

## Lymphedema Workbook Jodi Steele, PT 2015 – Updated 2020

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### What is Lymphedema?

Lymphedema is a condition in which fluid and protein accumulate in the extravascular interstitial spaces of a limb. This condition is the most chronic complication after dissection of lymph nodes. Secondary lymphedema can cause pain, discomfort, decreased mobility, cellulitis and lymphangitis. Lymphedema is a chronic condition that is not curable at present. <sup>1</sup>

### What is the Role of the Lymphatic System?

The lymphatic system is a group of small organs (nodes) and vessels through which lymph fluid flows. The lymphatic system functions in cooperation with the circulatory system, which carries blood throughout the body. Impurities are removed from the circulatory system by the lymphatics and are broken down by cells important in fighting bacteria and viruses. The lymphatic system also plays a role in maintaining fluid balance throughout the body. <sup>2</sup>

### **Components of the System** <sup>2</sup>

### 1. Initial Lymphatics

- Beginning point of system
- Outer bits of the vessel walls are attached to all surrounding tissues
- Pressure changes are required to function

### 2. Collecting Vessels

- Receive drainage from the initial lymphatics
- Contain one-way valves which keep the fluid flowing in one direction

### 3. Lymph Nodes

- Filtering station for cleansing of lymphatic fluid
- Centres for growth and storage of 'lymphocytes' (cell housekeepers)
- Slow down the fluid and protein transport

### 4. Major Lymphatic Ducts

- Originating in the cisterna chyli in the tummy region, the thoracic duct is the largest lymph vessel
- Right lymphatic duct is at the root of the neck

### Classification <sup>3,4</sup>

- Primary: the result of a congenital abnormality of the lymphatic system
- Secondary: results from damage to the lymph vessels or nodes.

### What Causes Secondary Lymphedema?

Secondary lymphedema commonly occurs when there is an infection, or trauma that interrupts the normal function of the lymphatic pathways. It often occurs following surgery and radiation treatment for cancer. The surgical removal of lymph nodes in the areas adjacent to a tumour may block the flow of lymph through the system. Radiation therapy may damage otherwise healthy lymph nodes causing scar tissue to form and again interrupting the flow of lymph through the system.

### Staging <sup>3</sup>

- Stage 0: Risk Factors •
- Stage 1: Spontaneously Reversible (goes down overnight) •
- Stage 2: Spontaneously Irreversible •
- Stage 3: Elephantiasis ٠

### What is not Lymphedema! <sup>3</sup>

Not Lymphedema	Description	Image
Congestive Heart Failure	<ul> <li>Bilateral swelling of ankles</li> <li>Pitting</li> <li>Changing from one day to another</li> </ul>	1
Chronic Venous Insufficiency	<ul> <li>Chronic bilateral changes of legs and ankles</li> <li>The skin may react with varicose eczema, local inflammation, discoloration, thickening, and an increased risk of ulcers and cellulitis</li> </ul>	2
Lipedema	<ul> <li>Inherited</li> <li>It occurs almost exclusively in women</li> <li>It involves the excess deposit of fat cells, bilateral and symmetrical from the waist to above the ankles</li> </ul>	

<sup>&</sup>lt;sup>1</sup>"Water booble in the leg caused by congestive heart failure" is licensed by <u>Usernet123U</u> is licensed under <u>CC BY- SA-4.0</u>

 <sup>&</sup>lt;sup>2</sup> Chronicvenusinsufficiency is licensed by <u>Steinsplitter Bot</u> is licensed under <u>CC BY- SA-4.0</u>
 <sup>3</sup> Figure 1 was published in <u>PRS Global Open 2016 Sep; 4(9): e1043</u> and is licensed under <u>CC BY-NC-ND-4.0</u>

### **Clients at Risk**

The following factors may put a client at risk of developing lymphedema. It may also predict progression, severity and outcome. <sup>3,6,7,8,9,10</sup>

