

What should I avoid while taking darifenacin hydrobromide extended-release tablets?

Darifenacin hydrobromide extended-release tablets can cause blurred vision or dizziness. Do not drive or operate heavy machinery until you know how darifenacin hydrobromide extended-release tablets affect you.

What are the possible side effects of darifenacin hydrobromide extended-release tablets?

Darifenacin hydrobromide extended-release tablets may cause serious side effects including:

- Serious allergic reaction. Stop taking darifenacin hydrobromide extended-release tablets and get medical help right away if you have:
 - hives, skin rash or swelling
 - severe itching
 - swelling of your face, mouth or tongue
 - trouble breathing

The most common side effects with darifenacin hydrobromide extended-release tablets are:

- constipation
- dry mouth
- headache
- heartburn
- nausea
- urinary tract infection
- blurred vision
- heat exhaustion or heat-stroke. This can happen when darifenacin hydrobromide extended-release tablets are used in hot environments. Symptoms of heat exhaustion may include:
 - decreased sweating
 - dizziness
 - tiredness
 - nausea
 - increase body temperature

Tell your doctor if you have any side effect that bothers you or that does not go away.

These are not all the possible side effects of darifenacin hydrobromide extended-release tablets. For more information, ask your doctor or pharmacist.

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

How do I store darifenacin hydrobromide extended-release tablets?

- Store darifenacin hydrobromide extended-release tablets at 20° to 25°C (68° to 77°F) [see USP Controlled Room Temperature].
- Keep darifenacin hydrobromide extended-release tablets out of the light.

Keep darifenacin hydrobromide extended-release tablets and all medicines out of the reach of children.

General information about darifenacin hydrobromide extended-release tablets.

Medicines are sometimes prescribed for purposes other than those listed in a Patient Information leaflet. Do not use darifenacin hydrobromide extended-release tablets for a condition for which it was not prescribed. Do not give darifenacin hydrobromide extended-release tablets to other people, even if they have the same symptoms you have. It may harm them.

This Patient Information leaflet summarizes the most important information about darifenacin hydrobromide extended-release tablets. If you would like more information, talk with your doctor. You can ask your pharmacist or doctor for information about darifenacin hydrobromide extended-release tablets that is written for health professionals.

To report SUSPECTED ADVERSE REACTIONS, contact Par Pharmaceutical at 1-800-828-9393 or FDA at 1-800-FDA-1088 or www.fda.gov/med-watch.

What are the ingredients in darifenacin hydrobromide extended-release tablets?

Active ingredient: darifenacin hydrobromide

Inactive ingredients: dibasic calcium phosphate anhydrous, hypromellose, lactose monohydrate, magnesium stearate, polyvinyl glycol, polyethylene glycol, talc, titanium dioxide. The 7.5 mg tablet also contains D&C yellow No. 10 aluminum lake and FD&C yellow No. 6/sunset yellow FCF aluminum lake.

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Manufactured by:
Par Pharmaceutical
Chestnut Ridge, NY 10977

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Table 3: Mean (SD) Steady-State Pharmacokinetic Parameters from Darifenacin Hydrobromide Extended-Release Tablets 7.5 mg and 15 mg (base) Based on Pooled Data by Predicted CYP2D6 Phenotype

	Darifenacin Hydrobromide Extended-Release Tablets 7.5 mg (base) (N = 68 EM, 5 PM)					Darifenacin Hydrobromide Extended-Release Tablets 15 mg (base) (N = 102 EM, 17 PM)				
	AUC ₂₄ (ng·h/mL)	C _{max} (ng/mL)	C _{avg} (ng/mL)	T _{max} (h)	t _{1/2} (h)	AUC ₂₄ (ng·h/mL)	C _{max} (ng/mL)	C _{avg} (ng/mL)	T _{max} (h)	t _{1/2} (h)
EM	29.24 (15.47)	2.01 (1.04)	1.22 (0.64)	6.49 (4.19)	12.43 (5.64)*	88.90 (67.87)	5.76 (4.24)	3.70 (2.83)	7.61 (5.06)	12.05 (12.37)*
PM	67.56 (13.13)	4.27 (0.98)	2.81 (0.55)	5.20 (1.79)	19.95 ^a -	157.71 (77.08)	9.99 (5.09)	6.58 (3.22)	6.71 (3.58)	7.40 ^a -

