The recommended dose of dactinomycin for injection, in combination with melphalan, is 50 mcg/kg once for lower extremity or pelvis.

The recommended dose of dactinomycin for injection, in combination with melphalan, is 35 mcg/kg once for upper extremity.

**Calculate the dose for obese or edematous patients based on ideal body weight.**

## 2.7 Preparation and Administration

- Dactinomycin for injection is a cytotoxic drug. Follow applicable special handling and disposal procedures.<sup>1</sup>
- Visually inspect the vials for particulate matter and discoloration, whenever solution and container permit.

### Preparation

- Reconstitute each vial by adding 1.1 mL of Sterile Water for Injection without preservative using aseptic techniques.
- The reconstituted product should be a clear, gold-colored solution at a concentration of 500 mcg/mL.
- Further dilute the reconstituted product with 5% Dextrose Injection or 0.9% Sodium Chloride Injection to yield concentrations greater than 10 mcg/mL.
- Store at room temperature for no more than 4 hours from reconstitution to completion of injection

or infusion. Discard after 4 hours.

- Dactinomycin for injection does not contain a preservative. Discard any unused portions.

### Administration

- Administer the diluted reconstituted product intravenously over 10 to 15 minutes.
- Do not use in-line filters with a cellulose ester membrane.

### Management of Extravasation

- Discontinue dactinomycin for injection for burning or stinging sensation or other evidence indicating perivenous infiltration or extravasation.
- Manage confirmed or suspected extravasation as follows:
  - Terminate the injection or infusion immediately and restart in another vein.
  - Intermittent application of ice to the site for 15 minutes 4 times daily for 3 days [see *Warnings and Precautions* (5.3)].

## **3 DOSAGE FORMS AND STRENGTHS**

For injection: 500 mcg as a sterile, amorphous yellow to orange, lyophilized powder in a single-dose vial.

## **4 CONTRAINDICATIONS**

None.

## **5 WARNINGS AND PRECAUTIONS**

### **5.1 Secondary Malignancy or Leukemia**

The risk of developing secondary malignancies, including leukemia, is increased following treatment with dactinomycin for injection.

### **5.2 Venocclusive Disease**

Severe and fatal hepatic venocclusive disease (VOD) can occur with dactinomycin for injection. Risk factors for the development of VOD include age younger than 4 years or concomitant radiotherapy. After treatment with dactinomycin for injection, monitor frequently for signs and symptoms of VOD; these include elevations in AST, ALT, total bilirubin, hepatomegaly, weight gain, or ascites. If patients develop VOD, considering delaying next dose of dactinomycin for injection. Resume, reduce dose or permanently discontinue based on severity of reaction and disease being treated.

### **5.3 Extravasation**

Extravasation of dactinomycin for injection can result in severe local tissue injury manifesting as blistering, ulcerations and persistent pain requiring wide excision surgery followed by split-thickness skin grafting. If any signs or symptoms of extravasation occur, immediately interrupt the injection or infusion. Apply ice to the site intermittently for 15 minutes, 4 times a day for 3 days [see *Dosage and Administration* (2.7)]. Observe closely and consult plastic surgery if necessary based on severity of reaction.

### **5.4 Myelosuppression**

Severe and fatal myelosuppression, which may include neutropenia, thrombocytopenia and anemia, can

occur with dactinomycin for injection. The nadir in neutrophil counts generally occurs 14 to 21 days after administration. Obtain complete blood counts prior to each treatment cycle. Delay next dose of dactinomycin for injection if severe myelosuppression has not improved. Consider dose reduction for patients with prolonged myelosuppression based on severity of reaction and disease being treated.

### **5.5 Immunizations**

The safety with live viral vaccines following dactinomycin for injection has not been studied and vaccination with live virus vaccines is not recommended before or during treatment.

### **5.6 Severe Mucocutaneous Reactions**

Severe mucocutaneous reactions, such as Steven-Johnson syndrome and Toxic Epidermal Necrolysis (TEN), can occur with dactinomycin for injection. Permanently discontinue dactinomycin for injection in patients who experience a severe mucocutaneous reaction.

