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Alaska Medicaid Policy Guidance
Pneumatic Compression Devices

POLICY:

In accordance with 7 AAC 105.100, Alaska Medicaid will consider approval of service authorization requests for pneumatic compression devices (PCDs) when determined to be medically necessary, as outlined in the guidelines and medical criteria below. PCDs coded as E0650, E0651, E0652 are used only in the treatment of lymphedema or for the treatment of chronic venous insufficiency with venous stasis ulcers. Reimbursement for these items is based upon the criteria in the following sections.

BACKGROUND:

Pneumatic compression devices (PCDs) consist of an electrical pneumatic pump and an inflatable garment that encloses the applicable body part. The pump fills the garment with compressed air and intermittently alternates inflation and deflation. Several types of PCDs exist with varying pressures and cycles between devices. It is important to use the correct HCPCS codes for the PCD and related appliance.

The HCPCS codes used for the inflatable appliances used with PCDs E0650-E0652 are:

- E0655 – non-segmental pneumatic appliance for use with pneumatic compressor, half arm
- E0656 – segmental pneumatic appliance for use with pneumatic compressor, trunk
- E0657 – segmental pneumatic appliance for use with pneumatic compressor, chest
- E0660 – non-segmental pneumatic appliance for use with pneumatic compressor, full leg
- E0665 – non-segmental pneumatic appliance for use with pneumatic compressor, full arm
- E0666 – non-segmental pneumatic appliance for use with pneumatic compressor, half leg
- 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
- 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

- A non-segmented pneumatic compressor (E0650) is a device that has a single outflow port on the compressor. Pressurized air from the single outflow port is transmitted to an appliance with single or multiple segments. The segment(s) inflate and deflate based upon the specified pressure and cycle times. The number of segments contained in the appliance does not affect HCPCS coding of the compressor. Appliances appropriate for use with an E0650 PCD are E0655, E0660-E0666, and E0671-E0673.
- A segmented pneumatic compressor (E0651, E0652) is a device that has multiple outflow ports on the compressor. Pressurized air from the outflow ports lead to corresponding segments on the appliance. The segments inflate and deflate based upon the specified pressures and cycle times.
- A segmented device without calibrated gradient pressure (E0651) is one in which either the same pressure is present in each segment or there is a predetermined pressure gradient in successive segments. E0651 PCDs have no ability to individually set or adjust pressures in separate appliance segments. In an E0651 PCD, the pressure is usually set by a single control on the distal segment. Appliances appropriate for use with an E0651 PCD are E0667-E0669.
- A segmented device with calibrated gradient pressure (E0652) is characterized by manual control on at least three outflow ports that can deliver an individually determined pressure to each corresponding appliance segment. Use of tubing and/or appliances that are capable of creating a pressure gradient independently from the compressor does not qualify to classify the compressor as E0652. These methods are not considered as calibrated gradient pressure. Appliances appropriate for use with an E0652 PCD are E0656, E0657, and E0667-E0669.
- All limb appliances (E0655, E0660-E0673) used with PCDs E0650-E0652 must enclose the affected limb(s) sufficiently to prevent retrograde edema fluid flow distally or, conversely, to avoid a tourniquet effect during compression that would prevent distal fluid from moving proximally. Appliances that create a tourniquet effect or cause retrograde flow of edema fluid must be coded A4600 - APPLIANCE FOR INTERMITTENT LIMB COMPRESSION DEVICE, REPLACEMENT ONLY, EACH.

I - LYMPHEDEMA

A PCD coded as E0650 or E0651 is covered for both primary and secondary lymphedema in beneficiaries with chronic and severe lymphedema when **all of** the following three requirements are met:

1.The beneficiary has a diagnosis of lymphedema as defined above, and

2.The beneficiary has persistence of chronic and severe lymphedema as identified by the documented presence of at least one of the following clinical findings:

- ◦Marked hyperkeratosis with hyperplasia and hyperpigmentation,
- ◦Papillomatosis cutis lymphostatica,
- ◦Deformity of elephantiasis,
- ◦Skin breakdown with persisting lymphorrhea,
- ◦Detailed measurements over time confirming the persistence of the lymphedema with a history evidencing a likely etiology, and

3. In addition to this documented persistence, the lymphedema is then documented to be unresponsive to other clinical treatment over the course of a required four-week trial. (See below for trial guidelines.)