Upper Extremity Lymphedema	Lower Extremity Lymphedema
<ul> <li>Surgery with axillary node dissection</li> <li>Scar formation</li> <li>Radiation to breast, axillary, internal mammary or subclavicular nodes</li> <li>Drain and/or wound complications infection</li> <li>Axillary web syndrome</li> <li>Seroma formation</li> <li>Advanced cancer</li> <li>Obesity</li> <li>Congenital predisposition</li> <li>Trauma to the at risk arm</li> <li>Chronic skin disorders and inflammation</li> <li>Hypertension</li> <li>Taxane chemotherapy</li> <li>Air travel</li> </ul>	<ul> <li>Surgery with inguinal node dissection</li> <li>Postoperative pelvic radiation</li> <li>Infection</li> <li>Obesity</li> <li>Varicose vein stripping</li> <li>Genetic predisposition</li> <li>Advanced cancer</li> <li>Intra pelvic or intra abdominal tumours</li> <li>Orthopaedic surgery</li> <li>Poor nutrition</li> <li>Thrombophlebitis</li> <li>Chronic skin disorders and inflammation</li> <li>Immobilisation, prolonged limb dependency</li> <li>Air travel</li> </ul>
Lymphedema Framework. International consensus. Best Medical Education Partnership Ltd: 2006.	Practice for the management of lymphoedema. London, UK:

### Tips to Reduce the Risk of Lymphedema after Cancer Treatments <sup>6,7,8,9,10</sup>

Early diagnosis results in more effective treatment, possible prevention, and less severe lymphedema.

The following may help reduce a clients' risk of lymphedema:

- Taking care of nails and skin, i.e., hangnails and cuts cause trauma
- Maintaining optimal body weight (BMI <30 kg/m2)</li>
- Eating a balanced diet
- Avoiding trauma to affected area
- Avoiding tight clothing and jewellery
- Avoiding exposure to extreme cold and heat
- Avoiding blood pressure test in affected arm
- Using sunscreen and bug repellent
- Wearing lymphedema garments
- Exercising (initiate exercise as soon as possible)
- Elevating limb
- Wearing comfortable and supportive shoes

### Lymphedema Assessment

There are several types of assessments for lymphedema that be used in conjunction with each other. They are: medical, specialist, psychosocial and physical. This manual focuses on physical assessment, but the following briefly describes the others mentioned.

### **Medical Assessment**

In some situations a medical assessment may benefit in the diagnosis of lymphedema. The following is a list of diagnostic tools:

- Ultrasound
- Positron Emission Topography (PET)
- Doppler Ultrasound
- Lymphoscintigraphy
- Magnetic Resonance Imaging (MRI)

### **Possible Reasons for a Medical Referral**

- Swelling of head, neck, trunk
- Medical conditions: arterial disease, diabetes, venous insufficiency, chronic skin conditions
- Sudden increase in pain
- Neuropathy
- Wounds
- Cellulitis

### **Physical Assessment**

The following section explains the physical assessment of lymphedema.

### **Subjective Measures**

- Client Symptoms: Heaviness, tightness, swelling and pain
- Comments on cord like structure (Axillary Web Syndrome or Lymphatic Cording)

### **Objective Measures**

- Stemmer's Sign: Dorsum skin pinch of second finger at the metacarple-phaligeal joint. If the skin does not go back down it can be a sign of dehydration and/or lymphedema
- Palpation: Pitting, fibrosis, loss of boney contours and skin mobility
- Infection (cellulitis): Redness of the skin, swelling, warmth, pain and tenderness, drainage or leakage, tender lymph nodes, fever
- Temperature Warm can mean cellulitis or deep vein thrombosis
- Peripheral Refill Blanching the tip of the finger and watching for the colour to return helps to determine if compression is to tight

### Limb Volume Measurements 12,13,14,15

Lymphedema is considered evident if the volume of the swollen limb is 10% greater than the unaffected limb. Keep in mind the dominant arm of a client can be up to 2 cm greater and a volume 8-9% higher than the opposite arm.