### **5.7 Renal Toxicity**

Abnormalities of renal function can occur with dactinomycin for injection. Monitor creatinine and electrolytes frequently during dactinomycin for injection therapy.

### **5.8 Hepatotoxicity**

Hepatotoxicity can occur with dactinomycin for injection. Monitor AST, ALT, alkaline phosphatase, and bilirubin prior to and during dactinomycin for injection therapy.

### **5.9 Potentiation of Radiation Toxicity and Radiation Recall**

Dactinomycin for injection can increase radiation-induced gastrointestinal toxicity, myelosuppression, or erythema and vesiculation of the skin or buccal and pharyngeal mucosa. Reduce the dose of dactinomycin for injection by 50% during concomitant radiation.

Radiation recall, affecting previously treated radiation fields, can occur in patients who receive dactinomycin for injection after prior radiation therapy. Although the risk can occur with distant radiation exposure, the risk appears highest when dactinomycin for injection is administered within two months of prior radiation.

### **5.10 Embryo-Fetal Toxicity**

Based on findings from animal studies and its mechanism of action, dactinomycin for injection can cause fetal harm when administered to a pregnant woman. In animal reproduction studies, administration of dactinomycin to pregnant animals during the period of organogenesis was teratogenic, resulting in malformations at doses lower than the recommended human dose.

Advise pregnant women of the potential risk to the fetus. Advise females of reproductive potential to use effective contraception during treatment with dactinomycin for injection and for at least 6 months after the final dose. Advise males with female partners of reproductive potential to use effective contraception during treatment with dactinomycin for injection and for 3 months after the final dose [*see Use in Specific Populations (8.1, 8.3)*].

## **6 ADVERSE REACTIONS**

The following serious adverse reactions are described elsewhere in the labeling:

- Secondary Malignancy and Leukemia [*see Warnings and Precautions (5.1)*]
- Venous-occlusive Disease [*see Warnings and Precautions (5.2)*]
- Extravasation [*see Warnings and Precautions (5.3)*]
- Myelosuppression [*see Warnings and Precautions (5.4)*]

- Immunizations [see *Warning and Precautions (5.5)*]
- Severe Mucocutaneous Reactions [see *Warnings and Precautions (5.6)*]
- Renal Toxicity [see *Warnings and Precautions (5.7)*]
- Hepatotoxicity [see *Warnings and Precautions (5.8)*]
- Potentiation of Radiation Toxicity and Radiation Recall [see *Warnings and Precautions(5.9)*]

Common adverse reactions are: infection, alopecia, rash, dysphagia, fatigue, fever, nausea, vomiting, anemia, neutropenia, thrombocytopenia, mucositis, and hepatotoxicity.

The following adverse reactions have been identified in clinical studies or postmarketing reports. Because some of these reactions were reported voluntarily from a population of uncertain size, it is not always possible to reliably estimate their frequency or establish a causal relationship to drug exposure.

*Infections:* infections including sepsis with fatal outcome

*Hematologic:* anemia, leukopenia, thrombocytopenia, pancytopenia, reticulocytopenia, neutropenia, febrile neutropenia, disseminated intravascular coagulation

*Immune system:* hypersensitivity

*Metabolism and nutrition:* anorexia, hypocalcemia, tumor lysis syndrome

*Nervous system:* peripheral neuropathy

*Ocular:* optic neuropathy

*Vascular:* thrombophlebitis, hemorrhage

*Respiratory, thoracic and mediastinal:* pneumonitis, pneumothorax

*Gastrointestinal:* nausea, vomiting, abdominal pain, diarrhea, constipation, gastrointestinal ulceration, cheilitis, dysphagia, esophagitis, ulcerative stomatitis, ascites, proctitis, mucositis

*Hepatobiliary:* liver function test abnormalities, hepatomegaly, hepatitis, hepatic failure with reports of death, hepatic veno-occlusive disease

*Dermatologic:* alopecia, rash, dermatitis, acne, erythema multiforme, Stevens Johnson Syndrome, radiation recall, toxic epidermal necrolysis