- A PCD coded as E0650 or E0651 used to treat lymphedema that does not meet **all of** the requirements above is not eligible for reimbursement. Service authorization requests will be denied as not reasonable and necessary.
- A PCD coded as E0650 or E0651 used to treat edema from causes other than lymphedema is not eligible for reimbursement. Service authorization requests will be denied as not reasonable and necessary.
- A PCD coded as E0652 is not covered for the treatment of lymphedema of the extremities alone even if the criteria in this section are met. Service authorization requests will be denied as not reasonable and necessary. Refer below to the sections III - LYMPHEDEMA EXTENDING ONTO

THE CHEST, TRUNK AND/OR ABDOMEN and PCD Code Selection for additional information about the limited coverage for PCD coded as E0652.

Four-Week Trial for Lymphedema

A four-week trial of conservative therapy demonstrating failed response to treatment is required. The four-week trial of conservative therapy must include **all of** the following:

- •Regular and compliant use of an appropriate compression bandage system or compression garment to provide adequate graduated compression ◦Adequate compression is defined as (1) sufficient pressure at the lowest pressure point to cause fluid movement, and (2) sufficient pressure across the gradient (from highest to lowest pressure point) to move fluid from distal to proximal. The compression used must not create a tourniquet effect at any point.
  - ◦The garment may be prefabricated or custom-fabricated but must provide adequate graduated compression starting with a minimum of 30 mmHg distally.
- •Regular exercise
- •Elevation of the limb

When available, manual lymphatic drainage is a key component of conservative treatment as is appropriate medication treatment when there is concurrent congestive failure.

At the end of the four-week trial, if there has been improvement, then reimbursement for a PCD is not justified. Where improvement has occurred, the trial of conservative therapy must be continued with subsequent reassessment at intervals at least a week apart. Only when no significant improvement has occurred in the most recent four weeks and the coverage criteria above are still met, may the lymphedema be considered unresponsive to conservative therapy, and coverage for a PCD considered.

The medical necessity determination for a PCD by the treating practitioner must include symptoms and objective findings, including measurements, to establish the severity of the condition.

The documentation by the treating practitioner of the medical necessity of a pneumatic compression device must include:

- •The patient's diagnosis and prognosis;
- •Symptoms and objective findings, including measurements which establish the severity of the condition;
- •The reason the device is required, including the treatments which have been tried and failed; and
- •The clinical response to an initial treatment with the device

At a minimum, re-assessments conducted for a trial must include detailed measurements, obtained in the same manner and with reference to the same anatomic landmarks, prior to and at the conclusion of the various trials and therapy, with bilateral comparisons where appropriate.

The trial of conservative therapy must be documented in the beneficiary's medical record before prescribing any type of pneumatic compression device (E0650, E0651, E0652). This assessment may be performed by the treating practitioner or any other licensed/certified medical professional (LCMP) directly involved in the beneficiary's lymphedema treatment. The LCMP may not have any financial relationship with the DMEPOS supplier providing the device. If the assessment is performed by an LCMP, the treating practitioner must receive and review the report of the evaluation. In addition, the treating practitioner must sign and date the report, and state concurrence or disagreement with the assessment. The signature date must be on or before the prescription date.

II - CHRONIC VENOUS INSUFFICIENCY WITH VENOUS STASIS ULCERS (CVI)

A PCD coded as E0650 or E0651 is covered for the treatment of CVI of the lower extremities only if the patient has **all of** the following:

- •Edema in the affected lower extremity
- •One or more venous stasis ulcer(s)

•The ulcer(s) have failed to heal after a six-month trial of conservative therapy directed by the treating practitioner. (See below for trial guidelines.)

- A PCD coded as E0650 or E0651 used to treat CVI that does not meet **all of** the requirements above is not eligible for reimbursement. Service authorization requests will be denied as not reasonable and necessary.
- A PCD coded as E0650 or E0651 used to treat ulcers in locations other than the lower extremity or ulcers and wounds from other causes is not eligible for reimbursement. Service authorization requests will be denied as not reasonable and necessary.
- A PCD coded as E0652 is not covered for the treatment of CVI even if the criteria in this section are met. Service authorization requests will be denied as not reasonable and necessary. Refer below to the sections III - LYMPHEDEMA EXTENDING ONTO THE CHEST, TRUNK AND/OR ABDOMEN and PCD Code Selection for additional information about the limited coverage for PCD coded as E0652.