### **Limb Volume Measurement Methods**

### Anatomical Landmark Lymphedema Measurement Method

Volumes calculated from anatomic landmarks are reliable, valid and more accurate than those obtained from circumferential measurements based on distance from fingertips.  $^{\rm 15}$ 

A difference in two centimetres from baseline to follow-up warrants the start of a lymphedema program.

(measured in centimetres)

Arm	MCPs	Wrist	10cm Below Lat. Epicondyle	15cm Above Lat. Epicondyle
Left				
Right				
Leg	МТР	Ankle	10cm Below Lat. Femoral Condyle	15cm Above Lat. Femoral Condyle
Left				
Right				

### Functional Assessment<sup>3</sup>

Upper Limb	Lower Limb
<ul> <li>Ability to fasten buttons</li> <li>Ability to put on and off garment or bandages</li> <li>Effects on activities of daily living</li> <li>Use of aids</li> </ul>	<ul> <li>Ability to get up from sitting or lying</li> <li>Ability to walk</li> <li>Ability to lift affected leg</li> <li>Effects on Activities of daily living</li> <li>Use of aids</li> <li>Ability to put on or take off footwear</li> </ul>

### **Assess for Lymphatic Cording**

- Palpation (feeling taut cord, like a `guitar or piano string`)
- Place arm in depression, abduction, shoulder external rotation and then extension first at elbow the wrist and then finger, then assess for pain, decreased range and cord like structure

### Scar Assessment

The scar left from cancer surgery and radiation needs to be assessed to determine if it is causing limitations in range of motion, pain or complications to lymphedema. The ability to move the skin over the mastectomy scar needs to be assessed.

### Assessment of Client Knowledge

Signs and Symptoms of Cellulitis:

- Redness of the skin
- Swelling
- Warmth
- Pain and tenderness
- Drainage or leakage
- Tender lymph nodes
- Fever

Importance of Exercise:

- Decrease weight
- Improve lymph flow
- Improve quality of life
- More healthy

### Self Care Strategies:

- Hygiene
- Bandaging
- Exercise regime and progression
- Garment donning
- Self massage

### **Treatment Decisions**

The best practice for lymphedema is a holistic multidisciplinary approach that includes; exercise, compression, skin care, risk reduction, massage, pain and psychosocial management.

### Safety Issues <sup>3</sup>

- Clients with peripheral arterial occlusive disease should not wear sustained compression exceeding 25 mmHg
- During periods of acute infection, compression should be reduced or removed if painful and no massage.
- Clients with congestive heart disease should not participate in a lymphedema program

### Successful Outcomes <sup>3</sup>

- Reduction in size and volume
- Improved skin condition
- Improved subcutaneous tissue consistency
- Improved limb shape
- Improved limb function
- Improved symptom control
- Enhanced management skills

### Upper and Lower Limb Management <sup>3</sup>

- Psychosocial support
- Education
- Skin care
- Exercise and movement
- Elevation and deep breathing
- Management of medical conditions, pain and discomfort
- Compression garments
- Bandages
- Massage

### **Care Path at a Glance**

Intensive Therapy	Transition Management	Self Management (7-10
(2 -4 visits)	(3 - 6 visits)	visits)
<ul> <li>Skin care</li> <li>Exercise</li> <li>Bandages</li> <li>Massage</li> <li>Education</li> <li>Psychosocial support</li> </ul>	<ul> <li>Skin care</li> <li>Exercise</li> <li>Bandage and/or garments</li> <li>Self-massage</li> <li>Education</li> <li>Support self-management</li> <li>Reduce practitioner support</li> </ul>	<ul> <li>Skin care</li> <li>Exercise</li> <li>Compression garments</li> <li>Self-massage</li> <li>Management of medical conditions, pain and discomfort</li> </ul>

### <u>Skin Care</u>

Good skin care plays a vital part in the treatment of lymphedema. Germs can enter through the skin, even the tiniest of scraps. The protein-rich fluid in the swollen area acts as an ideal breeding ground for bacteria. Clients will need to see their doctor immediately if they develop an infection (sometimes called cellulitis). Their limb may become red, hot and very painful. They may complain of feeling generally unwell and may lose their appetite. Antibiotics are usually needed to clear it up and they should be started immediately.