*Musculoskeletal and connective tissue:* myalgia, growth retardation

*Renal and urinary:* renal impairment, renal failure

*General:* fatigue, fever, malaise

## **8 USE IN SPECIFIC POPULATIONS**

### **8.1 Pregnancy**

#### Risk Summary

Based on findings from animal studies and its mechanism of action dactinomycin for injection can cause fetal harm when administered to a pregnant woman [see *Clinical Pharmacology (12.1)*]. In animal reproduction studies, administration of dactinomycin to pregnant animals during the period of organogenesis was teratogenic, resulting in malformations at doses lower than the recommended human dose (see *Data*). Advise pregnant women of the potential risk to a fetus [see *Use in Special Populations (8.3)*].

In the U.S. general population, the estimated background risk of major birth defects and miscarriage in clinically recognized pregnancies is 2% to 4% and 15% to 20%, respectively.

#### Data

## *Animal Data*

Dactinomycin was teratogenic in animals. Administration of dactinomycin to pregnant rats, rabbits, and hamsters during the period of organogenesis, increased the incidence of fetal malformations and caused embryotoxicity at doses (based on body surface area) as low as 0.2 times the clinical dose of 1,250 mcg/m<sup>2</sup>.

## 8.2 Lactation

### Risk Summary

There are no data on the presence of dactinomycin or its metabolites in human milk or their effects on the breastfed infant or on milk production. Because of the potential for serious adverse reactions in breastfed infants from dactinomycin for injection, advise women not to breastfeed during treatment with dactinomycin for injection and, based on limited published data regarding the dactinomycin half-life, for 14 days after the final dose.

## **8.3 Females and Males of Reproductive Potential**

### Pregnancy Testing

Verify the pregnancy status of females of reproductive potential prior to initiating dactinomycin for injection [see *Use in Specific Population (8.1)*].

### Contraception

Dactinomycin for injection can cause fetal harm when administered to a pregnant woman [see *Use in Specific Populations (8.1)*].

### *Females*

Advise females of reproductive potential to use effective contraception during treatment with dactinomycin for injection and for at least 6 months after the final dose.

### *Males*

Because of the potential for genotoxicity, advise males with female partners of reproductive potential to use effective contraception during treatment with dactinomycin for injection and for 3 months after the final dose [see *Nonclinical Toxicology (13.1)*].

## **8.4 Pediatric Use**

The safety and effectiveness of dactinomycin have been established in pediatric patients with Wilms tumor, rhabdomyosarcoma, Ewing sarcoma, and metastatic nonseminomatous testicular cancer.

The safety and effectiveness of dactinomycin have been established in post-menarchal pediatric patients with gestational trophoblastic neoplasia.

The safety and effectiveness of dactinomycin for injection have not been established in pediatric patients undergoing regional perfusion for locally recurrent or locoregional solid malignancies.

## **8.5 Geriatric Use**

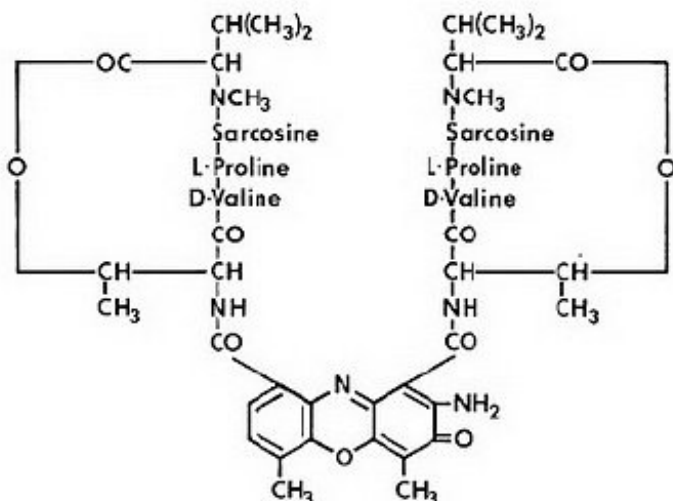
Clinical studies of dactinomycin for injection did not include sufficient numbers of subjects aged 65 and over to determine whether they respond differently from younger subjects.

