MINOCYCLINE HYDROCHLORIDE- minocycline hydrochloride tablet, film coated, extended release
Bryant Ranch Prepack

HIGHLIGHTS OF PRESCRIBING INFORMATION
These highlights do not include all the information needed to use MINOCYCLINE HYDROCHLORIDE EXTENDED-RELEASE TABLETS safely and effectively. See full prescribing information for MINOCYCLINE HYDROCHLORIDE EXTENDED-RELEASE TABLETS.

MINOCYCLINE HYDROCHLORIDE extended-release tablets, for oral use

Initial U.S. Approval: 1971

INDICATIONS AND USAGE

Minocycline hydrochloride extended-release tablets is a tetracycline-class drug indicated to treat inflammatory lesions of non-nodular moderate to severe acne vulgaris in patients 12 years of age and older. (1)

Limitations of Use
This formulation of minocycline has not been evaluated in the treatment of infections. To reduce the development of drug-resistant bacteria and to maintain the effectiveness of other antibacterial drugs, use minocycline hydrochloride extended-release tablets only as indicated. (1)

DOSAGE AND ADMINISTRATION

The recommended dosage of Minocycline hydrochloride extended-release tablets is approximately 1 mg/kg once daily for 12 weeks. (2)

DOSAGE FORMS AND STRENGTHS

Extended-release tablets: 45 mg, 55 mg, 65 mg, 80 mg, 90 mg, 105 mg, 115 mg, and 135 mg (3)

CONTRAINDICATIONS

Known hypersensitivity to any of the tetracyclines. (4)

WARNINGS AND PRECAUTIONS

- *Serious Skin/Hypersensitivity Reactions:* Minocycline has been associated with anaphylaxis, serious skin reactions, erythema multiforme, and drug rash with eosinophilia and systemic symptoms (DRESS) syndrome. Discontinue immediately if symptoms occur. (5.1)
- *Tooth Discoloration and Enamel Hypoplasia:* Use during the second and third trimesters of pregnancy, infancy, and childhood up to the age of 8 years may cause permanent discoloration of the teeth (yellow-gray-brown). (5.2, 8.1, 8.4)
- *Inhibition of Bone Growth:* Use during the second and third trimesters of pregnancy, infancy, and childhood up to the age of 8 years may cause reversible inhibition of bone growth. (5.3, 8.1, 8.4)
- *Clostridioides difficile-Associated Diarrhea (Antibiotic-Associated Colitis):* Discontinue if Clostridioides difficile-associated diarrhea (antibiotic-associated colitis) occurs. (5.4)
- *Hepatotoxicity:* Discontinue if liver injury is suspected. (5.5)
- *Central Nervous System Effects:* May cause central nervous system side effects including light-headedness, dizziness, or vertigo. (5.6)
- *Idiopathic Intracranial Hypertension:* May cause idiopathic intracranial hypertension in adults and adolescents. Discontinue if symptoms occur. (5.7)
- *Autoimmune Syndromes:* Minocycline has been associated with autoimmune syndromes; discontinue immediately if symptoms occur. (5.8)
- *Metabolic Effects:* If renal impairment exists, reduce minocycline hydrochloride extended-release tablets dosage. (5.9)

ADVERSE REACTIONS

The most commonly observed adverse reactions (incidence ≥ 5%) are headache, fatigue, dizziness, and pruritus. (6.1)

To report SUSPECTED ADVERSE REACTIONS, contact Ascend Laboratories, LLC at 1-877-272-7901 or FDA at 1-800-FDA-1088 or *www.fda.gov/medwatch.*

DRUG INTERACTIONS

Patients who are on anticoagulant therapy may require downward adjustment of their anticoagulant dosage. (7.1)

USE IN SPECIFIC POPULATIONS

Lactation: Breastfeeding is not recommended. (8.2)

See 17 for PATIENT COUNSELING INFORMATION.

Revised: 3/2026

FULL PRESCRIBING INFORMATION: CONTENTS*

FULL PRESCRIBING INFORMATION

1 INDICATIONS & USAGE

Minocycline hydrochloride extended-release tablets is indicated to treat inflammatory lesions of non-nodular moderate to severe acne vulgaris in patients 12 years of age and older.

Limitations of Use

- Minocycline hydrochloride extended-release tablets did not demonstrate any effect on non-inflammatory acne lesions.
- This formulation of minocycline has not been evaluated in the treatment of infections *[see Clinical Studies (14)].*
- To reduce the development of drug-resistant bacteria as well as to maintain the effectiveness of other antibacterial drugs, use minocycline hydrochloride extended-release tablets only as indicated *[see Warnings and Precautions (5.12)].*

2 DOSAGE & ADMINISTRATION

The recommended dosage of minocycline hydrochloride extended-release tablets is approximately 1 mg/kg once daily for 12 weeks. Table 1 provides the recommended minocycline hydrochloride extended-release tablets dosage based upon weight ranges.

Table 1: Dosing Table for Minocycline hydrochloride extended-release tablets

Patient's Weight(kg)	Recommended Dosage (mg/day)
45 to 49	45
50 to 59	55
60 to 71	65
72 to 84	80
85 to 96	90
97 to 110	105
111 to 125	115
126 to 136	135

Higher dosages have not shown to be of additional benefit in the treatment of inflammatory lesions of acne and may be associated with more acute vestibular adverse

reactions.

Swallow tablets whole. Do not chew, crush, or split the extended-release tablets.

Administer minocycline hydrochloride extended-release tablets with or without food *[see Clinical Pharmacology (12.3)].* Ingestion of food along with minocycline hydrochloride extended-release tablets may help reduce the risk of esophageal irritation and ulceration.