### General Principles to good skin care <sup>3</sup>

- Wash daily
- Ensure skin folds are clean
- Monitor skin for cuts, bites, abrasions, burns
- Moisturize your skin every day by gently smoothing in non-perfumed cream or oil.
- Avoid extreme temperatures
- No injections or blood pressure in that arm.

### What you may see?

Skin Condition <sup>3</sup>	Description
Folliculitis	Inflammation of the hair follicles
Fungal infection	Moist, whitish, scaling and itching commonly in skin folds
Lymphangiectasia	Soft fluid filled projections caused by dilation of the lymphatic vessel
Papillomatosis	Firm raised projections caused by dilation of the lymphatic vessel and fibrosis
Lymphorrhea	Occurs when lymph leaks from the skin surface
Ulceration	Open wound, will need specialist referral
Venous eczema	Skin becomes pigmented, inflamed, scaly and itchy. Often associated with varicose veins and located most commonly around the ankles
Contact dermatitis	The result of allergic or irritant reaction. Skin becomes red, itchy, scaly and may weep or crust.

### Treatment

- Teach client to examine skin daily
- Watch for marks on skin from bandages and compression garments
- React quickly to trauma to skin
- Teach signs and symptoms of cellulitis

### Lymphatic Massage

### Manual Lymphatic Massage

Manual Lymphatic Massage (MLD) is a gentle massage that is one of the key components to Lymphedema management. MLD moves fluid away from the congested area by increasing activity in normal lymphatic tissue.

### Self Massage

In this type of massage, the soft tissue of the body are lightly rubbed, tapped, and stroked. It is a very light touch, almost like a brushing. Self massage is a self administrated version of MLD that clients and caregivers can learn and apply themselves. Self massage takes approximately 15 minutes and is performed daily.

### Contraindications to Self Massage <sup>3</sup>

- Acute cellulitis
- Renal failure
- Unstable hypertension
- Severe cardiac insufficiency
- Ascites (swelling of the abdomen)
- Superior vena cava obstruction

### **Bandages**

Bandaging is a key element of the CCAC Palliative Care Lymphedema Directive. Bandages reduce lymphedema, restore shape to limb, reduce skin changes, support skin, eliminate lymphorrhea and soften subcuteous tissues (example; cords). Bandages help to increase tissue pressure, improve lymphatic return and provide counter pressure against the muscle pump during exercise. Encourage clients to learn bandaging as soon as possible

### **Short Stretch Bandages**

Principles of Short Stretch Bandages:

- Short stretch bandages have a high working pressure and a low resting pressure
- Avoid using tensor bandages (or ACE wrap), they do not provide enough pressure
- Comprilan\* or Rosidal\* compression bandages are most effective
- Start bandaging distally to proximally
- Prevent creasing when wrapping
- Apply addition padding to boney areas or near creases
- Apply bandages at 50% extension and 50% overlap
- Use several bandages to form overlap
- Wear bandages at night and during exercise (minimum of one hour/day), longer periods of use may be recommended for some clients
- Assess security, comfort, sensation, mobility and circulation after bandaging

### **Contraindications**

- Arterial insufficiency
- Uncontrolled heart failure
- Severe peripheral neuropathy

### **3M Coban 2 Compression Systems**

Principles

- Volume reduction without the bulk of traditional bandages
- Applied twice weekly for 3 weeks
- Worn 24 hours per day
- Allow patient maximum mobility
- Helps client maintain independence

### Application

- The white comfort foam layer is applied first
- The tan compression layer is applied second
- Green box has 25% reduced resting pressure, used for arms, shoulders, fingers and toes (approximately \$250.00)
- Purple packaging used for legs, feet, hips and torso (approximately \$350.00)
- 3M will provide names of vendors for member access

Two studies provided:

Lamprou D, Damstra R, Partsch H. Prospective, randomized, controlled trial comparing a new twocomponent compression system with inelastic multicomponent compression bandages in the treatment of leg Lymphedema. American Society for Dermatologic Surgery 2011: 985-991.