## **11 DESCRIPTION**

Dactinomycin, USP is one of the actinomycins, a group of antibiotics produced by various species of *Streptomyces*. Dactinomycin is the principal component of the mixture of actinomycins produced by *Streptomyces parvullus*. Unlike other species of *Streptomyces*, this organism yields an essentially pure substance that contains only traces of similar compounds differing in amino acid content of the peptide



side chains. The empirical formula is  $C_{62}H_{86}N_{12}O_{16}$  and the structural formula is:



Dactinomycin for Injection, USP is a sterile, yellow to orange, lyophilized powder for injection by intravenous route or by regional perfusion after reconstitution. Each vial contains 0.5 mg (500 mcg) of dactinomycin, USP and 20 mg of mannitol.

## 12 CLINICAL PHARMACOLOGY

### 12.1 Mechanism of Action

Dactinomycin for injection is a cytotoxic actinomycin that binds DNA and inhibits RNA synthesis. The cytotoxic activity of dactinomycin has been demonstrated in animal models of different human cancers.

### 12.2 Pharmacodynamics

Dactinomycin exposure-response relationships and the time course of pharmacodynamics response are unknown.

### 12.3 Pharmacokinetics

The distribution and excretion of radiolabeled dactinomycin (<sup>3</sup>Hactinomycin D) were assessed in three adult patients with malignant melanoma.

#### Distribution

<sup>3</sup>H actinomycin D is concentrated in nucleated cells and does not penetrate the blood-brain barrier.

#### Elimination

##### *Excretion*

Following administration of radiolabeled dactinomycin, approximately 30% was recovered in urine and feces in one week.

#### Specific Populations

##### *Pediatric Patients*

Published studies and population analyses in patients ≤ 21 years of age with cancer report a trend of increasing systemic dactinomycin clearance with increasing body weight.

#### Drug Interaction Studies

Published *in vitro* studies report that dactinomycin may be a substrate of the P-glycoprotein and

OATP1B3 transporter systems.

## 13 NONCLINICAL TOXICOLOGY

### 13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility

Dactinomycin is a carcinogen in animals. Local sarcomas were produced in mice and rats after repeated subcutaneous or intraperitoneal injections. Mesenchymal tumors occurred in male rats given intraperitoneal injections of 50 mcg/kg, 2 to 5 times per week, for 18 weeks, at doses (based on body surface area) 0.5 times the clinical dose of 1,250 mcg/m<sup>2</sup>.

Dactinomycin was mutagenic in several *in vitro* and *in vivo* test systems including human fibroblasts and leukocytes, and HeLa cells. DNA damage and cytogenetic effects have been demonstrated in the mouse and the rat.

## 15 REFERENCES

1. "OSHA Hazardous Drugs." OSHA. <http://www.osha.gov/SLTC/hazardousdrugs/index.html>

## 16 HOW SUPPLIED/STORAGE AND HANDLING

Dactinomycin for injection, USP is a lyophilized powder. In the dry form the compound is an amorphous yellow to orange powder. The solution is clear, gold or yellow to orange colored and essentially free from visible particles. Dactinomycin for injection, USP is supplied in vials containing 0.5 mg (500 micrograms) of dactinomycin and 20.0 mg of mannitol.

NDC 67457-513-05: 0.5 mg/vial in 2 mL single-dose vial; individually boxed

NDC 67457-513-99: 0.5 mg/vial in 2 mL single-dose individually boxed vials in outer carton (12s).