In patients with renal impairment, decrease the daily dosage by either reducing the recommended individual doses and/or by extending the time intervals between doses *[see Warnings and Precautions (5.9)].*

3 DOSAGE FORMS & STRENGTHS

- 45 mg extended-release tablets: grey coloured capsule shaped film coated tablets, debossed with “45” on one side, plain on other side.
- 55 mg extended-release tablets: Pink coloured capsule shaped film coated tablets, debossed with "55" on one side, plain on other side.
- 65 mg extended-release tablets: blue coloured capsule shaped film coated tablets, debossed with “65” on one side, plain on other side.
- 80 mg extended-release tablets: Greyish brown coloured capsule shaped film coated tablets, debossed with "80" on one side, plain on other side.
- 90 mg extended-release tablets: yellow coloured capsule shaped film coated tablets, debossed with “90” on one side, plain on other side.
- 105 mg extended-release tablets: Purple coloured capsule shaped film coated tablets, debossed with "105" on one side, plain on other side.
- 115 mg extended-release tablets: green coloured capsule shaped film coated tablets, debossed with “115” on one side, plain on other side.
- 135 mg extended-release tablets: pink (orange-brown) coloured capsule shaped film coated tablets, debossed with “135” on one side, plain on other side

4 CONTRAINDICATIONS

Minocycline hydrochloride extended-release tablets is contraindicated in patients with history of a hypersensitivity reaction to any of the *tetracyclines [see Warnings and Precautions (5.1)].*

5 WARNINGS AND PRECAUTIONS

5.1 Serious Skin/Hypersensitivity Reactions

Cases of anaphylaxis, serious skin reactions (e.g., Stevens-Johnson syndrome), erythema multiforme, and drug rash with eosinophilia and systemic symptoms (DRESS) syndrome have been reported postmarketing with minocycline use in patients with acne. DRESS syndrome consists of cutaneous reaction (such as rash or exfoliative dermatitis), eosinophilia, and one or more of the following visceral complications such as: hepatitis, pneumonitis, nephritis, myocarditis, and pericarditis. Fever and lymphadenopathy may be present. In some cases, death has been reported. If this

syndrome is recognized, minocycline hydrochloride extended-release tablets should be discontinued immediately.

Fixed drug eruptions have occurred with minocycline and other tetracyclines. Worsening severity upon subsequent administrations, including generalized bullous fixed drug eruption, has been observed with other tetracyclines *[seeADVERSE REACTIONS (6.2)]*. If severe skin/hypersensitivity reactions occur, discontinue minocycline hydrochloride extended-release tablets and institute appropriate therapy.

5.2 Tooth Discoloration and Enamel Hypoplasia

The use of tetracycline-class drugs, including minocycline hydrochloride extended-release tablets, during tooth development (second and third trimesters of pregnancy, infancy, and childhood up to the age of 8 years) may cause permanent discoloration of the teeth (yellow-graybrown). Permanent discoloration of the teeth is more common during long-term use of tetracycline-class drugs but has been observed following repeated short-term courses. Enamel hypoplasia has also been reported. Use of minocycline hydrochloride extended-release tablets is not recommended during tooth development.

Advise the patient of the potential risk to the fetus if minocycline hydrochloride extended-release tablets is used during the second or third trimester of pregnancy *[see Use in Specific Populations (8.1, 8.4)].*

5.3 Inhibition of Bone Growth

The use of tetracycline-class drugs, including minocycline hydrochloride extended-release tablets, during the second and third trimesters of pregnancy, infancy, and childhood up to the age of 8 years may cause reversible inhibition of bone growth. All tetracyclines, including minocycline hydrochloride extended-release tablets, form a stable calcium complex in any bone-forming tissue. A decrease in fibula growth rate has been observed in premature human infants given oral tetracycline in doses of 25 mg/kg every 6 hours. This reaction was shown to be reversible when the drug was discontinued.

Advise the patient of the potential risk to the fetus if minocycline hydrochloride extended-release tablets is used during the second or third trimester of pregnancy *[see Use in Specific Populations (8.1, 8.4)].*

5.4 Clostridioides difficile Associated Diarrhea (Antibiotic Associated Colitis)

Clostridioides difficile-associated diarrhea (CDAD) has been reported with nearly all antibacterial agents, including minocycline, and may range in severity from mild diarrhea to fatal colitis.

C. difficile produces toxins A and B which contribute to the development of CDAD. Hypertoxin-producing strains of *C. difficile* cause increased morbidity and mortality, as these infections can be refractory to antimicrobial therapy and may require colectomy.

CDAD must be considered in all patients who present with diarrhea following antibiotic use. Careful medical history is necessary since CDAD has been reported to occur over two months after the administration of antibacterial agents.

If CDAD is suspected or confirmed, discontinue minocycline hydrochloride extended-release tablets.

5.5 Hepatotoxicity

Postmarketing cases of serious liver injury, including irreversible drug-induced hepatitis and fulminant hepatic failure (sometimes fatal), have been reported with minocycline use in the treatment of acne. Discontinue minocycline hydrochloride extended-release tablets if liver injury is suspected.

5.6 Central Nervous System Effects

Central nervous system side effects including light-headedness, dizziness, or vertigo have been reported with minocycline therapy. Caution patients who experience these symptoms about driving vehicles or using hazardous machinery while on minocycline hydrochloride extended-release tablets. These symptoms may disappear during therapy and usually rapidly disappear when minocycline hydrochloride extended-release tablets is discontinued.

5.7 Idiopathic Intracranial Hypertension

Idiopathic intracranial hypertension has been associated with the use of tetracycline-class drugs, including minocycline hydrochloride extended-release tablets. Clinical manifestations of idiopathic intracranial hypertension include headache, blurred vision, diplopia, and vision loss; papilledema can be found on fundoscopy. Women of childbearing age who are overweight or have a history of idiopathic intracranial hypertension are at a greater risk for developing idiopathic intracranial hypertension. Avoid concomitant use of isotretinoin and minocycline hydrochloride extended-release tablets because isotretinoin, a systemic retinoid, is also known to cause idiopathic intracranial hypertension.

Permanent visual loss may exist, even after the medication is discontinued. If visual disturbance occurs during treatment, prompt ophthalmologic evaluation is warranted. Because intracranial pressure can remain elevated for weeks after drug cessation, monitor patients until they stabilize.

5.8 Autoimmune Syndromes

Tetracyclines have been associated with the development of autoimmune syndromes. The long-term use of minocycline in the treatment of acne has been associated with drug-induced lupus-like syndrome, autoimmune hepatitis, and vasculitis. Sporadic cases of serum sickness have presented shortly after minocycline use. Symptoms may be manifested by fever, rash, arthralgia, and malaise. Evaluate symptomatic patients. If symptoms occur, immediately discontinue use of minocycline hydrochloride extended-release tablets.