Morgan P, Murray S, Moffatt, Honnor A. The challenges of managing complex lymphoedema/chronic oedema in the UK and Canada. International Wound Journal 2011:1-16.

### **Compression Garments**

Clients should be sent to a professional to be fitted for compressive garments.

Compressive garments are used in the long term management of lymphedema. They may be used for prophylaxis, in the initial treatment or for maintenance.

### Criteria for client suitability <sup>3</sup>

- Intact skin
- Minimal shape changes of the limb
- Minimal pitting
- Swelling that can be contained by compression
- Ability to tolerate garments
- Ability to monitor skin condition
- Self management (client is able to put on and take off)

### **Contraindications** <sup>3</sup>

- Arterial insufficiency
- Acute cardiac issues
- Deep skin folds
- Lymphorrhea
- Ulceration
- Peripheral neuropathy

### **Types of Garments**

Circular Knit Garments	Flat Knit Garments
<ul> <li>Ready to wear garments</li> <li>Thinner</li> <li>More cosmetically acceptable</li> <li>Worn during day</li> </ul>	<ul> <li>Custom made</li> <li>Firmer and thicker</li> <li>Difficult to put on and take off</li> <li>Worn during day</li> </ul>

### **Compression Garments for Upper Limb**<sup>3</sup>

\*No recommendations available for leg lymphedema

Indications	Compression	Recommendation
Prophylaxis Mild lymphedema Maintenance Palliation	15-20 mmHg 20-30mmHg	Ready to wear Circular Knit
Moderate lymphedema	30-40 mmHg	Circular or flat knit
Severe lymphedema	>40 mmHg	Custom made Flat Knit

### **Exercise**

Exercise was originally thought to exacerbate lymphedema. Recent studies have shown no significant change in arm volume with resistance or aerobic exercise. <sup>17,18,19,20,21,22,23</sup>

Clients with lymphedema commonly experience declines in physical functioning and quality of life. These may be reversed with exercise. Exercise is the key component to this program.

### **Types of Exercise**<sup>24</sup>

Туре	Purpose
Remedial Exercise	<ul> <li>Specific exercises on affected limb</li> <li>Always performed with some type of compression on</li> <li>Encourages congested lymph to flow along a compression gradient</li> </ul>
Aerobic	<ul><li>Stimulates lymph sequestration and transport</li><li>Compression should be worn</li></ul>
Resistive Training	<ul> <li>Should be very gradual</li> <li>Enhance muscles functional capacity (decreased fatigue)</li> <li>Compression is recommended</li> </ul>
Flexibility	• Release fibrosis, enhance posture and facilitate lymph flow

### Goals

- Encourage normal activities of daily living
- Develop individualized exercise programs
- Compression bandages must be worn during exercise
- Exercise should be moderate intensity

### **Benefits of Exercise**

- Improves quality of life
- Helps attain or maintain healthy body mass index
- Reduces risk of lymphedema
- Helps manage lymphedema
- Improves functional capacity

### Manual Therapy

### Scar Massage

Apply moderate pressure using the second and third finger as you move up and down along the length of the scar. Appling lotion to finger tips will reduce friction at the scar and help minimize discomfort. Scar massage should be done daily by client for 3 minutes. Scar massage should be reviewed by the therapist on a weekly basis.

### Lymphatic Cording

Axillary Web Syndrome (lymphatic cording) is a painful and functionally limiting complication of breast cancer treatment. Lymphatic cording is likely due to lymphatic thrombosis, after lymph node dissection. Lymphatic Cording is a more accurate term for this syndrome because it can also occur in the leg after lymph node dissection, at the groin or behind the knee. <sup>35,36,37,38,39</sup>

Lymphatic cording can cause:

- Pain
- Avoidance of movement
- Adaptive postures (shoulder position is slightly protracted with mild thoracic kyphosis in an effort to have less pull on the cord)
- Limited range of motion
- Limitations in activity and function
- Area around cord may look edematous
- Increases risk of lymphedema

