

## Therapeutic Considerations for Veteran Patients on Felodipine

Due to a recent shortage, the availability of felodipine may become unreliable, potentially interrupting patient care. Until an adequate supply of felodipine can be guaranteed, it would be prudent to consider alternative therapies rather than starting new patients on this medication. For those veteran patients currently prescribed felodipine who may be affected by the shortage, the VA Pharmacy Benefits Management and Medical Advisory Panel (PBM-MAP) have provided several considerations depending on the following indications for use:

### Hypertension<sup>1-3</sup>

- **Consider thiazide diuretic if not currently part of regimen (and patient is without contraindications)**
- Consider alternative antihypertensive medications based on concomitant diseases
- If a long-acting dihydropyridine (DHP) calcium channel blocker (CCB) is considered the most appropriate treatment for the patient, consider change to amlodipine OR nifedipine CC/XL:
  - Felodipine 2.5mg → Amlodipine 2.5mg
  - Felodipine 5mg → Amlodipine 5mg OR Nifedipine CC/XL 30mg
  - Felodipine 10mg → Amlodipine 10mg OR Nifedipine CC/XL 60mg (or lower doses if more appropriate per clinical judgment)

### Angina<sup>4,5</sup>

- **Consider beta-blocker if not currently part of regimen (and patient is without contraindications)**
  - Consider a CCB when a beta-blocker alone or in combination with a long-acting nitrate is ineffective or contraindicated. Selection of a non DHP CCB (e.g., diltiazem, verapamil) vs. a long-acting DHP in patients not on a beta-blocker may depend on patient specific considerations. If a CCB is being considered in addition to therapy with a beta-blocker, the long-acting DHP CCBs are preferred due to the potential for bradycardia or atrioventricular block with a non DHP CCB in combination with a beta-blocker.
  - If a long-acting DHP is considered the most appropriate treatment for the patient, consider change to amlodipine or nifedipine CC/XL
- Increased frequency, duration, and or severity of angina and/or acute myocardial infarction have rarely occurred when starting or increasing the dose of a calcium channel blocker.*

### Chronic Heart Failure<sup>6,7</sup>

- To treat uncontrolled hypertension and/or angina in a patient already receiving optimal treatment for chronic HF (e.g., diuretic, ACEI, beta-blocker; with ARB, hydralazine/nitrate, spironolactone as indicated), consider change to amlodipine:
  - Felodipine 2.5 or 5mg → Amlodipine 2.5 or 5mg
  - Felodipine 10mg → Amlodipine 10mg (or 5mg if more appropriate per clinical judgment)

For additional discussion, refer to PBM-MAP Clinical Guidance for the Use of Long-Acting Dihydropyridine Calcium Channel Blockers at [www.pbm.va.gov](http://www.pbm.va.gov) or <http://vaww.pbm.va.gov>

DRUG <sup>a</sup>	USUAL DOSE	PRICE/MONTH <sup>b</sup>
<b>THIAZIDE DIURETICS</b>		
Hydrochlorothiazide	12.5-50 mg once daily	\$0.13-\$0.35
Chlorthalidone	12.5-25 mg once daily	\$0.45-\$1.06
HCTZ/Triamterene	25/37.5-50mg/75mg once daily	\$0.26-\$0.50
<b>ACE INHIBITORS</b>		
Benazepril	5–80mg/day (divided once or twice daily)	\$1.41-\$3.50
Enalapril	2.5–20mg/day (divided once or twice daily)	\$0.56-\$0.90
Fosinopril	10–40mg once daily	\$1.14-\$2.97
Lisinopril	2.5–40mg once daily	\$0.70-\$4.85
<b>BETA BLOCKERS</b>		
Atenolol	25-100mg once daily (angina: up to 200mg once daily)	\$0.26-\$0.68
Metoprolol	IR: 50-300 mg/day (divided once or twice daily)	\$0.43-\$2.37
<b>CALCIUM CHANNEL BLOCKERS:</b>		
Diltiazem IR	90-360mg/day (divided three to four times daily)	\$2.68-\$10.02
Diltiazem SR	120-480mg/day	\$4.62-\$15.64
Verapamil IR	120-360mg/day (divided two to three times daily)	\$30.74-\$61.34
Verapamil SR	120-480mg/day (divided once or twice daily)	\$2.27-\$4.55
<i>Long-acting Dihydropyridines</i>		
Felodipine	2.5-10 mg once daily	\$14.10
Nifedipine CC/XL	30-120mg once daily	\$6.00-\$21.00
Amlodipine	2.5-10 mg once daily	\$9.00-\$11.70
<b>NITRATES</b>		
Isosorbide dinitrate IR	10-240mg/day (divided two to three times daily)	\$0.85-\$77.71
Isosorbide mononitrate ER	30-240mg once daily	\$1.10-\$4.31
Nitroglycerin patch	0.2-0.8mg/hr once daily (remove at ~12hrs)	\$8.15-\$16.30

<sup>a</sup> Selected agents used in the treatment of HTN, angina, and/or systolic HF; refer to VA National Formulary at [www.pbm.va.gov](http://www.pbm.va.gov) or <http://vaww.pbm.va.gov> for complete list

<sup>b</sup> Price estimate based on current Federal Supply Schedule or VA Contract Price; check for most current prices and product availability

<sup>c</sup> The long-acting formulations of the CCBs are recommended for treatment of patients with HTN

#### References (abbreviated)

1. The Antihypertensive and Lipid-Lowering Treatment to Prevent Heart Attack Trial (ALLHAT). JAMA 2002;288:2981-97.
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3. Diagnosis and Management of Hypertension in the Primary Care Setting. Washington, DC: VA/DoD Evidence-Based Clinical Practice Guideline Working Group, Veterans Health Administration, Department of Veterans Affairs, and Health Affairs, Department of Defense, November 1999. Office of Quality and Performance publication 10Q-CPG/HTN-99. (Update 2004). Office of Quality and Performance publication 10Q-CPG/HTN-04. Available at [www.oqp.med.va.gov](http://www.oqp.med.va.gov).
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5. Management of Ischemic Heart Disease. Washington, DC: VA/DoD Clinical Practice Guideline Working Group, Veterans Health Administration, Department of Veterans Affairs and Health Affairs, Department of Defense, October 2001. Update November 2003. Office of Quality and Performance publication 10Q-CPG/IHD-03. Available at [www.oqp.med.va.gov](http://www.oqp.med.va.gov).
6. Hunt SA, Abraham WT, Chin MH, et al. ACC/AHA 2005 guideline update for the diagnosis and management of chronic heart failure in the adult: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Writing Committee to Update the 2001 Guidelines for the Evaluation and Management of Heart Failure). American College of Cardiology Web site. Available at: <http://www.acc.org/clinical/guidelines/heartfailure/index.pdf>.
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