Therapeutic Interchange Guidance for Veteran Patients with Chronic Heart Failure on Carvedilol

VHA Pharmacy Benefits Management Strategic Health Care Group and the Medical Advisory Panel

According to the manufacturer, the availability of carvedilol may become unreliable for a period of up to eight weeks, potentially interrupting patient care. Carvedilol is available on the VA National Formulary (VANF), restricted to patients with a history of symptomatic chronic heart failure (HF). The following therapeutic interchange guidance has been developed by the VHA Pharmacy Benefits Management and Medical Advisory Panel (PBM-MAP) and clinical cardiology experts for those veteran patients currently prescribed carvedilol for chronic HF who may be affected by the shortage.

Chronic Heart Failure

- > Until an adequate supply of carvedilol can be guaranteed, it would be prudent to consider alternative therapies rather than starting new patients on this medication.
- > For patients with HF who are currently considered unstable, it is recommended that a change from carvedilol not be made. The manufacturer will attempt to provide carvedilol for patients where it has been determined that they should not be switched based on their current health status.
- In patients receiving carvedilol for the management of chronic HF and who are considered stable, the following dosage conversion to metoprolol XLa may be considered (note: recommendations are not based on head-to-head comparison trials; dosage conversions are derived from the initial, mean, and target doses reported in long-term, randomized, placebo-controlled morbidity and mortality outcome trials¹⁻⁴ and from national clinical practice guideline recommendations^{5,6}). The following may be modified based on clinical judgment and upward titration may be necessary:

Carvedilol 3.25 mg twice daily → Metoprolol XL 12.5 mg (NYHA class III to IV) to 25 mg once daily (NYHA class II)

Carvedilol 6.25 mg twice daily → Metoprolol XL 25 to 50 mg once daily

Carvedilol 12.5 mg twice daily → Metoprolol XL 50 to 100 mg once daily

Carvedilol 25 mg twice daily \rightarrow Metoprolol XL 100 mg to 200 mg once daily Carvedilol 50 mg twice daily* \rightarrow Metoprolol XL 200 mg once daily

*in patients weighing > 85 kg

- > Other beta-adrenergic blockers that are listed on the VANF that have been studied in patients with HF include atenolol and metoprolol IR8; however, data as to their long-term clinical outcome benefit and their optimal dose have not been determined.^{5,9} Bisoprolol is also available as a nonformulary agent and has been shown to reduce morbidity and mortality in a long-term, randomized, placebo-controlled morbidity and mortality outcome trial in patients with HF.¹
- > Recommendations for follow-up monitoring should be discussed with local cardiology experts.

For additional discussion, refer to Recommendations for the Use of Beta-Adrenergic Blockers in VA Patients with Chronic Heart Failure with Left Ventricular Systolic Dysfunction, available at http://www.pbm.va.gov/criteria/bblockerscriteria.pdf

References (abbreviated)

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- ⁷ Sturm B, Pacher R, Strametz-Juranek J, et al. Effect of beta1 blockade with atenolol on progression of heart failure in patients pretreated with high-dose enalapril. Eur J Heart Fail 2000:2:407-12.
- ⁸ Waagstein F, Bristow MR, Swedberg K, et al for the Metoprolol in Dilated Cardiomyopathy (MDC) Trial Study Group. Beneficial effects of metoprolol in idiopathic dilated cardiomyopathy. Lancet1993;342:1441-6.
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Metoprolol XL (METOPROLOL SUCCINATE) is available as 25 mg, 50 mg, 100 mg, and 200 mg scored, film-coated extended- release tablets