5.9 Metabolic Effects

The anti-anabolic action of the tetracyclines, including minocycline hydrochloride extended-release tablets, may cause an increase in blood urea nitrogen (BUN). In patients with significantly impaired renal function, higher serum levels of tetracycline-class drugs may lead to azotemia, hyperphosphatemia, and acidosis. If renal impairment exists, lower the total doses of minocycline hydrochloride extended-release tablets, and if therapy is prolonged, monitor serum levels minocycline hydrochloride extended-release tablets.

5.10 Photosensitivity

Photosensitivity manifested by an exaggerated sunburn reaction has been observed in some individuals taking tetracyclines, including minocycline. Advise patients to minimize or avoid exposure to natural or artificial sunlight (e.g., tanning beds or UVA/B treatment) while using minocycline hydrochloride extended-release tablets. Instruct patients to use sunscreen products and wear protective apparel (e.g., hat) when exposure to sun cannot be avoided.

5.11 Tissue Hyperpigmentation

Tetracycline-class antibiotics are known to cause hyperpigmentation. Tetracycline therapy may induce hyperpigmentation in many organs, including nails, bone, skin, eyes, thyroid, visceral tissue, oral cavity (e.g., teeth, mucosa, alveolar bone), sclerae, and heart valves. Skin and oral pigmentation has been reported to occur independently of time or amount of drug administration, whereas other tissue pigmentation has been reported to occur upon prolonged administration. Skin pigmentation includes diffuse pigmentation as well as over sites of scars or injury.

5.12 Development of Drug-Resistant Bacteria

Bacterial resistance to tetracyclines may develop in patients using minocycline hydrochloride extended-release tablets. Because of the potential for drug-resistant bacteria to develop during the use of minocycline hydrochloride extended-release tablets, it should be used only as indicated.

5.13 Superinfection

Use of minocycline hydrochloride extended-release tablets may result in overgrowth of non-susceptible organisms, including fungi. If superinfection occurs, discontinue minocycline hydrochloride extended-release tablets and institute appropriate therapy.

5.14 Laboratory Monitoring

Perform periodic laboratory evaluations of organ systems, including hematopoietic, renal, and hepatic studies.

6 ADVERSE REACTIONS

The following clinically significant adverse reactions are described elsewhere in the labeling:

- Serious Skin/Hypersensitivity Reactions *[see Warnings and Precautions (5.1)]*
- *Clostridioides difficile*-Associated Diarrhea (Antibiotic-Associated Colitis) *[see Warnings and Precautions (5.4)]*

- Hepatotoxicity *[see Warnings and Precautions (5.5)]*
- Central Nervous System Effects *[see Warnings and Precautions (5.6)]*
- Idiopathic Intracranial Hypertension *[see Warnings and Precautions (5.7)]*

6.1 Clinical Trials Experience

Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in practice.

The following table summarizes selected adverse reactions reported in clinical trials at a rate of ≥1% for minocycline hydrochloride extended-release tablets and higher than placebo.

Table 2: Selected Treatment-Emergent Adverse Reactions in at Least 1% of Clinical Trial Subjects and Higher than Placebo

Adverse Reactions	**Minocycline Hydrochloride Extended-Release Tablets (1 mg/kg) N = 674 (%)**	**PLACEBO N = 364 (%)**
At least one treatment-emergent event	379 (56)	197 (54)
Fatigue	62 (9)	24 (7)
Dizziness	59 (9)	17 (5)
Pruritus	31 (5)	16 (4)
Malaise	26 (4)	9 (3)
Somnolence	13 (2)	3 (1)
Urticaria	10 (2)	1 (0)
Tinnitus	10 (2)	5 (1)
Arthralgia	9 (1)	2 (0)
Vertigo	8 (1)	3 (1)

6.2 Postmarketing Experience

The following adverse reactions have been reported with minocycline hydrochloride use in a variety of indications. Because these reactions are 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.

Skin and hypersensitivity reactions: anaphylaxis, angioedema, DRESS syndrome, erythema multiforme, Stevens- Johnson syndrome, acute febrile neutrophilic dermatosis (Sweet’s syndrome), fixed drug eruptions, balanitis, anaphylactoid purpura, photosensitivity, pigmentation of skin and mucous membranes.

Autoimmune conditions: polyarthralgia, pericarditis, exacerbation of systemic lupus, pulmonary infiltrates with eosinophilia, lupus-like syndrome.

Central nervous system: idiopathic intracranial hypertension, bulging fontanels in infants, decreased hearing.

Endocrine: brown-black microscopic thyroid discoloration, abnormal thyroid function.

Oncology: thyroid cancer.

Oral: glossitis, dysphagia, tooth discoloration.

Gastrointestinal: enterocolitis, pancreatitis, hepatitis, liver failure.

Renal: acute renal failure.

Hematology: hemolytic anemia, thrombocytopenia, eosinophilia.

7 DRUG INTERACTIONS

7.1 Anticoagulants

Because tetracyclines have been shown to depress plasma prothrombin activity, patients who are on anticoagulant therapy may require downward adjustment of their anticoagulant dosage.

7.2 Penicillin

Because bacteriostatic drugs may interfere with the bactericidal action of penicillin, avoid giving minocycline hydrochloride extended-release tablets in conjunction with penicillin.

7.3 Antacids and Iron Preparations

Absorption of tetracyclines is impaired by antacids containing aluminum, calcium, or magnesium and iron-containing preparations.

7.4 Drug/Laboratory Test Interactions

False elevations of urinary catecholamine levels may occur due to interference with the fluorescence test.

8 USE IN SPECIFIC POPULATIONS

8.1 Pregnancy

Risk Summary

Tetracycline class drugs, including minocycline hydrochloride extended-release tablets may cause permanent discoloration of deciduous teeth and reversible inhibition of bone growth when administered during the second and third trimesters of pregnancy *[see Warnings andPrecautions (5.2, 5.3) and Use in Specific Populations (8.4)].* A few postmarketing cases of limb reductions have been reported over decades of use; however, the association is unclear. The limited data from postmarketing reports are not sufficient to inform a drug-associated risk for birth defects or miscarriage.

In animal reproduction studies conducted in pregnant rats and rabbits, fetuses with bent limb bones were observed following oral administration of minocycline during organogenesis at systemic exposures 3 and 2 times, respectively, the exposure associated with the maximum recommended human dose (MRHD) *(see Data)*.