**Storage:** Store at 20° to 25°C (68° to 77°F); [see USP Controlled Room Temperature] Protect from light and humidity.

**Special Handling:** Animal studies have shown dactinomycin to be corrosive to skin, irritating to the eyes and mucous membranes of the respiratory tract and highly toxic by the oral route. It has also been shown to be carcinogenic, mutagenic, embryotoxic and teratogenic. Due to the drug's toxic properties, appropriate precautions including the use of appropriate safety equipment are recommended for the preparation of dactinomycin for injection for parenteral administration. Inhalation of dust or vapors and contact with skin or mucous membranes, especially those of the eyes, must be avoided. Avoid exposure during pregnancy. The National Institutes of Health presently recommends that the preparation of injectable antineoplastic drugs should be performed in a Class II laminar flow biological safety cabinet. Personnel preparing drugs of this class should wear chemical resistant, impervious gloves, safety goggles, outer garments and shoe covers. Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, disposable suits) to avoid exposed skin surfaces and inhalation of vapors and dust. Appropriate techniques should be used to remove potentially contaminated clothing.

Several other guidelines for proper handling and disposal of antineoplastic drugs have been published and should be considered.<sup>1-4</sup>

**Accidental Contact Measures:** Should accidental eye contact occur, copious irrigation for at least 15 minutes with water, normal saline or a balanced salt ophthalmic irrigating solution should be instituted immediately, followed by prompt ophthalmologic consultation. Should accidental skin contact occur, the affected part must be irrigated immediately with copious amounts of water for at least 15 minutes while removing contaminated clothing and shoes. Medical attention should be sought immediately. Contaminated clothing should be destroyed and shoes cleaned thoroughly before reuse (see

PRECAUTIONS, General and DOSAGE AND ADMINISTRATION, Preparation of Solution for Intravenous Administration).

## **17 PATIENT COUNSELING INFORMATION**

### Secondary Malignancy or Leukemia

Advise patients of the increased risk of secondary malignancies [see *Warnings and Precautions (5.1)*].

### Veno-occlusive Disease

Advise patients about the symptoms of VOD and to seek medical attention if they develop new onset jaundice, abdominal distention, or right upper quadrant pain [see *Warnings and Precautions (5.2)*].

### Myelosuppression

Advise patients to contact their healthcare provider for any signs or symptoms of myelosuppression or infection [see *Warnings and Precautions (5.4)*].

### Severe Mucocutaneous Reactions

Advise patients of the risk of severe mucocutaneous reactions and to contact their health care provided for new skin lesions, mouth sores or oropharyngeal lesions [see *Warnings and Precautions (5.5)*].

### Renal Toxicity or Hepatotoxicity

Advise patients of the need for periodic laboratory testing to monitor for renal toxicity and hepatotoxicity [see *Warnings and Precautions (5.7, 5.8)*].

### Potential of Radiation Toxicity and Radiation Recall

Advise patients of the risk of increased radiation-induced gastrointestinal, myelosuppression and skin toxicity [see *Warnings and Precautions (5.9)*].

### Embryo-Fetal Toxicity

Advise females of reproductive potential of the potential risk to a fetus. Advise females to inform their healthcare provider of a known or suspected pregnancy [see *Warnings and Precautions (5.10)*, *Use in Specific Populations (8.1)*].

Advise females of reproductive potential to use effective contraception during treatment with dactinomycin for injection and for 6 months after final dose [see *Use in Specific Populations (8.3)*]. Advise male patients with female partners of reproductive potential to use effective contraception during treatment with dactinomycin for injection and for 3 months after final dose [see *Use in Specific Populations (8.3)*].

### Lactation

Advise females not to breastfeed during treatment with dactinomycin for injection and for 14 days after the final dose [see *Use in Specific Populations (8.2)*].

Manufactured for:

**Mylan Institutional LLC**

Rockford, IL 61103 U.S.A.