### **Research Support for Resolution of Lymphatic Cording**

Physical therapy may promote resolution of lymphatic cording in breast cancer survivors <sup>39</sup>

- Left untreated the cords take a minimum of 3 months to resolve, if they resolve at all
- With early physiotherapy intervention the cords resolves on average in 7 weeks
- Thrombosed lymphatics go through an inflammatory phase with thickening of the vessels and temporary shortening and tightening which later remits
- The cords are made taut and painful by shoulder abduction
- You may hear snap or pop where the cord actually breaks in the antecubital fossa or in the axilla
- The client usually feels immediate relief and increase in mobility
- Full range of motion and full function may be gained in one therapy session

Treatment of Lymphatic Cording

- Active and passive stretching
- DARE stretch (therapist and self) or gliding techniques
- Skin traction techniques (include area around drain scar)
- Soft tissue and cord stretching (myofascial release)
- Hooking manipulation
- Scar release techniques (skin rolling and vertical lifts of the scar)
- Manual lymph drainage or self massage (see massage section of module)
- Light compression or bandaging (see garment and bandaging section of module)
- Client education (see calendar)
- Exercises



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	YMPHEDEMA	General Tips
U)	Self-Massage: Arm	<ul> <li>Always direct massage towards working lymph nodes (i.e. neck)</li> </ul>
		<ul> <li>Begin your sweeps closest to the body (proximal) and move outwards along the extremity (distal)</li> </ul>
		Apply gentle pressure
		<ul> <li>Try to elevate the limb while massaging</li> </ul>
		m Salf Maccard
•	Deep breathing (Belly breaths) X 15 Inhale throug	ר your nose, exhale through your mouth
•	Locate the hollow above the collarbone with your lease. Repeat 15 times	fingertips. Gently stretch the skin in a circle toward the neck and re-
•	On your unaffected side (if you have not had lymp breast (close to your arm pit). Gently stretch the sk	n nodes removed) place your finger tips at the outside edge of your tin in circles and release. Repeat 15 times.
•	On both sides, place your fingertips along your grc Repeat 15 times.	in crease. Gently stretch the skin in a circular motion and release.
•	Place your full hand in the armpit against the ribca wards towards your belly. Repeat 15 times.	ge of your affected side. Using gentle motions, slowly sweep down-
•	Place your full hand 1/3 of the way down your upp part of your shoulder, and towards the neck. Repe	er arm. Using gentle motions, sweep up the arm, around the front at 15 times.
•	Place your hand 2/3 of the way down your upper a and towards the neck. Repeat 15 times.	rm and sweep up the arm, around the front part of your shoulder,
•	Move your hand to the elbow and continue to swe the neck. Repeat 15 times.	ep up the arm, around the front part of your shoulder, and towards
•	From your wrist, sweep up the arm, around the fro the front and backside of the forearm.	ont part of your shoulder, and towards the neck 15 times. Do this on

### LYMPHEDEMA

# Self-Massage: Leg



### General Tips

- Always direct massage towards working lymph nodes
- Begin your sweeps closest to the body (proximal) and move outwards along the extremity (distal)
- Apply gentle pressure
- Try to elevate the limb while massaging

### Leg Self Massage

- Take deep belly breaths by inhaling through your nose and exhaling through your mouth. Repeat 15 times.
- Locate the hollow above the collarbone with your fingertips, gently stretch the skin in a circle toward the neck and release. Repeat 15 times.
- Place your finger tips at the outside edge of your breasts (close to your arm pit) and gently stretch the skin in circles and release. Repeat 15 times.
- On your unaffected side place your fingertips along your groin crease. Gently stretch the skin in a circular motion and release. Repeat 15 times.
- Place your full hand at groin against your affected side. Using gentle motions, slowly sweep upwards towards your belly. Repeat 15 times.
- Place your full hand 1/3 of the way down your thigh. Using gentle motions, sweep up the leg, towards the belly. Repeat 15 times.
- Place your hand 2/3 of the way down your thigh and sweep up the leg, towards the belly. It may be very difficult to reach down your leg, so use a paint roller with an extended handle (ask a professional for help). Repeat 15 times.
- Move your hand to knee and continue to sweep up the leg, around any scars, and towards the belly. Repeat 15 times.
- From your ankle, sweep up the leg, around any scars, and towards the belly Repeat 15 times. Do this on the front and backside of the leg. You may need an assistive device to reach the lower leg and foot.