If a patient becomes pregnant while taking this drug, advise the patient of the risk to the fetus and to discontinue treatment.

The background risk of major birth defects and miscarriage for the indicated population is unknown. All pregnancies have a background risk of birth defect, loss, or other adverse outcomes. 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

Human Data

The use of tetracycline class drugs, including minocycline hydrochloride extended-release tablets, during tooth development (second and third trimesters of pregnancy, infancy, and childhood up to the age of 8 years) may cause permanent discoloration of deciduous teeth (yellow-gray-brown). Permanent discoloration of the teeth is more common during long-term use of the drug but has been observed following repeated short-term courses *[see Warnings and Precautions (5.2)]*.

Animal Data

Results of animal studies indicate that tetracyclines cross the placenta, are found in fetal tissues, and can cause delayed skeletal development in the developing fetus. Evidence of embryotoxicity has been noted in animals treated early in pregnancy *[see Warnings and Precautions (5.3)].*

Minocycline induced skeletal malformations (bent limb bones) in fetuses when administered to pregnant rats and rabbits during the period of organogenesis at doses of 30 mg/kg/day and 100 mg/kg/day, respectively (3 times the MRHD and 2 times the MRHD on an AUC comparison basis, respectively). Reduced mean fetal body weight was observed in studies in which minocycline was administered to pregnant rats at an oral dose of 10 mg/kg/day (approximately equal to the MRHD on an AUC comparison basis).

Minocycline was assessed for effects on peri- and post-natal development of rats in a study that involved oral administration to pregnant rats during the period of organogenesis through lactation at dosages of 5, 10, or 50 mg/kg/day. In this study, body weight gain was significantly reduced in pregnant females that received 50 mg/kg/day (2.5 times the MRHD on an AUC comparison basis). No effects of treatment on the duration of the gestation period or the number of live pups born per litter were observed. Gross external anomalies observed in offspring of animals that received minocycline included reduced body size, improperly rotated forelimbs, and reduced size of extremities. No effects were observed on the physical development, behavior, learning ability, or reproduction of the offspring of animals that received minocycline.

8.2 Lactation

Risk Summary

Tetracycline-class antibiotics, including minocycline, are present in breast milk following oral administration. There are no data on the effects of minocycline on milk production. Because of the potential for serious adverse reactions, including tooth discoloration and inhibition of bone growth, advise patients that breastfeeding is not recommended during minocycline hydrochloride extended-release tablets therapy and for 4 days after the final dose *[see Warnings and Precautions (5.2, 5.3)]*.

8.4 Pediatric Use

The safety and effectiveness of minocycline hydrochloride extended-release tablets have been established in pediatric patients 12 years of age and older for the treatment of inflammatory lesions of non-nodular moderate to severe acne vulgaris *[see Clinical Studies (14)]*. Tooth discoloration and inhibition of bone growth have been observed in pediatric patients *[see Warnings and Precaution (5.2,5.3)]*. Use of tetracycline-class antibiotics below the age of 8 is not recommended due to the potential for tooth discoloration *[see Warnings and Precautions (5.2)]*.

Safety and effectiveness of minocycline hydrochloride extended-release tablets have not been established in pediatric patients younger than 12 years of age.

8.5 Geriatric Use

Clinical studies of minocycline hydrochloride extended-release tablets 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 concomitant disease or other drug therapy.

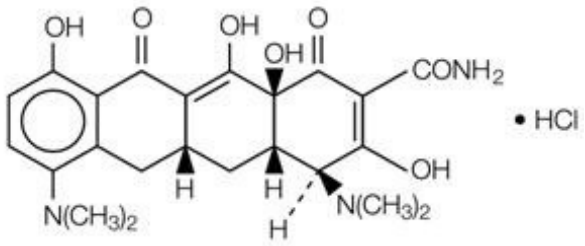
10 OVERDOSAGE

Minocycline is not removed in significant quantities by hemodialysis or peritoneal dialysis. In case of overdosage, discontinue minocycline hydrochloride extended-release tablets, treat symptomatically, and institute supportive measures. Call Poison Control Center at 1-800-222-1222 for the latest recommendations.

11 DESCRIPTION

Minocycline hydrochloride, a semi synthetic derivative of tetracycline, is [4*S*-(4α,4aα,5aα, 12aα)]-4,7–Bis(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,10,12,12a-tetrahydroxy-1,11-dioxo-2-naphthacenecarboxamide monohydrochloride.

The structural formula is represented below:



$C_{23}H_{27}N_3O_7$•HCl M. W. 493.95

Minocycline hydrochloride extended-release tablets, USP for oral administration contain minocycline hydrochloride USP equivalent to 45 mg, 55 mg, 65 mg, 80 mg, 90 mg, 105 mg, 115 mg, and 135 mg of minocycline. In addition, 45 mg, 55 mg, 65 mg, 80 mg, 90 mg, 105 mg, 115 mg, and 135 mg tablets contain the following inactive ingredients: lactose monohydrate, hypromellose type 2910, hypromellose type 2208, colloidal silicon dioxide, magnesium stearate, titanium dioxide and triacetin.

The 45 mg tablets also contain iron oxide black.

The 65 mg tablets also contain FD&C blue #1/brilliant blue FCF aluminium lake,

polyethylene glycol 3350, FD&C blue #2/indigo carmine aluminum lake and D&C yellow #10 aluminum lake.

The 55 mg tablets also contain macrogol, FD&C RED #40.

The 80 mg tablets also contain macrogol, FD&C blue #2, FD&C red #40, FD&C yellow #6.

The 90 mg tablets also contain iron oxide yellow and polyethylene glycol 3350.

The 105 mg tablets also D&C red #27, macrogol, FD&C blue #1.

The 115 mg tablets also contain D&C yellow #10 aluminum lake, FD&C blue #1/brilliant blue FCF aluminium lake and FD&C blue #2/indigo carmine aluminum lake.

The 135 mg tablets also contain polyethylene glycol 3350 and iron oxide red.

The USP Dissolution Test is pending.

12 CLINICAL PHARMACOLOGY

12.1 Mechanism of Action

The mechanism of action of minocycline hydrochloride extended-release tablets for the treatment of acne is unknown.

12.2 Pharmacodynamics

The pharmacodynamics of minocycline hydrochloride extended-release tablets for the treatment of acne are unknown.

