

Recall of Losartan by AvKARE

Effective Date: April 23, 2019

On April 23, 2019, AvKARE announced an expansion to the voluntary recall of some lots of Losartan tablets because of the presence of trace amounts of an unexpected impurity, N-Methylnitrosobutyric acid (NMBA) a possible process impurity or contaminant in an active pharmaceutical ingredient, manufactured by Hetero Labs. NMBA is a probable human carcinogen. This is an expansion to the AvKARE recall that was announced on March 4, 2019.

It is possible that your pharmacy already received a letter regarding an angiotensin receptor blocker (ARB) recall. The FDA continues to monitor this situation and investigates additional ARB products which may be impacted by the impurity issue. We continue to notify any potentially impacted members as the FDA announces the recall of additional ARB products.

OptumRx notifies members who may be affected by this recall. These members were advised to contact their pharmacy for replacement information, provided information to help them identify if their medication is being recalled, advised to discuss potential alternative therapies with their healthcare provider if they are not able to obtain a replacement, and advised to continue their current therapy until they obtain a replacement or alternative. In the future, these members may inquire about the Losartan-Containing prescription(s) your pharmacy dispensed.

If you have any questions, call AvKARE at **(931) 292-6222** (7:30 AM – 5:00 PM CST, Monday through Friday) for more information for more information.

Losartan Tablets Recalled by AvKARE

Product Description	NDC #	Lot # (Expiration Date)
Losartan 25 mg	50268-516-15	19554 (4/2019)
Losartan 50 mg	50268-517-15	20121 (6/2019)

Due to the large scale and ongoing nature of ARB recalls, certain ARB products, such as valsartan, may be in limited supply for the near-term. Please refer to the table below for potential alternative ARB therapies. All ARBs are available generically with the exception of Edarbi.

Table 1. FDA-approved indications for single-entity Angiotensin Receptor Blockers (ARBs)

Indication	Atacand (Candesartan)	Avapro (Irbesartan)	Benicar (Olmesartan)	Cozaar (Losartan)	Diovan (Valsartan)	Edarbi (Azilsartan)	Eprosartan	Micardis (Telmisartan)
Hypertension in adults	✓	✓	✓	✓	✓	✓	✓	✓
Hypertension in children ages 1 to < 17 years	✓							
Hypertension in children ages 6 to 16 years			✓	✓	✓			
Treatment of diabetic nephropathy in hypertensive patients with type 2 DM, an elevated serum creatinine, and proteinuria		✓		✓				
Heart failure (NYHA Class II to IV) in adults	✓				✓			

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Indication	Atacand (Candesartan)	Avapro (Irbesartan)	Benicar (Olmesartan)	Cozaar (Losartan)	Diovan (Valsartan)	Edarbi (Azilsartan)	Eprosartan	Micardis (Telmisartan)
Reduction in the risk of stroke in patients with hypertension and LV hypertrophy				✓				
Post-MI: Reduction of cardiovascular mortality in clinically stable patients with LV failure or LV dysfunction					✓			
Cardiovascular risk reduction in patients 55 years of age or older at high risk of developing major cardiovascular events who are unable to take ACE-Is								✓

Abbreviations: ACE-I = Angiotensin Converting Enzyme Inhibitor; LV = Left Ventricular; MI = Myocardial Infarction; NYHA = New York Heart Association

Table 2. Equivalent ARB daily dosing for Losartan in adults

Generic Name (Brand Name)	Losartan 25 mg*	Losartan 50 mg*	Losartan 100 mg
Azilsartan [†] (Edarbi)	40 mg	40 mg	40 mg
Candesartan [†] (Atacand)	4 to 8 mg	8 to 16 mg	8 to 16 mg
Eprosartan (Tevetan)	400 mg	600 mg	800 mg
Irbesartan (Avapro)	75 mg	150 mg	300 mg
Olmesartan (Benicar)	10 mg	20 mg	20 to 40 mg
Telmisartan (Micardis)	20 mg	40 mg	40 to 80 mg
Valsartan [†] (Diovan)	40 mg	80 mg	160 mg

Note: Dose equivalencies are approximate. Comparable dose based on therapeutic interchange studies, comparative clinical trials, and manufacturers' recommended dosing for hypertension. Doses are to provide general guidance, but not to provide direction for prescribing. Individual patient responses may vary. Equivalent doses may also vary according to indication and based on specific patient factors. Please refer to the prescribing information for further details.

* Initial daily doses recommended in heart failure include: Candesartan 4 to 8 mg daily (max: 32 mg daily), Losartan 25 to 50 mg daily (max: 50 to 150 mg daily), and Valsartan 20 to 40 mg twice daily (max: 160 mg twice daily).

† Available as brand only.

References:

1. AvKARE Urgent Drug Recall Notice. April 23, 2019.
2. FDA Safety Alert. FDA updates on angiotensin II receptor blocker (ARB) recalls including valsartan, losartan and irbesartan. FDA website. <https://www.fda.gov/Drugs/DrugSafety/ucm613916.htm>. Accessed April 25, 2019.
3. Micromedex Solutions Web site. <http://www.micromedexsolutions.com/home/dispatch>. Accessed April 25, 2019.
4. Pharmacists Letter. Angiotensin Receptor Blocker (ARB) Antihypertensive Dose Comparison. Update September 2018. Available at: www.pharmacistsletter.com. Accessed April 25, 2019.
5. VA/DoD drug class review. Angiotensin II receptor antagonists (AIIARs). Update February 2010. <https://www.pbm.va.gov/clinicalguidance/drugclassreviews.asp>. Accessed April 25, 2019.
6. Yancy CW, Jessup M, Bozkurt B, et al. 2017 ACC/AHA/HFSA focused update of the 2013 ACCF/AHA guideline for the management of heart failure: a report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines and the Heart Failure Society of America. *J Card Fail.* 2017;23(8):628-651. doi: 10.1016/j.jacc.2017.04.025.

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