Manufactured by:

**Mylan Laboratories Limited**

Bangalore, India

OCTOBER 2018

**Package/Label Display Panel**

NDC 67457-513-05

Dactinomycin for Injection, USP

500 mcg (0.5 mg)/vial

For Preparation of Intravenous Solutions

CAUTION: CYTOTOXIC AGENT

Lyophilized

Mylan

Rx only

Single-Dose Vial



## Package/Label Display Panel

NDC 67457-513-99

Dactinomycin for Injection, USP

500 mcg (0.5 mg)/vial

For Preparation of Intravenous Solutions

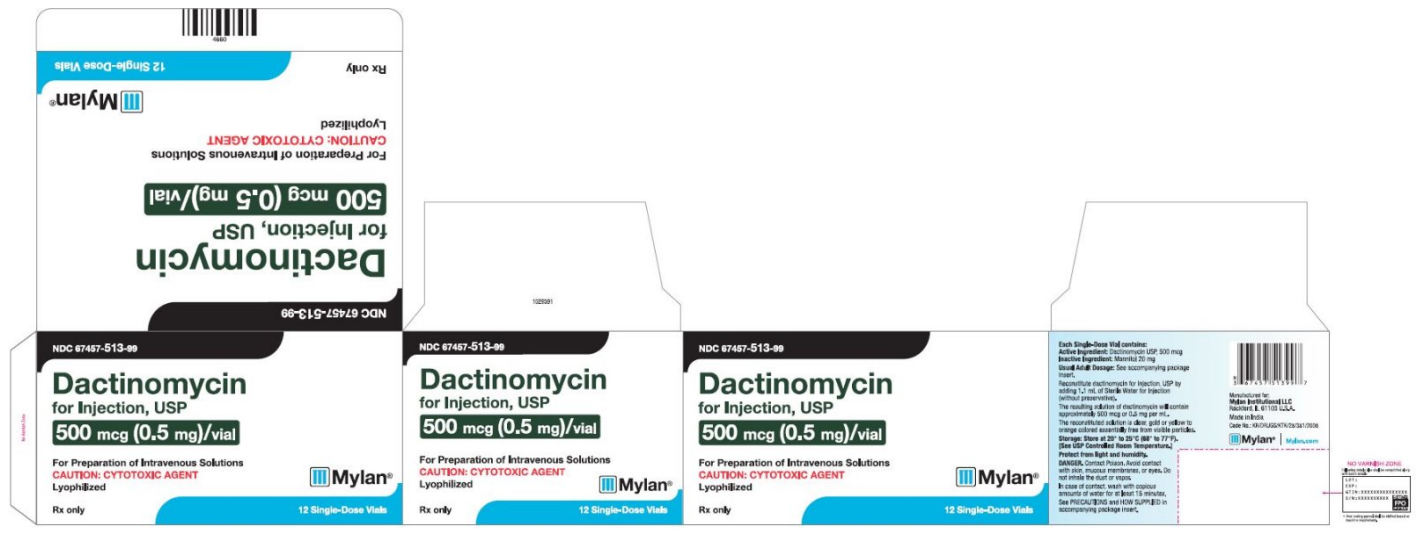
CAUTION: CYTOTOXIC AGENT

Mylan

Lyophilized

Rx only

12 Single-Dose Vials



## DACTINOMYCIN

dactinomycin injection, powder, lyophilized, for solution

### Product Information

<b>Product Type</b>	HUMAN PRESCRIPTION DRUG	<b>Item Code (Source)</b>	NDC:67457-513
<b>Route of Administration</b>	INTRAVENOUS		

### Active Ingredient/Active Moiety

Ingredient Name	Basis of Strength	Strength
DACTINOMYCIN (UNII: 1CC1JFE158) (DACTINOMYCIN - UNII:1CC1JFE158)	DACTINOMYCIN	0.5 mg in 1 mL

### Inactive Ingredients

Ingredient Name	Strength
MANNITOL (UNII: 3OWL53L36A)	

### Packaging

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:67457-513-05	1 in 1 CARTON	01/01/2018	
1		1 mL in 1 VIAL, SINGLE-DOSE; Type 0: Not a Combination Product		
2	NDC:67457-513-99	12 in 1 CARTON	01/01/2018	10/31/2019
2		1 mL in 1 VIAL, SINGLE-DOSE; Type 0: Not a Combination Product		

## Marketing Information

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
ANDA	ANDA203385	01/01/2018	

**Labeler** - Mylan Institutional LLC (790384502)

Revised: 10/2018

Mylan Institutional LLC