# LYMPHEDEMA





### **General Principles**

Bandaging

- Short stretch have a high working pressure and a low resting pressure
- Start bandaging fingers towards arm pit
- Prevent creases
- Apply addition padding to boney areas or near creases
- Apply bandages at 50% extension and 50% overlap
- Use several layers
- Assess security, comfort, sensation, mobility and circulation after bandaging



















### **General Principles**

Bandaging

- Short stretch have a high working pressure and a low resting pressure
- Prevent creases

LYMPHEDEMA

- Apply addition padding to boney areas or near creases
- Apply bandages at 50% extension and 50% overlap
- Use several layers
- Assess security, comfort, sensation, mobility and circulation after bandaging













### LYMPHEDEMA

**Exercises:** Arm

### Exercise will:

- Improve quality of life
- Attain or maintain healthy Body Mass Index
- Reduce risk of Lymphedema
- Manage Lymphedema
- Improve functional capacity

Exercise Log						
Week	Strength	Aerobic	Comments			
1						
2						
3						
4						
5						











# Exercises: Leg





Quick Reference Guide for Authorizing Lymphedema Care
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Lymphedema	Service	Interventions	Recommended Products
Secondary Lymphedema: Leg	Week 1 (1 visit)         • Initial Assessment         Week 2 (2-3 visits)         • Education on skin care         • Bandaging         Week 3 (2 visits)         • Self-massage         • Exercise         • Bandaging continued         Week 4 (1 visit)         • Same as week 3         • Evaluate progress         Week 5 (1 visit)         • Same as week 3         • Monitoring	<ul> <li>Prevention Interventions</li> <li>Assessment: see lymphedema assessment assessment</li> <li>Evidence based lymphedema care:         <ul> <li>Skin care</li> <li>Skin care</li> <li>Bandaging and self-massage to reduce volume of limb</li> <li>exercise</li> </ul> </li> <li>ADP authorization for garment</li> </ul>	<ul> <li>Comprilan Short Stretch Bandages</li> <li>8cm X 5m - quantity 2</li> <li>10cm X 5m - quantity 2</li> <li>Medipore tape (10 cm) - quantity 2</li> <li>Rosidal Soft - Roll 0.4cm x 10cm x 2.5cm - quantity 1</li> <li>Rosidal Soft - Roll 0.4cm x 12cm x 2.5cm - quantity 1</li> <li>Rosidal Soft - Roll 0.4cm x 12cm x 2.5cm - quantity 1</li> <li>Rosidal Soft - Roll 0.4cm x 12cm x 2.5cm - quantity 1</li> <li>Romon 24 hours per day</li> <li>The white comfort foam layer is applied first</li> <li>The tan compression layer is applied first</li> </ul>
Secondary Lymphedema: Palliative Leg	<ul> <li>Week 1 (1 visit)</li> <li>Initial Assessment</li> <li>Education on skin care</li> <li>Education on skin care</li> <li>Bandaging (if tolerable)</li> <li>Week 3 (2 visits)</li> <li>Self-massage</li> <li>Bandaging continued</li> <li>Week 4 (1 visit)</li> <li>Same as week 3</li> <li>Evaluate progress</li> <li>Week 5 (1 visit)</li> <li>Same as week 3</li> <li>Monitoring</li> </ul>	<ul> <li>Prevention Interventions</li> <li>Assessment: see lymphedema assessment</li> <li>Evidence based lymphedema care:         <ul> <li>Skin care</li> <li>Skin care</li> <li>exercise</li> <li>exercise</li> </ul> </li> </ul>	<ul> <li>Comprilan Short Stretch Bandages</li> <li>8cm X 5m - quantity 2</li> <li>10cm X 5m - quantity 2</li> <li>Medipore tape (10 cm) - quantity 2</li> <li>Rosidal Soft - Roll 0.4cm x 10cm x 2.5cm - quantity 1</li> <li>Rosidal Soft - Roll 0.4cm x 12cm x 2.5cm - quantity 1</li> <li>*Having multiple complete sets of Comprilan limits the amount of laundry a patient's family will need to do</li> </ul>

