MASSACHUSETTS

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Medical Policy

Pneumatic Compression Pumps for Treatment of Lymphedema and Venous Ulcers

Table of Contents

Policy Number: 354

BCBSA Reference Number: 1.01.18
NCD/LCD: National Coverage Determination (NCD) for Pneumatic Compression Devices (280.6)

Related Policies

- Bioimpedance Devices for the Detection of Lymphedema, #261
- Noncontact Ultrasound Treatment for Wounds, #657

Policy

Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity

Single compartment or multichamber *nonprogrammable* lymphedema pumps applied to the limb may be considered **MEDICALLY NECESSARY** for the treatment of lymphedema that has failed to respond to conservative measures, such as elevation of the limb and use of compression garments.

Single compartment or multichamber *programmable* lymphedema pumps applied to the limb may be considered **MEDICALLY NECESSARY** for the treatment of lymphedema when:

1. The individual is otherwise eligible for nonprogrammable pumps; and
2. There is documentation that the individual has unique characteristics that prevent satisfactory pneumatic compression with single-compartment or multichamber nonprogrammable lymphedema pumps (e.g., significant scarring).

Single compartment or multichamber lymphedema pumps applied to the limb are considered **INVESTIGATIONAL** in all situations other than those specified above in the first two policy statements.

The use of lymphedema pumps to treat the trunk or chest in patients with lymphedema limited to the upper and/or lower limbs is **INVESTIGATIONAL**.

The use of pneumatic compression pumps to treat venous ulcers is **INVESTIGATIONAL**.

Medicare HMO Blue[SM] and Medicare PPO Blue[SM] Members

Medical necessity criteria and coding guidance can be found through the link(s) below.

National Coverage Determinations (NCDs)

National Coverage Determination (NCD) for Pneumatic Compression Devices (280.6)

Note: To review the specific NCD, please remember to click "accept" on the CMS licensing agreement at the bottom of the CMS webpage.

Prior Authorization Information

Inpatient

- For services described in this policy, precertification/preauthorization **IS REQUIRED** for all products if the procedure is performed **inpatient**.

Outpatient

- For services described in this policy, see below for products where prior authorization **might be required** if the procedure is performed **outpatient**.

	Outpatient
Commercial Managed Care (HMO and POS)	Prior authorization is **not required**.
Commercial PPO and Indemnity	Prior authorization is **not required**.
Medicare HMO Blue[SM]	Prior authorization is **not required**.
Medicare PPO Blue[SM]	Prior authorization is **not required**.

CPT Codes / HCPCS Codes / ICD Codes

Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.

CPT Codes

There are no specific CPT codes for these services.

HCPCS Codes

HCPCS codes:	Code Description
E0650	Pneumatic compressor, nonsegmental home model
E0655	Nonsegmental pneumatic appliance for use with pneumatic compressor, half arm
E0660	Nonsegmental pneumatic appliance for use with pneumatic compressor, full leg
E0665	Nonsegmental pneumatic appliance for use with pneumatic compressor, full arm
E0666	Nonsegmental pneumatic appliance for use with pneumatic compressor, half leg
E0651	Pneumatic compressor, segmental home model without calibrated gradient pressure
E0656	Segmental pneumatic appliance for use with pneumatic compressor, trunk
E0657	Segmental pneumatic appliance for use with pneumatic compressor, chest
E0667	Segmental pneumatic appliance for use with pneumatic compressor, full leg
E0668	Segmental pneumatic appliance for use with pneumatic compressor, full arm
E0669	Segmental pneumatic appliance for use with pneumatic compressor, half leg
E0652	Pneumatic compressor, segmental home model with calibrated gradient pressure
E0670	Segmental pneumatic appliance for use with pneumatic compressor, integrated, 2 full legs and trunk

E0671	Segmental gradient pressure pneumatic appliance, full leg
E0672	Segmental gradient pressure pneumatic appliance, full arm
E0673	Segmental gradient pressure pneumatic appliance, half leg

Description

Lymphedema and Venous Ulcers

Lymphedema is an abnormal accumulation of lymph fluid in subcutaneous tissues or body cavities resulting from obstruction of lymphatic flow. Lymphedema can be subdivided into primary and secondary categories. Primary lymphedema has no recognizable etiology, while secondary lymphedema is related to a variety of causes including surgical removal of lymph nodes, post radiation fibrosis, scarring of lymphatic channels, or congenital anomalies.