^aN=25; ^bN=8; ^cN=2; ^dN=1; AUC₂₄ = Area under the plasma concentration versus time curve for 24h;

C_{max} = Maximum observed plasma concentration; C_{avg} = Average plasma concentration at steady-state;

T_{max} = Time of occurrence of C_{max}; t_{1/2} = Terminal elimination half-life. Regarding EM and PM [see CLINICAL PHARMACLOGY, Pharmacokinetics, Variability in Metabolism (12.3)]

The mean oral bioavailability of darifenacin hydrobromide extended-release tablets in EMs at steady-state is estimated to be 15 percent and 19 percent for 7.5 mg and 15 mg (base) tablets, respectively.

Effect of Food

Following single dose administration of darifenacin hydrobromide extended-release tablets with food, the AUC of darifenacin was not affected, while the C_{max} was increased by 22 percent and T_{max} was shortened by 3.3 hours. There is no effect of food on multiple-dose pharmacokinetics from darifenacin hydrobromide extended-release tablets.

Distribution

Darifenacin is approximately 98 percent bound to plasma proteins (primarily to alpha-1-acid-glycoprotein). The steady-state volume of distribution (V_{ss}) is estimated to be 163 L.

Metabolism

Darifenacin is extensively metabolized by the liver following oral dosing.

Metabolism is mediated by cytochrome P450 enzymes CYP2D6 and CYP3A4. The three main metabolic routes are as follows:

- monohydroxylation in the dihydrobenzofuran ring;
- dihydrobenzofuran ring opening;
- N-dealkylation of the pyrrolidine nitrogen.

The initial products of the hydroxylation and N-dealkylation pathways are the major circulating metabolites but they are unlikely to contribute significantly to the overall clinical effect of darifenacin.

Variability in Metabolism

A subset of individuals (approximately 7 percent Caucasians and 2 percent African Americans) are poor metabolizers (PMs) of CYP2D6 metabolized drugs. Individuals with normal CYP2D6 activity are referred to as extensive metabolizers (EMs). The metabolism of darifenacin in PMs will be principally mediated via CYP3A4. The darifenacin ratios (PM versus EM) for C_{max} and AUC following darifenacin 15 mg (base) once daily at steady-state were 1.9 and 1.7, respectively.

Excretion

Following administration of an oral dose of ¹⁴C-darifenacin solution to healthy volunteers, approximately 60 percent of the radio-activity was recovered in the urine and 40 percent in the feces. Only a small percentage of the excreted dose was unchanged darifenacin (3 percent). Estimated darifenacin clearance is 40 L/h for EMs and 32 L/h for PMs. The elimination half-life of darifenacin following chronic dosing is approximately 13 to 19 hours.

Drug-Drug Interactions

Effects of Other Drugs on Darifenacin

Darifenacin metabolism is primarily mediated by the cytochrome P450 enzymes CYP2D6 and CYP3A4. Therefore, inducers of CYP3A4 or inhibitors of either of these enzymes may alter darifenacin pharmacokinetics [see **DRUG INTERACTIONS** (7)].

