



Therapeutic Class ReviewSM

Cardiovascular – Aliskiren (Tekturna[®])

July 2007

New Product for Review:

aliskiren (Tekturna[®]) [Novartis]

Dossier Provided by Manufacturer: Yes

Dossier Evaluation: 2

1- Dossier missing significant clinical trial(s).

2- Mfg provided all relevant trials; Missing pharmacoeconomic model.

3- Mfg provided all relevant trials and information.

Executive Summary

- High blood pressure is associated with an increased risk of cardiovascular and cerebrovascular events.
 - The higher the blood pressure, the greater the chance of heart attack, heart failure, stroke, and kidney disease.
 - The risk is consistent and independent of other risk factors.
- The ultimate goal of antihypertensive therapy is to reduce cardiovascular and renal morbidity and mortality.
- National and International Guidelines recommend a diuretic as initial treatment for hypertension for the majority of patients.
- Most patients will require two or more agents to achieve optimal control of their blood pressure.
- Aliskiren (Tekturna), like angiotensin converting enzyme inhibitors (ACEIs) and angiotensin receptor blockers (ARBs), lowers blood pressure via its action on the renin-angiotensin-aldosterone system (RAAS).
- The manufacturer promotes aliskiren (Tekturna) as having potential advantages over ACEIs and ARBs due to its unique (first in class), direct inhibition of renin; however, there is no evidence that supports any clinical significance of this in clinical practice.
- There are many preferred/formulary options from many different classes available for treatment of hypertension. These options include diuretics, beta-blockers, calcium channel blockers (CCBs), alpha-blockers, aldosterone antagonists, ACEIs, ARBs, and direct vasodilators.
- Generic options (including diuretics, CCBs, ACEIs, and beta-blockers) offer the best value for treatment of hypertension because they have proven benefit in reducing cardiovascular death, stroke, and/or progression of renal failure.

Evidence

- The efficacy and safety of aliskiren (Tekturna) are based on trials of short duration (approximately 8 weeks in length) studying diastolic blood pressure (DBP) lowering as a primary endpoint.
- There is no evidence that aliskiren (Tekturna) is better at lowering blood pressure than:
 - Optimal doses of other antihypertensive agents.
 - ACEIs or ARBs.
- There is no direct evidence that aliskiren (Tekturna) decreases the risk of cardiovascular morbidity and mortality, stroke, or progression of renal failure.
- There is no evidence that combining aliskiren (Tekturna) with an ACEI or ARB is superior to maximizing the dose of the ACEI or ARB.
- Aliskiren (Tekturna) has not demonstrated improved safety or tolerability over ACEIs or ARBs.

Decision

Aliskiren (Tekturna) is non-preferred/non-formulary because:

- There are many preferred/formulary antihypertensive options available (many of them generics) that provide an excellent value to our members.
- There is no evidence of additional benefit over current preferred/formulary options.

Products

Drug Products	FDA approval ^a	Patent Expiration(s) ^b	FDA approved indications	Usual Dose/Route	Potential Off-label Uses ^c
Aliskiren (Tekturna®) [2]	3/2007	3/2012	• Hypertension	150 mg to 300 mg once daily	
benazepril [3] (generics)	6/1991	expired	• Hypertension	20 to 40 mg once daily Max: 80 mg qd	Angina; congestive heart failure; Diabetic nephropathy; non-diabetic kidney dx; myocardial infarction
enalapril [4] (generics)	12/1985	expired	• Hypertension • Heart Failure • Asymptomatic left ventricular dysfunction	10 mg to 40 mg divided once or twice per day (hypertension)	Diabetic nephro-pathy; non-diabetic kidney dx; malignant hypertension; migraine px; Raynaud's; athero-sclerosis
fosinopril [5] (generics)	5/1991	expired	• Hypertension • Heart Failure	20 mg to 40 mg once daily Max: 80 mg qd (hypertension)	Diabetic nephro-pathy; non-diabetic kidney dx; myocardial infarction
lisinopril [6] (generics)	12/1987	expired	• Hypertension • Heart Failure • Acute myocardial infarction	20 mg to 40 mg once daily	Diabetic nephro-pathy; non-diabetic kidney dx; malignant hypertension; migraine px
olmesartan (Benicar®) [7]	4/2002	4/2016 11/2021	• Hypertension	20 mg to 40 mg once daily	
telmisartan (Micardis®) [8]	11/1998	1/2014 1/2020	• Hypertension	40 mg to 80 mg once daily	Congestive heart failure; left ventricular hypertrophy

^a Date applies to approval date for the original brand name medication where there are now generics available.

^b Based on patents listed in Orange Book as of 05/14/07.

^c As listed in © 1974 - 2007 Thomson MICROMEDEX database or as referenced.

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