Venous ulcers, which occur most commonly on the medial distal leg, can develop in patients with chronic venous insufficiency when leg veins become blocked. Standard treatment for venous ulcers includes compression bandages or hosiery supplemented by conservative measures such as leg elevation. Pneumatic compression pumps are proposed as a treatment for venous ulcers, especially for patients who do not respond to these standard therapies.

Summary

Pneumatic compression pumps are proposed as a treatment for patients with lymphedema who have failed conservative measures. They are also proposed to supplement standard care for patients with venous ulcers. A variety of pumps are available; they can be single chamber (nonsegmented) or multichamber (segmented) and have varying designs and complexity.

For individuals who have lymphedema who failed to respond to conservative therapy who receive pneumatic compression pumps applied to limb only, the evidence includes randomized controlled trials (RCTs) and systematic reviews of RCTs. The relevant outcomes are symptoms, change in disease status, functional outcomes, and quality of life (QOL). Most RCTs were rated as moderate-to-high quality by an Agency for Healthcare Research and Quality review, and about half reported significant improvements with pumps compared with conservative care. The evidence is sufficient to determine that the technology results in a meaningful improvement in the net health outcome.

For individuals who have lymphedema who failed to respond to conservative therapy who receive pneumatic compression pumps applied to trunk and/or chest as well as a limb, the evidence includes two RCTs comparing treatment with and without truncal involvement. The relevant outcomes are symptoms, change in disease status, functional outcomes, and QOL. In one RCT, two of four key outcomes were significantly better with truncal involvement than without. This trial was limited by small sample size, failure to adjust statistically for multiple primary outcomes, and use of intermediate outcomes (eg, amount of fluid removed) rather than health outcomes (eg, functional status, QOL). The other RCT did not find statistically significant differences between groups for any of the efficacy outcomes. The available evidence does not demonstrate that pumps treating the trunk or chest provide incremental improvement beyond that provided by pumps treating the affected limb only. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals who have venous ulcers who receive pneumatic compression pumps, the evidence includes several RCTs and a systematic review of RCTs. The relevant outcomes are symptoms, change in disease status, morbid events, and QOL. A meta-analysis of three trials found significantly higher healing rates with lymphedema pumps plus continuous compression than with continuous compression alone; however, two of the three trials were judged to be at high-risk of bias. Moreover, the two trials comparing lymphedema pumps with continuous compression did not find significant between-group differences in healing rates. The evidence is insufficient to determine the effects of the technology on health outcomes.

Policy History

Date	Action
4/2019	BCBSA National medical policy review. Description, summary and references updated. Policy statements unchanged.
4/2017	New references added from BCBSA National medical policy.
12/2015	National Coverage Determination (NCD) for Pneumatic Compression Devices (280.6) added.
11/2015	New references added from BCBSA National medical policy.
4/2014	Medicare Local Coverage Determination L11503 added.
3/2014	BCBSA National medical policy review. "Applied to the limb" added to the first 3 policy statements for clarification. In the statement on venous ulcers, "lymphedema pumps" changed to "pneumatic compression pumps." Effective 3/1/2014.
6/2013	BCBSA National medical policy review. New investigational indications described. Effective 6/1/2013.
6/1/2012	New policy describing ongoing coverage and non-coverage.

Information Pertaining to All Blue Cross Blue Shield Medical Policies

Click on any of the following terms to access the relevant information:

Medical Policy Terms of Use
Managed Care Guidelines
Indemnity/PPO Guidelines
Clinical Exception Process
Medical Technology Assessment Guidelines

References

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