CYP3A4 Inhibitors: In a drug interaction study, when a 7.5 mg (base) once daily dose of darifenacin hydrobromide extended-release tablets was given to steady-state and coadministered with the potent CYP3A4 inhibitor ketoconazole 400 mg, mean darifenacin C_{max} increased to 11.2 ng/mL for EMs (n = 10) and 55.4 ng/mL for one PM subject (n = 1). Mean AUC increased to 143 and 939 ng·h/mL for EMs and for one PM subject, respectively. When a 15 mg (base) daily dose of darifenacin hydrobromide extended-release tablets was given with ketoconazole, mean darifenacin C_{max} increased to 67.6 ng/mL and 58.9 ng/mL for EMs (n = 3) and one PM subject (n = 1), respectively. Mean AUC increased to 1170 and 931 ng·h/mL for EMs and for one PM subject, respectively [see **DOSAGE AND ADMINISTRATION** (2) and **Drug Interactions** (7.1)].

The mean C_{max} and AUC of darifenacin following 30 mg once daily dosing at steady-state were 128 percent and 95 percent higher, respectively, in the presence of a moderate CYP3A4 inhibitor, erythromycin. Coadministration of itraconazole, a moderate CYP3A4 inhibitor and darifenacin 30 mg once daily at steady-state increased darifenacin C_{max} and AUC by 88 percent and 84 percent, respectively [see **Drug Interactions** (7.1)].

The mean C_{max} and AUC of darifenacin following 30 mg once daily at steady-state were 42 percent and 34 percent higher, respectively, in the presence of cimetidine, a mixed CYP P450 enzyme inhibitor.

CYP2D6 Inhibitors: Darifenacin exposure following 30 mg once daily at steady-state was 33 percent higher in the presence of the potent CYP2D6 inhibitor paroxetine 20 mg [see **Drug Interactions** (7.2)].

Effects of Darifenacin on Other Drugs

In Vitro Studies: Based on *in vitro* human microsomal studies, darifenacin hydrobromide extended-release tablets are not expected to inhibit CYP1A2 or CYP2C9 at clinically relevant concentrations.

In Vivo Studies: The potential for clinical doses of darifenacin hydrobromide extended-release tablets to act as inhibitors of CYP2D6 or CYP3A4 substrates was investigated in specific drug interaction studies.

CYP2D6 Substrates: The mean C_{max} and AUC of imipramine, a CYP2D6 substrate, were increased by 57 percent and 70 percent, respectively, in the presence of steady-state darifenacin 30 mg once daily. The mean C_{max} and AUC of desipramine, the active metabolite of imipramine, were increased by 260 percent [see **Drug Interactions** (7.3)].

CYP3A4 Substrates: Darifenacin (30 mg daily) coadministered with a single oral dose of midazolam 7.5 mg resulted in a 17 percent increase in midazolam exposure.

Combination Oral Contraceptives: Darifenacin (10 mg three times daily) had no effect on the pharmacokinetics of a combination oral contraceptive containing levonorgestrel (0.15 mg) and ethinyl estradiol (0.03 mg).

Warfarin: Darifenacin had no significant effect on prothrombin time when a single dose of warfarin 30 mg was coadministered with darifenacin (30 mg daily) at steady-state [see **Drug Interactions** (7.6)].

Digoxin: Darifenacin (30 mg daily) coadministered with digoxin (0.25 mg) at steady-state resulted in a 16 percent increase in digoxin exposure [see **Drug Interactions** (7.7)].

Pharmacokinetics in Special Populations

Age: A population pharmacokinetic analysis of patient data indicated a trend for clearance of darifenacin to decrease with age (6 percent per decade relative to a median age of 44). Following administration of darifenacin hydrobromide extended-release tablets 15 mg (base) once daily, darifenacin exposure at steady-state was approximately 12 percent to 19 percent higher in volunteers between 45 and 65 years of age compared to younger volunteers aged 18 to 44 years [see **Use in Specific Populations** (8.5)].

Pediatric: The pharmacokinetics of darifenacin hydrobromide extended-release tablets has not been studied in the pediatric population [see **Use in Specific Populations** (8.4)].

Gender: PK parameters were calculated for 22 male and 25 female healthy volunteers. Darifenacin C_{max} and AUC at steady-state were approximately 57 percent to 79 percent and 61 percent to 73 percent higher in females than in males, respectively [see **Use in Specific Populations** (8.8)].