12.3 Pharmacokinetics

Minocycline hydrochloride extended-release tablets are not bioequivalent to non-modified release minocycline products. Based on pharmacokinetic studies in healthy adults, minocycline hydrochloride extended-release tablets produce a delayed T_{max} at 3.5 to 4.0 hours as compared to a non-modified release reference minocycline product (T_{max} at 2.25 to 3 hours). At steady-state (Day 6), the mean AUC (0–24) and C_{max} were 33.32 mcg×hr/mL and 2.63 mcg/mL for minocycline hydrochloride extended-release tablets and 46.35 mcg×hr/mL and 2.92 mcg/mL for minocycline hydrochloride capsules, respectively. These parameters are based on dose adjusted to 135 mg/day for both products.

A single-dose, four-way crossover study demonstrated that minocycline hydrochloride extended-release tablets used in the study (45 mg, 90 mg, 135 mg) exhibited dose-proportional pharmacokinetics. In another single-dose, five-way crossover pharmacokinetic study, minocycline hydrochloride extended-release tablets 55 mg, 80 mg, and 105 mg were shown to be doseproportional to minocycline hydrochloride extended-release tablets 90 mg and 135 mg.

When minocycline hydrochloride extended-release tablets were administered concomitantly with a meal that included dairy products, the extent and timing of absorption of minocycline did not differ from that of administration under fasting conditions.

Minocycline is lipid soluble and distributes into the skin and sebum.

13 NONCLINICAL TOXICOLOGY

13.1 Carcinogenesis & Mutagenesis & Impairment Of Fertility

In a carcinogenicity study in which minocycline HCl was orally administered to male and female rats once daily for up to 104 weeks at dosages up to 200 mg/kg/day, minocycline HCl was associated in both sexes with follicular cell tumors of the thyroid gland, including increased incidences of adenomas, carcinomas and the combined incidence of adenomas and carcinomas in males, and adenomas and the combined incidence of adenomas and carcinomas in females. In a carcinogenicity study in which minocycline HCl was orally administered to male and female mice once daily for up to 104 weeks at

dosages up to 150 mg/kg/day, exposure to minocycline HCl did not result in a significantly increased incidence of neoplasms in either males or females.

Minocycline was not mutagenic in vitro in a bacterial reverse mutation assay (Ames test) or CHO/HGPRT mammalian cell assay in the presence or absence of metabolic activation. Minocycline was not clastogenic in vitro using human peripheral blood lymphocytes or in vivo in a mouse micronucleus test.

Male and female reproductive performance in rats was unaffected by oral doses of minocycline of up to 300 mg/kg/day (40 times the MRHD on an AUC comparison basis). However, oral administration of 100 or 300 mg/kg/day of minocycline to male rats (15 to 40 times the MRHD on an AUC comparison basis) adversely affected spermatogenesis. Effects observed at 300 mg/kg/day included a reduced number of sperm cells per gram of epididymis, an apparent reduction in the percentage of sperm that were motile, and (at 100 and 300 mg/kg/day) increased numbers of morphologically abnormal sperm cells. Morphological abnormalities observed in sperm samples included absent heads, misshapen heads, and abnormal flagella.

14 CLINICAL STUDIES

The safety and efficacy of minocycline hydrochloride extended-release tablets in the treatment of inflammatory lesions of non-nodular moderate to severe acne vulgaris was assessed in two 12-week, multi-center, randomized, double-blind, placebo-controlled trials in adult and pediatric subjects 12 years of age and older (Trial 1 and Trial 2). A total of 924 subjects with non-nodular moderate to severe acne vulgaris received minocycline hydrochloride extended-release tablets or placebo for a total of 12 weeks. The mean age of subjects was 20 years and subjects were from the following racial groups: White (73%), Hispanic (13%), Black (11%), Asian/Pacific Islander (2%), and Other (2%).

The two primary efficacy endpoints were:

1) Mean percent change in inflammatory lesion counts from Baseline to 12 weeks.

2) Percentage of subjects with an Evaluator's Global Severity Assessment (EGSA) of clear or almost clear at 12 weeks.

Efficacy results are presented in Table 4.

Table 4: Efficacy Results at Week 12 in Subjects with Non-nodular Moderate to Severe Acne Vulgaris in Trial 1 and Trial 2

	Trial 1		**Trial 2**	
	Minocycline hydrochloride extended-release tablets (1 mg/kg) N = 300	**Placebo N = 151**	**Minocycline hydrochloride extended-release tablets (1 mg/kg) N = 315**	**Placebo N = 158**

Mean Percent Improvement in Inflammatory Lesions	43.1%	31.7%	45.8%	30.8%
No. (%) of Subjects Clear or Almost Clear on the EGSA*	52 (17.3%)	12 (7.9%)	50 (15.9%)	15 (9.5%)

*Evaluator's Global Severity Assessment

Minocycline hydrochloride extended-release tablets did not demonstrate any effect on non-inflammatory lesions (benefit or worsening).

16 HOW SUPPLIED/STORAGE AND HANDLING

16.1 How Supplied

Minocycline hydrochloride extended-release tablets, USP are supplied as aqueous film coated tablets containing Minocycline hydrochloride.

The 80 mg extended release tablets are Greyish brown colored capsule shaped film coated tablets, debossed with "80" on one side, plain on other side. Each tablet contains Minocycline hydrochloride equivalent to 80 mg minocycline, supplied as follows:

NDC 72162-1839-3: 30 Tablets in a Bottle
16.2 Storage

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

16.3 Handling

Keep out of reach of children.

Protect from light, moisture, and excessive heat.

Dispense in tight, light-resistant container with child-resistant closure.

Repackaged/Relabeled by:
Bryant Ranch Prepack
Burbank, CA 91504

17 PATIENT COUNSELING INFORMATION

Advise the patient to read the FDA-approved patient labeling (Patient Information).

Patients taking minocycline hydrochloride extended-release tablets should receive the following information and instructions:

Administration Instructions

- Minocycline hydrochloride extended-release tablets should be taken exactly as directed.

- Advise patients to swallow minocycline hydrochloride extended-release tablets whole and not to chew, crush, or split the tablets *[see Dosage and Administration (2)]*.