Six-Month Trial for CVI

A six-month trial of conservative therapy demonstrating failed response to treatment is required. The six-month trial of conservative therapy must include **all of** the following:

•Compliant use of an appropriate compression bandage system or compression garment to provide adequate graduated compression ◦Adequate compression is defined as (1) sufficient pressure at the lowest pressure point to cause fluid movement and (2) sufficient pressure across the gradient (from highest to lowest pressure point) to move fluid from distal to proximal. The compression used must not create a tourniquet effect at any point.

◦The garment may be prefabricated or custom-fabricated but must provide adequate graduated compression starting with a minimum of 30 mmHg distally.

•Medications as appropriate (e.g. diuretics and/or other treatment of congestive failure, etc.)
•Regular exercise
•Elevation of the limb
•Appropriate wound care for the ulcer (including sharp debridement where appropriate)

At the end of the six-month trial, if there has been improvement, then reimbursement for a PCD is not reasonable and necessary. Where improvement has occurred, the trial of conservative therapy must be continued with subsequent reassessments. When no significant improvement has occurred for a continuous period of six months and the coverage criteria above are still met, then the use of a PCD to treat CVI is eligible for reimbursement.

The trial of conservative therapy must be documented in the beneficiary's medical record before prescribing any type of pneumatic compression device (E0650, E0651, E0652). This assessment may be performed by the treating practitioner or any other licensed/certified medical professional (LCMP) directly involved in the beneficiary's CVI treatment. The LCMP may not have any financial relationship with the DMEPOS supplier providing the device. If the assessment is performed by an LCMP, the treating practitioner must receive and review the report of the evaluation. In addition, the treating practitioner must sign and date the report, and state concurrence or disagreement with the assessment. The signature date must be on or before the prescription date.

III - LYMPHEDEMA EXTENDING ONTO THE CHEST, TRUNK AND/OR ABDOMEN

A segmented, calibrated gradient pneumatic compression device (HCPCS code E0652) is only covered when the individual has unique characteristics which prevent them from receiving adequate satisfactory pneumatic compression treatment using a non-segmented device along with a segmented appliance or compression device without manual control of the pressure in each chamber.

A PCD coded as E0652, is covered for the treatment of lymphedema extending onto the chest, trunk and/or abdomen when **all of** the following are met:

•The beneficiary has lymphedema of an extremity as defined above

•The coverage criteria for an E0650 or E0651 are met
•The beneficiary has lymphedema extending onto the chest, trunk and/or abdomen that extends past the limits of a standard compression sleeve, and the chest, trunk and/or abdominal lymphedema has failed to improve with a four-week trial. (See below for trial guidelines.)

A PCD coded as E0652 used to treat lymphedema extending onto the chest, trunk and/or abdomen that does not meet **all of** the requirements above is not eligible for reimbursement. Service authorization requests will be denied as not reasonable and necessary.

A PCD coded as E0652 used to treat lymphedema not extending onto the chest, trunk and/or abdomen or CVI is not eligible for reimbursement. Service authorization requests will be denied as not reasonable and necessary.

Four-Week Trial for Lymphedema Extending Onto the Chest, Trunk and/or Abdomen

A four-week trial of conservative therapy demonstrating failed response to treatment with an E0650 or E0651 is required. The four-week trial of conservative therapy must include **all of** the following:

•At least four weeks of regular, daily, multiple-hour home usage of the E0650 or E0651 after careful, in-person fitting, training and supervision by a technician who is skilled in and who regularly and successfully uses the appliance provided. If E0650 has been trialed and failed, individual must then complete 4 week trial of E0651 OR individual may complete 4 week trial of E0651 without prior use of E0650.