Renal Impairment: A study of subjects with varying degrees of renal impairment (creatinine clearance between 10 and 136 mL/min) given darifenacin hydrobromide extended-release tablets 15 mg (base) once daily to steady-state demonstrated no clear relationship between renal function and darifenacin clearance [see **Use in Specific Populations** (8.7)].

Hepatic Impairment: Darifenacin hydrobromide extended-release tablets pharmacokinetics were investigated in subjects with mild (Child-Pugh A) or moderate (Child-Pugh B) impairment of hepatic function given darifenacin hydrobromide extended-release tablets 15 mg (base) once daily to steady-state. Mild hepatic impairment had no effect on the pharmacokinetics of darifenacin. However, protein binding of darifenacin was affected by moderate hepatic impairment. After adjusting for plasma protein binding, unbound darifenacin exposure was estimated to be 4.7-fold higher in subjects with moderate hepatic impairment than subjects with normal hepatic function. Subjects with severe hepatic impairment (Child-Pugh C) have not been studied [see **DOSAGE AND ADMINISTRATION** (2), **Warning and Precautions** (5.6) and **Use in Specific Population** (8.6)].

13 NONCLINICAL TOXICOLOGY

13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility

Carcinogenicity studies with darifenacin were conducted in mice and rats. No evidence of drug-related carcinogenicity was revealed in a 24-month study in mice at dietary doses up to 100 mg/kg/day or approximately 32 times the estimated free plasma AUC reached at the maximum recommended human dose (the AUC at the MRHD) of 15 mg and in a 24-month study in rats at doses up to 15 mg/kg/day or up to approximately 12 times the AUC at the MRHD in female rats and approximately eight times the AUC at the MRHD in male rats.

Darifenacin was not genotoxic in the bacterial mutation assay (Ames test), the Chinese hamster ovary assay, the human lymphocyte assay, or the *in vivo* mouse bone marrow cytogenetics assay. There was no evidence for effects on fertility in male or female rats treated at oral doses up to approximately 78 times (50 mg/kg/day) the AUC at the MRHD.

14 CLINICAL STUDIES

Darifenacin hydrobromide extended-release tablets were evaluated for the treatment of patients with overactive bladder with symptoms of urgency, urge urinary incontinence, and increased urinary frequency in three randomized, fixed-dose, placebo-controlled, multicenter, double-blind, 12-week studies (Studies 1, 2 and 3) and one randomized, double-blind, placebo-controlled, multicenter, dose-titration study (Study 4). For study eligibility in all four studies, patients with symptoms of overactive bladder for at least six months were required to demonstrate at least eight micturitions and at least one episode of urinary urgency per day, and at least five episodes of urge urinary incontinence per week. The majority of patients were white (94 percent) and female (84 percent), with a mean age of 58 years, range 19 to 93 years. Thirty-three percent of patients were ≥65 years of age. These characteristics were well balanced across treatment groups. The study population was inclusive of both naive patients who had not received prior pharmacotherapy for overactive bladder (60 percent) and those who had (40 percent).

Table 4 shows the efficacy data collected from 7- or 14-day voiding diaries in the three fixed-dose placebo-controlled studies of 1,059 patients treated with placebo, 7.5 mg or 15 mg (base) once daily darifenacin hydrobromide extended-release tablets for 12 weeks. A significant decrease in the primary endpoint, change from baseline in average weekly urge urinary incontinence episodes was observed in all three studies. Data is also shown for two secondary endpoints, change from baseline in the average number of micturitions per day (urinary frequency) and change from baseline in the average volume voided per micturition.