Serious Skin/Hypersensitivity Reactions

- Inform patients that serious skin reactions have occurred with the minocycline use in patients with acne. Advise patients to discontinue use of minocycline hydrochloride extended-release tablets and contact their healthcare provider immediately at the first evidence of skin erythema *[see Warnings and Precautions (5.1)]*.

Tooth Discoloration and Enamel Hypoplasia

- Advise patients that minocycline hydrochloride extended-release tablets use in pregnancy may cause permanent tooth discoloration of deciduous teeth. Advise patients to discontinue minocycline hydrochloride extended-release tablets during pregnancy and to inform their healthcare provider right away if they become pregnant during treatment *[see Warnings and Precautions (5.2), Use in Specific Populations (8.1)]*.
- Advise caregivers of pediatric patients that minocycline hydrochloride extended-release tablets use may cause permanent discoloration of deciduous and permanent teeth *[see Warnings and Precautions (5.2), Use in Specific Populations (8.4)]*.

Inhibition of Bone Growth

- Advise patients that minocycline hydrochloride extended-release tablets use in pregnancy may cause inhibition of fetal bone growth. Advise patients to discontinue minocycline hydrochloride extended-release tablets during pregnancy and to inform their healthcare provider right away if they become pregnant during treatment *[see Warnings and Precautions (5.3), Use in Specific Populations (8.1)].*

Clostridioides difficile-Associated Diarrhea (Antibiotic-Associated Colitis)

- Advise patients that *Clostridioides difficile*-associated diarrhea (antibiotic-associated colitis) can occur with minocycline therapy, including SOLODYN. If patients develop watery or bloody stools, advise patients to seek medical attention *[see Warnings and Precautions (5.4)]*.

Hepatotoxicity

- Inform patients about the possibility of hepatotoxicity. Advise patients to seek medical advice if they experience signs or symptoms of hepatotoxicity, including loss of appetite, tiredness, diarrhea, jaundice, bleeding easily, confusion, and sleepiness *[see Warnings and Precautions (5.5)]*.

Central Nervous System Effects

- Inform patients that central nervous system adverse reactions including dizziness or vertigo have been reported with oral minocycline therapy. Caution patients about driving vehicles or using hazardous machinery if they experience such symptoms while on minocycline hydrochloride extended-release tablets *[see Warnings and Precautions (5.6)]*.

Idiopathic Intracranial Hypertension

- Inform patients that idiopathic intracranial hypertension can occur with minocycline therapy. Advise patients to seek medical attention if they develop unusual headache, visual symptoms, such as blurred vision, diplopia, and vision loss *[see Warnings and Precautions (5.7)]*.

Autoimmune Syndromes

- Inform patients that autoimmune syndromes, including drug-induced lupus-like syndrome, autoimmune hepatitis, vasculitis, and serum sickness have been observed with tetracycline-class drugs, including minocycline. Symptoms may be manifested by arthralgia, fever, rash, and malaise. Advise patients who experience such symptoms to immediately discontinue minocycline hydrochloride extended-release tablets and seek medical help *[see Warnings and Precautions (5.8)]*.

Photosensitivity

- Inform patients that photosensitivity manifested by an exaggerated sunburn reaction has been observed in some individuals taking tetracyclines, including minocycline. Advise patients to minimize or avoid exposure to natural or artificial sunlight (i.e., tanning beds or UVA/B treatment) while using minocycline hydrochloride extended-release tablets. Instruct patients to use sunscreen and wear protective clothing (e.g., hat) over treated areas when exposure to sun cannot be avoided *[see Warnings andPrecautions (5.10)]*.

Tissue Hyperpigmentation

- Inform patients that minocycline hydrochloride extended-release tablets may cause discoloration of skin, scars, teeth, or gums *[see Warnings and Precautions (5.11)]*.

Lactation

- Advise patients that minocycline hydrochloride extended-release tablets therapy is not recommended during breast feeding for 4 days after the final dose *[see Use in Specific Populations (8.2)]*.

Manufactured by:

Alkem Laboratories Ltd.,

Mumbai - 400 013, INDIA.

Distributed by:

Ascend Laboratories, LLC

Bedminster, NJ 07921

PATIENT INFORMATION

Minocycline hydrochloride

(min-oh-sye-kleen hye-droe-KLOR-ide)

extended-release tablets

What is minocycline hydrochloride extended-release tablets?

Minocycline hydrochloride extended-release tablets is a prescription medicine used to treat pimples and red bumps (non-nodular inflammatory lesions) that happen with moderate to severe acne vulgaris in people 12 years of age and older.

Minocycline hydrochloride extended-release tablets is not effective for acne that is not red-looking (non-inflammatory acne).

It is not known if minocycline hydrochloride extended-release tablets is:

- safe and effective for the treatment of infections.
- safe and effective in children under 12 years of age.

Who should not take minocycline hydrochloride extended-release tablets?

Do not take minocycline hydrochloride extended-release tablets if you are allergic to any tetracycline medicines. Ask your healthcare provider or pharmacist for a list of these medicines if you are not sure.

Before taking minocycline hydrochloride extended-release tablets, tell your healthcare provider about all of your medical conditions, including if you:

- have kidney problems
- have liver problems
- have diarrhea or watery stools
- have had increased pressure around your brain that may have caused vision problems
- are pregnant or plan to become pregnant. Minocycline hydrochloride extended-release tablets may harm your unborn baby. Taking minocycline hydrochloride extended-release tablets while you are pregnant may cause serious side effects on the growth of bone and teeth of your baby. Stop taking minocycline hydrochloride extended-release tablets and call your healthcare provider right away if you become pregnant during treatment with minocycline hydrochloride extended-release tablets.
- are breastfeeding or plan to breastfeed. Minocycline hydrochloride passes into your breast milk and may harm your baby. Do not breastfeed during treatment with minocycline hydrochloride extended-release tablets and for 4 days after your final dose.

Tell your healthcare provider about all the other medicines you take, including prescription and over-the-counter medicines, vitamins, and herbal supplements.

Minocycline hydrochloride extended-release tablets and other medicines may affect each other and can cause serious side effects. Minocycline hydrochloride extended-release tablets may affect the way other medicines work, and other medicines may affect how minocycline hydrochloride extended-release tablets works.

