Clinical Policy: Ventriculectomy and Cardiomyoplasty
Reference Number: CP.MP.56
Last Review Date: 02/20

See Important Reminder at the end of this policy for important regulatory and legal information.

Description
Guidelines to determine medical necessity for ventriculectomy and cardiomyoplasty procedures as a treatment for severe chronic heart failure.

Policy/Criteria
It is the policy of health plans affiliated with Centene Corporation® that ventriculectomy (Batista procedure) and cardiomyoplasty procedures are considered experimental and/or investigational and are therefore not medically necessary.

Background
Heart failure is the final common path of myocardial dysfunction in most types of cardiac disease. Treatment options for heart failure include both medical and surgical therapy and surgical treatment, including ventricular assist devices (VADs), coronary revascularization, valve repair or replacement, total artificial heart, and heart transplantation. Heart transplantation has become the standard treatment for eligible patients with severe, irreversible biventricular failure unresponsive to medical or surgical treatment. Several surgical approaches have been explored as alternative treatments for patients with end-stage heart failure.

Surgical options to reduce the size of the enlarged left ventricle and improve cardiac function include partial left ventriculectomy, also known as the Batista procedure. Partial left ventriculectomy involves removing an elliptical section of the ventricle to improve cardiac output in patients who have severe chronic heart failure. Multiple studies have found minor improvements in measures of heart function and clinical status in the short term, with high mortality rates, high recurrences of symptomatic heart failure, and fatal arrhythmias (Stolf et al., 1998; Startling et al., 2000; Franco-Cereceda et al., 2001). As such, this procedure has fallen out of use (Fang, 2015).

Dynamic cardiomyoplasty is a surgical procedure in which a latissimus dorsi muscle flap is transposed into the chest and wrapped around the ventricles of the failing heart. This skeletal muscle flap is then electrically stimulated to contract in synchrony with ventricular systole. Over time, pacing of the skeletal muscle may produce morphologic, molecular and functional changes in the skeletal muscle, including notable reduction in muscle fatigue with repeated stimulation. Cardiomyoplasty has been found to be of some benefit to stage III heart failure patients; however, these patients could be well-managed with other interventions with less risk. Additionally, stage IV patients who have fewer effective interventions available had unacceptably high post-operative mortality risk (Leier, 1996) after cardiomyoplasty. Due to these considerations, this operation is very rarely used (Fang, 2015).

Coding Implications
**CLINICAL POLICY**

**Ventriculectomy and Cardiomyoplasty**

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<thead>
<tr>
<th>CPT® Codes</th>
<th>Description</th>
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<tr>
<td>33426</td>
<td>Valvuloplasty, mitral valve, with cardiopulmonary bypass; with prosthetic ring</td>
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<tr>
<td>33542</td>
<td>Myocardial resection (e.g., ventricular aneurysmectomy)</td>
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<td>33548</td>
<td>Surgical ventricular restoration procedure, includes prosthetic patch, when performed (e.g., ventricular remodeling, SVR, SAVER, Dor procedures)</td>
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## Reviews, Revisions, and Approvals

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<tr>
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<td>05/13</td>
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<td>References reviewed and updated</td>
<td>04/14</td>
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<td>References reviewed and updated. Specialist reviewed.</td>
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<td>CPT codes added: 33426, 33542, 33548.</td>
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## References

Ventriculectomy and Cardiomyoplasty


Important Reminder

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. The Health Plan makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved. “Health Plan” means a health plan that has adopted this clinical policy and that is operated or administered, in whole or in part, by Centene Management Company, LLC, or any of such health plan’s affiliates, as applicable.

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**Note: For Medicare members,** to ensure consistency with the Medicare National Coverage Determinations (NCD) and Local Coverage Determinations (LCD), all applicable NCDs and LCDs should be reviewed prior to applying the criteria set forth in this clinical policy. Refer to the CMS website at [http://www.cms.gov](http://www.cms.gov) for additional information.

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