Lymphedema Type	Service Frequency	Interventions	Recommended Products
Secondary Lymphedema: Arm	Week 1 (1 visit)• Initial AssessmentWeek 2 (2-3 visits)• Education on skin care• BandagingWeek 3 (2 visits)• Self-massage• Exercise• Bandaging continuedWeek 4 (1 visit)• Same as week 3• Evaluate progressWeek 5 (1 visit)• Plan for discharge• Plan for discharge	<ul> <li>Prevention Interventions</li> <li>Prevention Interventions</li> <li>Assessment: see lymphedema assessment</li> <li>Evidence based lymphedema care:         <ul> <li>Skin care</li> <li>Skin care</li> <li>Bandaging and self-massage to reduce volume of limb</li> <li>exercise</li> </ul> </li> <li>ADP authorization for garment</li> </ul>	<ul> <li>Comprilan Short Stretch Bandages</li> <li>6cm X 5m - quantity 1</li> <li>8cm X 5m - quantity 1</li> <li>10cm X 5m - quantity 1</li> <li>10cm X 5m - quantity 1</li> <li>Cling wrap - quantity 10</li> <li>Cling wrap - quantity 10</li> <li>OR</li> <li>3M Coban 2 Compression System</li> <li>Applied twice weekly for 3 weeks</li> <li>Worn 24 hours per day</li> <li>The white comfort foam layer is applied first</li> <li>The white comfort foam layer is applied first</li> <li>the arms, shoulders, fingers and toes (approximately \$250.00)</li> </ul>
Secondary Lymphedema: Palliative Arm	<ul> <li>Week 1 (1 visit)</li> <li>Initial Assessment</li> <li>Education on skin care</li> <li>Bandaging if tolerable</li> <li>Week 3 (2 visits)</li> <li>Self-massage (taught to caregiver)</li> <li>Bandaging continued</li> <li>Week 4 (1 visit)</li> <li>Same as week 3</li> <li>Evaluate progress</li> <li>Week 5 (1 visit)</li> <li>Same as week 3</li> <li>Montoring</li> </ul>	<ul> <li>Prevention Interventions</li> <li>Assessment: see lymphedema assessment</li> <li>Evidence based lymphedema care:         <ul> <li>Skin care</li> <li>Bandaging and self-massage</li> <li>exercise</li> </ul> </li> </ul>	<ul> <li>Comprilan Short Stretch Bandages</li> <li>6cm X 5m - quantity 1</li> <li>8cm X 5m - quantity 1</li> <li>10cm X 5m - quantity 1</li> <li>Having multiple complete sets of Comprilan limits the amount of laundry a patient's family will need to do</li> </ul>

### Lymphedema Assessment

Assessor:				Date:		
Name:		□ Male □ Fe	male	DOB:		
History of Current Condition		Past Medical History				
Age of onset:						
Investigations:						
Current symptoms:						
Current/previous cellulitis:						
Current treatment for lymphede						
Past treatment for lymphedema:						
Functional Assessment       Medication         □ Ability to get up from sitting or lying       □ Use of aids         □ Ability to walk       □ Ability to put on or take off footwear         □ Ability to lift affected leg       □ Ability to fasten buttons         □ Effects on Activities of daily living       □ Ability to put on and off garment or bandages						
Lymphedema Measurement (centimeters)						
Arm	Arm MCPs			10 Lat.	cm Below Epicondyle	15cm Above Lat. Epicondyle
Left						
Right						
Leg	МТР		Ankle	10 Lat Fe	cm Below moral Condyle	10cm Above
Left						
Right						
Pain						
Lymphatic Cord and/or Scar						
Treatment Plan Care path: Supply kit: Client package:						
Signature:						