Especially tell your healthcare provider if you take:

- a blood thinner medicine
- a penicillin antibiotic medicine
- antacids that contain aluminum, calcium, or magnesium or iron-containing medicines
- an acne medicine that contains isotretinoin

Ask your healthcare provider or pharmacist if you are not sure if your medicine is one that is listed above.

Know the medicines you take. Keep a list of them to show your healthcare provider and pharmacist.

How should I take minocycline hydrochloride extended-release tablets?

- Take minocycline hydrochloride extended-release tablets exactly as your healthcare provider tells you.
- Take minocycline hydrochloride extended-release tablets 1 time per day with or without food. Taking minocycline hydrochloride extended-release tablets with food may lower your chances of getting irritation or ulcers in your esophagus. Your esophagus is the tube that connects your mouth to your stomach.
- Swallow minocycline hydrochloride extended-release tablets whole. Do not chew, crush, or split the tablets.

If you take too much minocycline hydrochloride extended-release tablets, stop taking minocycline hydrochloride extended-release tablets and call your healthcare provider or go to the nearest hospital emergency room, or contact a poison control center right away at 1-800-222-1222.

What should I avoid while taking minocycline hydrochloride extended-release tablets?

- You should not drive or operate dangerous machinery until you know how minocycline hydrochloride extended-release tablets affects you. Minocycline hydrochloride extended-release tablets may cause you to feel dizzy or light-headed or have a spinning feeling (vertigo).

- Avoid sunlight or artificial sunlight, such as sunlamps and tanning beds during treatment with minocycline hydrochloride extended-release tablets. Minocycline hydrochloride extended-release tablets can make your skin sensitive to the sun and artificial sunlight and you could get severe sunburn during treatment. Use sunscreen and wear a hat and protective clothing that covers your skin while out in the sunlight during treatment with minocycline hydrochloride extended-release tablets.

What are possible side effects of minocycline hydrochloride extended-release tablets?

Minocycline hydrochloride extended-release tablets may cause serious side effects, including:

- **Serious skin and allergic reactions** have happened during treatment with minocycline. Minocycline hydrochloride extended-release tablets may cause serious skin or allergic reactions that may also affect parts of your body such as your liver, lungs, kidneys, and heart. Sometimes these reactions can lead to death. Stop taking minocycline hydrochloride extended-release tablets and call your healthcare provider right away or go to the nearest hospital emergency room if you have any of the following signs or symptoms, including:
  - skin redness, rash, hives, sores in your mouth, or your skin blisters and peels
  - swelling of your face, eyes, lips, tongue, or throat
  - trouble swallowing or breathing
  - blood in your urine
  - fever, yellowing of the skin or the whites of your eyes (jaundice), dark colored urine
  - pain on the right side of the stomach area (abdominal pain)
  - chest pain or abnormal heartbeats
  - swelling in your legs, ankles, and feet
- **Permanent tooth discoloration and problems with tooth enamel.** Minocycline hydrochloride extended-release tablets may permanently turn a baby or child's teeth yellow-gray-brown during tooth development. Minocycline hydrochloride extended-release tablets may also cause tooth enamel to not develop properly. You should not use minocycline hydrochloride extended-release tablets during tooth development. Tooth development happens in the second and third trimesters of pregnancy, and in children from birth to 8 years of age. See **"What should I tell my healthcare provider before taking minocycline hydrochloride extended-release tablets?"**
- **Slow bone growth.** Minocycline hydrochloride extended-release tablets may cause slow bone growth if it is used during the second and third trimesters of pregnancy and if it is used in infants and children up to 8 years of age. Slow bone growth is reversible after stopping treatment with minocycline hydrochloride extended-release tablets.
- **Diarrhea (antibiotic associated colitis).** Antibiotic associated colitis can happen with most antibiotics, including minocycline hydrochloride extended-release tablets. This type of diarrhea may be caused by an infection (Clostridioides difficile) in your intestines and can be severe and can lead to death. Call your healthcare provider right away if you get watery diarrhea, diarrhea that does not go away, or bloody stools.
- **Liver problems.** Minocycline hydrochloride extended-release tablets may cause serious liver problems that can lead to death. Stop taking minocycline hydrochloride extended-release tablets and call your healthcare provider right away if you get any of the following symptoms of liver problems:

  - loss of appetite
  - unexplained bleeding or bleeding more easily than normal
  - tiredness
  - diarrhea
  - confusion
  - yellowing of your skin or the whites of your eyes (jaundice)
  - sleepiness

- **Central nervous system effects.** See **"What should I avoid while taking**

minocycline hydrochloride extended-release tablets?" Central nervous system effects such as light-headedness, dizziness, and a spinning feeling (vertigo) may go away during your treatment with minocycline hydrochloride extended-release tablets or if treatment is stopped.

- **Increased pressure around the brain (idiopathic intracranial hypertension).** This condition may lead to vision changes and permanent vision loss. You are more likely to get intracranial hypertension if you are a female who can have children, are overweight, and have already had intracranial hypertension. Stop taking minocycline hydrochloride extended-release tablets and tell your healthcare provider right away if you have blurred vision, double vision, vision loss, or unusual headaches.
- **Immune system reactions including a lupus-like syndrome, hepatitis, and inflammation of blood or lymph vessels (vasculitis).** Using minocycline hydrochloride extended-release tablets for a long time to treat acne may cause immune system reactions. Stop taking minocycline hydrochloride extended-release tablets and tell your healthcare provider right away if you get a fever, rash, joint pain, or body weakness.
- **Sensitivity to sunlight (photosensitivity).** See **“What should I avoid while taking SOLODYN?”**
- **Discoloration (tissue hyperpigmentation).** Minocycline hydrochloride extended-release tablets may cause darkening of your nails, skin, eyes, teeth, gums, scars, and internal organs.

The most common side effects of minocycline hydrochloride extended-release tablets include:

- headache
- dizziness or spinning feeling
- tiredness
- itching

Your healthcare provider may do blood tests and check you for side effects during treatment with minocycline hydrochloride extended-release tablets and may lower your dose or stop treatment if you develop certain side effects.

These are not all of the possible side effects of minocycline hydrochloride extended-release tablets.

Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

You may also report side effects to Bausch Health US, LLC at 1-800-321-4576.

How should I store minocycline hydrochloride extended-release tablets?