Table 4: Difference Between Darifenacin Hydrobromide Extended-Release Tablets (7.5 mg, 15 mg (base)) and Placebo for the Week 12 Change from Baseline (Studies 1, 2 and 3)

	Study 1 Darifenacin Hydrobromide Extended-Release Tablets 7.5 mg (base)			Study 2 Darifenacin Hydrobromide Extended-Release Tablets 7.5 mg (base)			Study 3 Darifenacin Hydrobromide Extended-Release Tablets 15 mg (base)		
	Darifenacin Hydrobromide Extended-Release Tablets	Placebo	Median Change from Baseline	Darifenacin Hydrobromide Extended-Release Tablets	Placebo	Median Change from Baseline	Darifenacin Hydrobromide Extended-Release Tablets	Placebo	Median Change from Baseline
No. of Patients Entered	229	115	164	108	107	109	112	115	
Incontinence Episodes per Week									
Median Baseline	16.3	17.0	16.6	14.0	17.3	16.1	16.2	15.5	
Median Change from Baseline	-9.0	-10.4	-7.6	-8.1	-10.4	-5.9	-11.4	-9.0	
Median Difference to Placebo	-1.5*	-2.1*	-	-2.8*	-4.3*	-	-2.4*	-	
Micturition per Day									
Median Baseline	10.1	10.1	10.1	10.3	11.0	10.1	10.5	10.4	
Median Change from Baseline	-1.6	-1.7	-0.8	-1.7	-1.9	-1.1	-1.9	-1.2	
Median Difference to Placebo	-0.8*	-0.9*	-	-0.5	-0.7*	-	-0.5	-	
Volume of Urine Passed per Void (mL)									
Median Baseline	160.2	151.8	162.4	161.7	157.3	162.2	155.0	147.1	
Median Change from Baseline	14.9	30.9	7.6	16.8	23.6	7.1	26.7	4.6	
Median Difference to Placebo	9.1*	20.7*	-	9.2	16.6*	-	20.1*	-	

*Indicates statistically significant difference versus placebo (p<0.05, Wilcoxon rank-sum test)

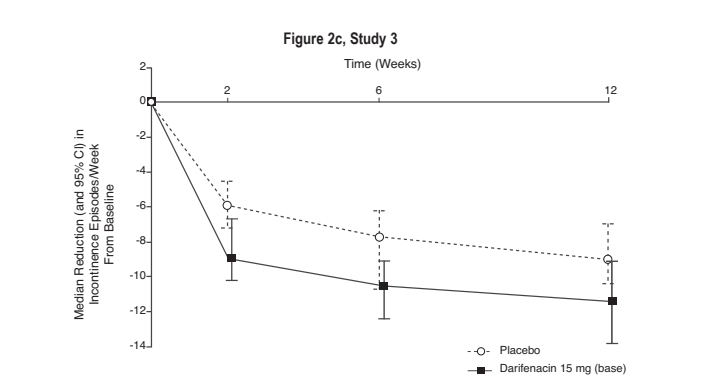
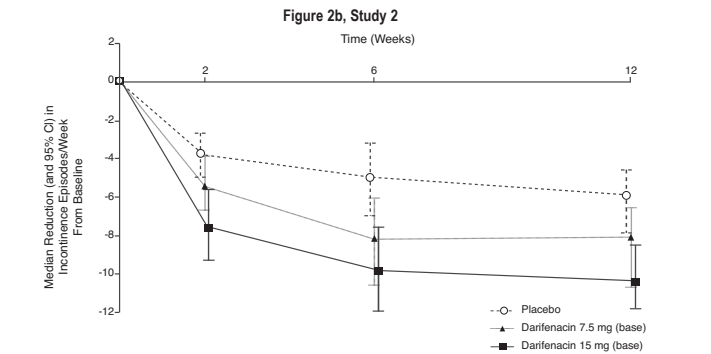
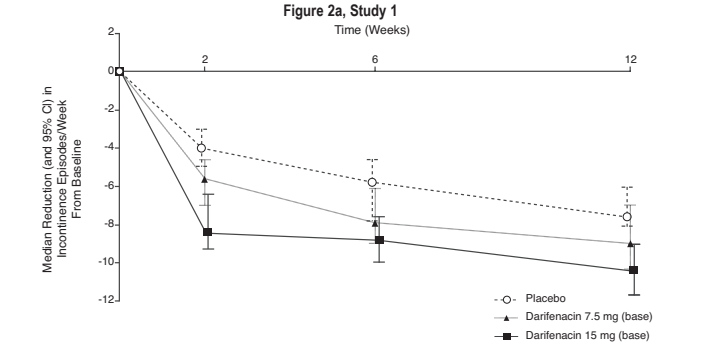
Table 5 shows the efficacy data from the dose-titration study in 395 patients who initially received 7.5 mg (base) darifenacin hydrobromide extended-release tablets or placebo daily with the option to increase to 15 mg (base) darifenacin hydrobromide extended-release tablets or placebo daily after two weeks.