•Compliant use of an appropriate compression bandage system or compression garment to provide adequate graduated compression
◦Adequate compression is defined as (1) sufficient pressure at the lowest pressure point to cause fluid movement and (2) sufficient pressure across the gradient (from highest to lowest pressure point) to move fluid from distal to proximal. The compression used must not create a tourniquet effect at any point.
◦The garment may be prefabricated or custom-fabricated but must provide adequate graduated compression starting with a minimum of 30 mmHg distally.
•Regular exercise
•Elevation where appropriate
•Manual lymphatic drainage (where available) and self-manual lymphatic drainage (MLD) for at least 30 minutes per day
•Evaluation of diet and implementation of any necessary change
•Medications as appropriate (e.g. diuretics and/or other treatment of congestive failure, etc.)
•Correction (where possible) of anemia and/or hypoproteinemia

At the end of the four-week trial, if there has been improvement of the lymphedema extending onto the chest, trunk and/or abdomen, then reimbursement for an E0652 is not justified. Where improvement has occurred, the trial of conservative therapy must be continued with subsequent reassessment at intervals at least a week apart. When and only when no significant improvement has occurred in the most recent four weeks and the coverage criteria above are still met, an E0652 is eligible for reimbursement.

The trial of conservative therapy must be documented in the beneficiary's medical record before prescribing any type of pneumatic compression device (E0650, E0651, E0652). This assessment may be performed by the treating practitioner or any other licensed/certified medical professional (LCMP) directly involved in the beneficiary's lymphedema treatment. The LCMP may not have any financial relationship with the DMEPOS supplier providing the device. If the assessment is performed by an LCMP, the treating practitioner must receive and review the report of the evaluation. In addition, the treating practitioner must sign and date the report, and state concurrence or disagreement with the assessment. The signature date must be on or before the prescription date.

- A segmented, calibrated gradient pneumatic compression device (HCPCS code E0652) is only covered when the individual has unique characteristics which prevent them from receiving adequate satisfactory pneumatic compression treatment using a non-segmented device along

with a segmented appliance or compression device without manual control of the pressure in each chamber.

- The only “unique characteristics” identified in the clinical literature that requires the use of an E0652 device is lymphedema extending onto the chest, trunk and/or abdomen which has remained unresponsive to all other therapies.

DEFINITIONS

For Alaska Medicaid reimbursement purposes the following definitions are used in this policy.

Edema:
Edema is a non-specific term for the accumulation of fluid in tissue, most often in the extremities. There are numerous causes for edema, ranging from systemic disorders (e.g. congestive heart failure, etc.) to local conditions (post-surgery, congenital abnormalities, etc.). (Examples are not all-inclusive).

Lymphedema, as discussed below, is just one group of conditions that can be a cause of accumulation of fluid in the tissue. Lymphedema arises from disorders of the lymphatic system. It is essential to rule out other causes of edema in order to diagnose lymphedema. Edema from other causes is not classified as lymphedema for purposes of Medicare reimbursement for PCDs (E0650, E0651, E0652).

Primary lymphedema:
Primary lymphedema is a disorder of the lymphatic system that occurs on its own. It is inherited and uncommon. Examples (not all-inclusive) are:
•Congenital lymphedema due to lymphatic aplasia or hypoplasia
•Milroy's disease, an autosomal dominant familial form of congenital lymphedema
•Lymphedema praecox
•Lymphedema tarda

Secondary lymphedema:
Secondary lymphedema is a disorder of lymphatic flow that is caused by some other disease or condition. It is more common than primary lymphedema. It is most commonly caused by surgery (especially lymph node dissection, such as for breast cancer), radiation therapy (especially axillary or inguinal), trauma, lymphatic obstruction by tumor, and, in developing countries, lymphatic filariasis. Secondary lymphedema may also result from compression of the lymphatic and venous channels resulting from leakage of fluid into interstitial tissues in patients with chronic venous insufficiency. (See below)

Chronic Venous Insufficiency (CVI):
Lymphedema may also be caused by CVI when fluid leaks into the tissues from the venous system. CVI of the lower extremities is a condition caused by abnormalities of the venous wall and valves, leading to obstruction or reflux of blood flow in the veins. Signs of CVI include hyperpigmentation, stasis dermatitis, chronic edema, and venous ulcers. The incidence of lymphedema from CVI is not well established.

If you have questions, please contact Karen Benson at Karen.Benson@Alaska.gov or Tracy Stephens at Tracy.Stephens@Alaska.gov.

References:
7 AAC 105.100. Covered services