- Store minocycline hydrochloride extended-release tablets at room temperature between 68°F to 77°F (20°C to 25°C).
- Keep the minocycline hydrochloride extended-release tablets container tightly closed.
- Keep minocycline hydrochloride extended-release tablets away from light, moisture, and excessive heat.

Keep minocycline hydrochloride extended-release tablets and all medicines out of the reach of children.

General information about the safe and effective use of minocycline hydrochloride extended-release tablets.

Medicines are sometimes prescribed for purposes other than those listed in the Patient Information leaflet. Do not use minocycline hydrochloride extended-release tablets for a condition for which it was not prescribed. Do not give minocycline hydrochloride extended-release tablets to other people, even if they have the same symptoms you have. It may harm them. You can ask your pharmacist or healthcare provider for information about minocycline hydrochloride extended-release tablets that is written for health professionals.

What are the ingredients in minocycline hydrochloride extended-release tablets?

Active ingredient: minocycline hydrochloride

Inactive ingredients: lactose monohydrate, hypromellose type 2910, hypromellose type 2208, colloidal silicon dioxide, magnesium stearate, titanium dioxide and triacetin.

The 45 mg tablets also contain iron oxide black.

The 65 mg tablets also contain FD&C blue #1/brilliant blue FCF aluminium lake, polyethylene glycol 3350, FD&C blue #2/indigo carmine aluminum lake and D&C yellow #10 aluminum lake.

The 55 mg tablets also contain macrogol, FD&C RED #40.

The 80 mg tablets also contain macrogol, FD&C blue #2, FD&C red #40, FD&C yellow #6.

The 90 mg tablets also contain iron oxide yellow and polyethylene glycol 3350.

The 105 mg tablets also D&C red #27, macrogol, FD&C blue #1.

The 115 mg tablets also contain D&C yellow #10 aluminum lake, FD&C blue #1/brilliant blue FCF aluminium lake and FD&C blue #2/indigo carmine aluminum lake.

The 135 mg tablets also contain polyethylene glycol 3350 and iron oxide red.

Manufactured by:
Alkem Laboratories Ltd.,
Mumbai - 400 013, INDIA.

Distributed by:
Ascend Laboratories, LLC
Bedminster, NJ 07921

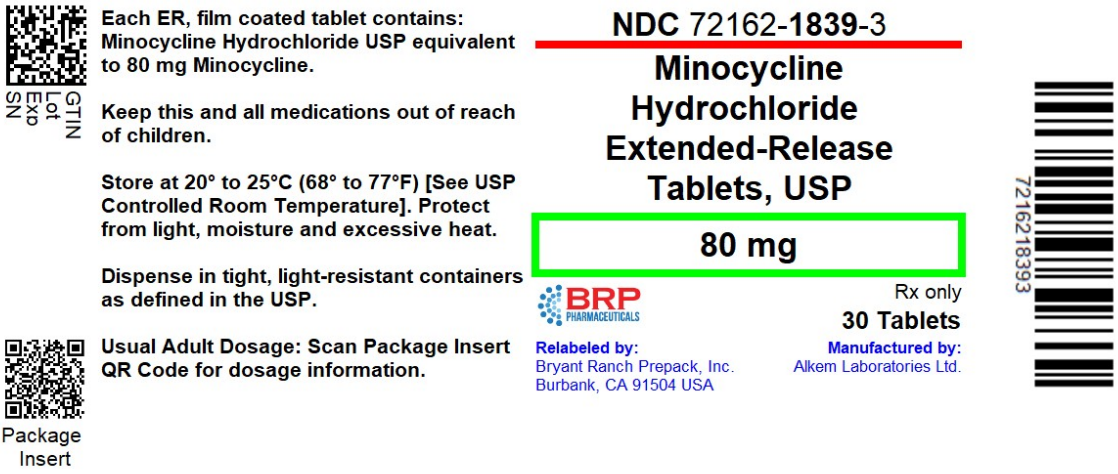
For more information, call 1-877-272-7901.

This Patient Information has been approved by the U.S. Food and Drug Administration.

Revised: October 2025

PT 3278-04

Minocycline HCL 80 mg ER tab#30



MINOCYCLINE HYDROCHLORIDE

minocycline hydrochloride tablet, film coated, extended release

Product Information			
Product Type	HUMAN PRESCRIPTION DRUG	**Item Code (Source)**	NDC:72162-1839(NDC:67877-437)
Route of Administration	ORAL		

Active Ingredient/Active Moiety		
Ingredient Name	**Basis of Strength**	**Strength**
MINOCYCLINE HYDROCHLORIDE (UNII: 0020414E5U) (MINOCYCLINE - UNII:FYY3R43WGO)	MINOCYCLINE	80 mg

Inactive Ingredients	
Ingredient Name	**Strength**
LACTOSE MONOHYDRATE (UNII: EWQ57Q8I5X)	
HYPROMELLOSE 2208 (4000 MPA.S) (UNII: 39J80LT57T)	
HYPROMELLOSE 2910 (50 MPA.S) (UNII: 1IVH67816N)	
SILICON DIOXIDE (UNII: ETJ7Z6XBU4)	
MAGNESIUM STEARATE (UNII: 70097M6I30)	
TITANIUM DIOXIDE (UNII: 15FIX9V2JP)	
TRIACETIN (UNII: XHX3C3X673)	
POLYETHYLENE GLYCOL 3350 (UNII: G2M7P15E5P)	
FD&C RED NO. 40 (UNII: WZB9127XOA)	
ALUMINUM OXIDE (UNII: LMI26O6933)	

FD&C BLUE NO. 2 (UNII: L06K8R7DQK)	
FD&C YELLOW NO. 6 (UNII: H77VEI93A8)	

Product Characteristics			
Color	GRAY (Greyish Brown)	**Score**	no score
Shape	CAPSULE	**Size**	13mm
Flavor		**Imprint Code**	80
Contains			

Packaging

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:72162-1839-3	30 in 1 BOTTLE; Type 0: Not a Combination Product	09/30/2016	

Marketing Information

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
ANDA	ANDA204453	09/30/2016	

Labeler - Bryant Ranch Prepack (171714327)

Registrant - Bryant Ranch Prepack (171714327)

Establishment

Name	Address	ID/FEI	Business Operations
Bryant Ranch Prepack		171714327	REPACK(72162-1839) , RELABEL(72162-1839)

Revised: 3/2026 Bryant Ranch Prepack