	Darifenacin Hydrobromide Extended-Release Tablets 7.5 mg / 15 mg (base)		Placebo
	No. of Patients Treated	268	
Urge Incontinence Episodes per Week			
Median Baseline	16.0	16.0	14.0
Median Change from Baseline	-8.2	-8.2	-6.0
Median Difference to Placebo	-1.4*	-	-
Micturitions per Day			
Median Baseline	9.9	9.9	10.4
Median Change from Baseline	-1.9	-1.9	-1.0
Median Difference to Placebo	-0.8*	-	-
Volume of Urine Passed per Void (mL)			
Median Baseline	173.7	173.7	177.2
Median Change from Baseline	18.8	18.8	6.6
Median Difference to Placebo	13.3*	-	-

* Indicates statistically significant difference versus placebo (p<0.05, Wilcoxon rank-sum test)

As seen in **Figures 2 a, b and c**, reductions in the number of urge incontinence episodes per week were observed within the first two weeks in patients treated with darifenacin hydrobromide extended-release tablets 7.5 mg and 15 mg (base) once daily compared to placebo. Further, these effects were sustained throughout the 12-week treatment period.

Figures 2a, 2b, 2c. Median Change from Baseline at Weeks 2, 6, 12 for Number of Incontinence Episodes per Week (Studies 1, 2 and 3)



16 HOW SUPPLIED/STORAGE AND HANDLING

Darifenacin Hydrobromide Extended-Release Tablets, 7.5 mg (base) are yellow round shaped film-coated tablets engraved with "C170" on one side and plain on the other side. Bottle of 30.....NDC 10370-170-11

Bottle of 90.....NDC 10370-170-09

Darifenacin Hydrobromide Extended-Release Tablets 15 mg (base) are white to off-white round shaped film-coated tablets engraved with "C171" on one side and plain on the other side. Bottle of 30.....NDC 10370-171-11

Bottle of 90.....NDC 10370-171-09

Storage

Store at 20° to 25°C (68° to 77°F) [see USP Controlled Room Temperature]. Protect from light.

Keep this and all drugs out of the reach of children.

17 PATIENT COUNSELING INFORMATION

"See FDA-approved patient labeling (Patient Information)"

Patients should be informed that anticholinergic agents, such as darifenacin hydrobromide extended-release tablets, may produce clinically significant adverse effects related to anticholinergic pharmacological activity including constipation, urinary retention and blurred vision. Heat prostration (due to decreased sweating) can occur when anticholinergics such as darifenacin hydrobromide extended-release tablets are used in a hot environment. Because anticholinergics, such as darifenacin hydrobromide extended-release tablets, may produce dizziness or blurred vision, patients should be advised to exercise caution in decisions to engage in potentially dangerous activities until the drug's effects have been determined. Patients should read the patient information leaflet before starting therapy with darifenacin hydrobromide extended-release tablets.

Patients should be informed that darifenacin may produce clinically significant angioedema that may result in airway obstruction. Patients should be advised to promptly discontinue darifenacin therapy and seek immediate medical attention if they experience edema of the tongue or laryngopharynx, or difficulty breathing.

Darifenacin hydrobromide extended-release tablets should be taken