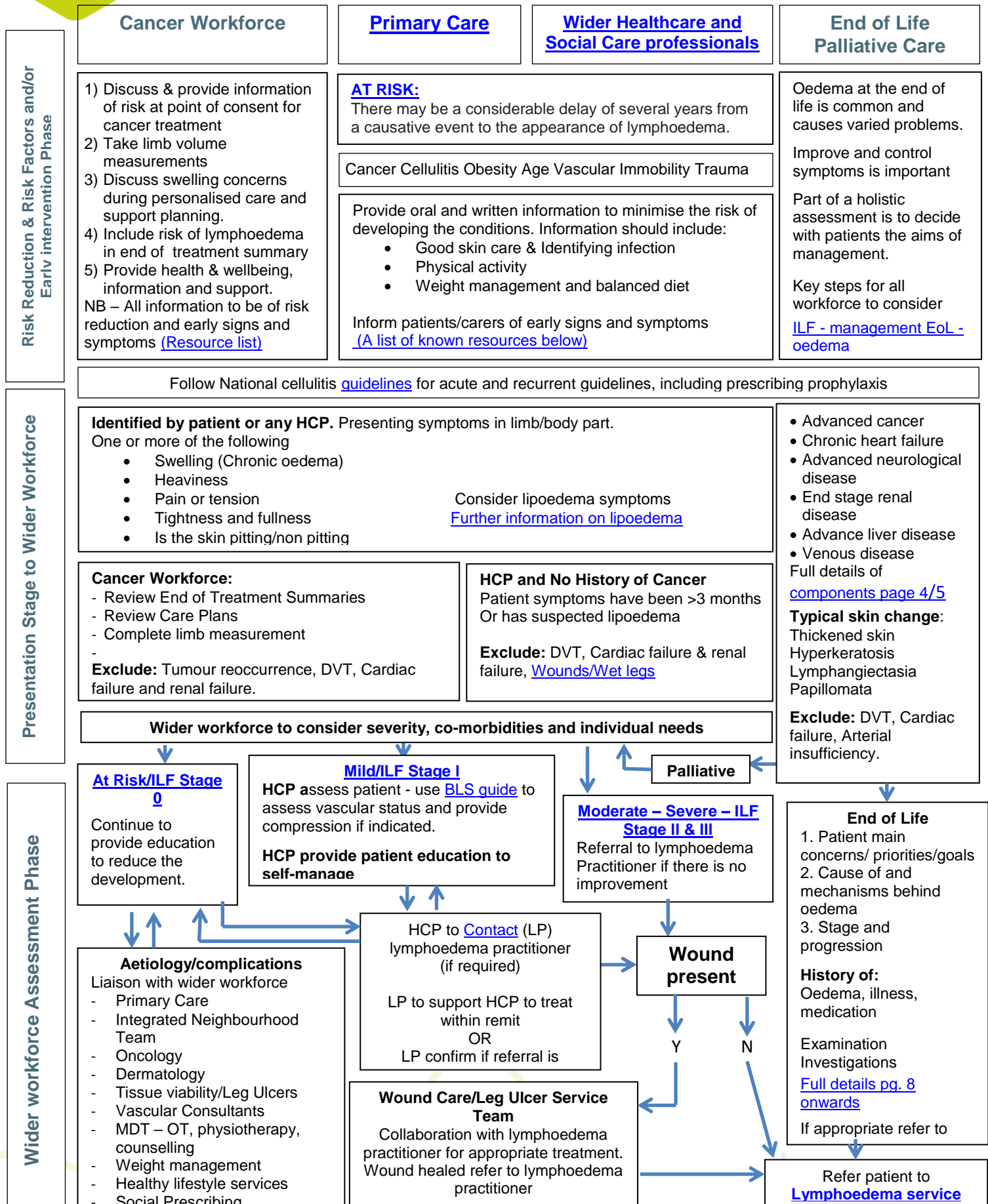
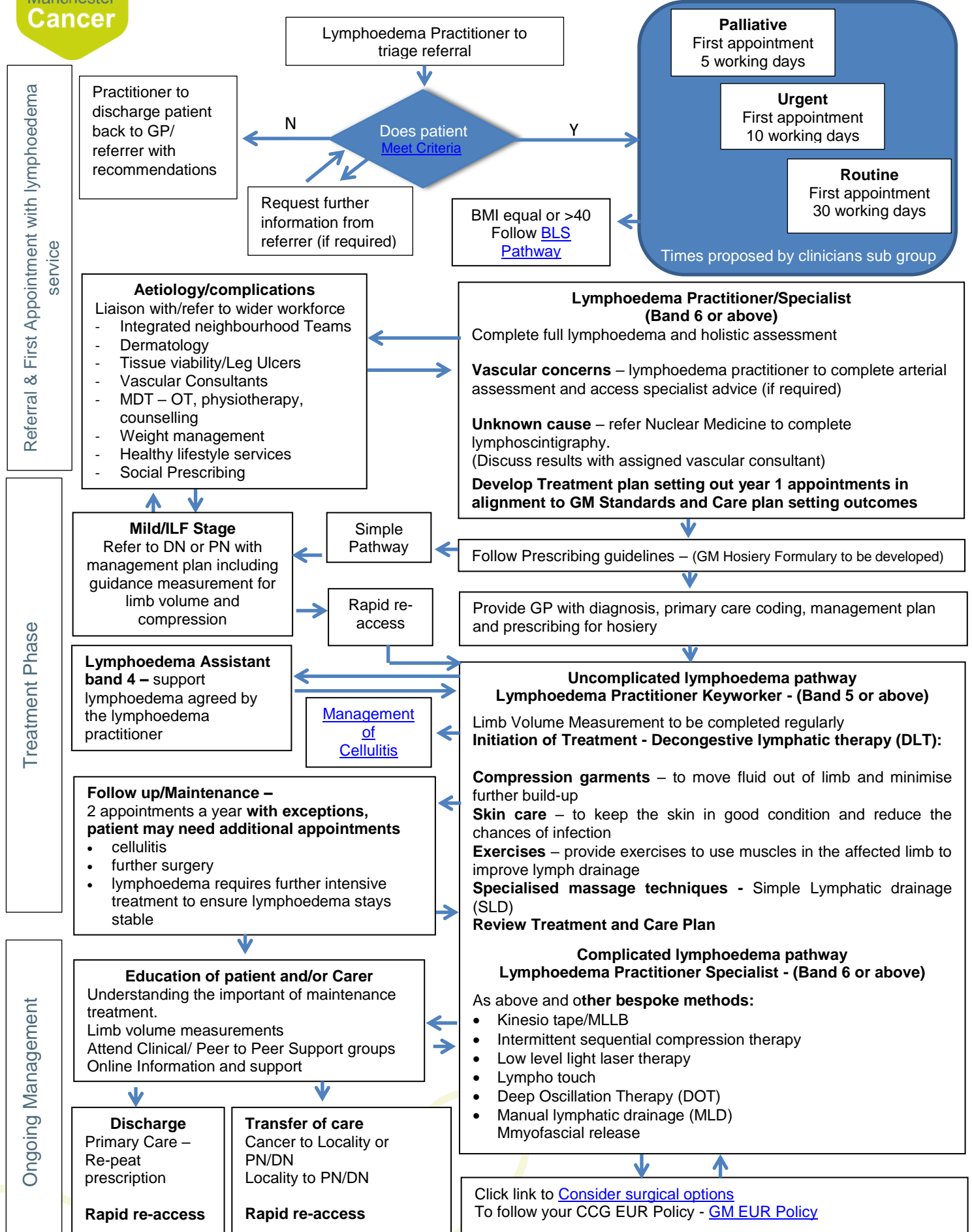


KEY: all words in [blue](#) and [underlined](#) are links, please click links to access further information





At Risk Factors

The below box has been sourced from the [ILF - best practice for the management of lymphoedema](#)

The true risk factor profile for lymphoedema is not known.

BOX 4 Risk factors for lymphoedema

Upper limb/trunk lymphoedema

- Surgery with axillary lymph node dissection, particularly if extensive breast or lymph node surgery
- Scar formation, fibrosis and radiodermatitis from postoperative axillary radiotherapy
- Radiotherapy to the breast, or to the axillary, internal mammary or subclavicular lymph nodes
- Drain/wound complications or infection
- **Cording (axillary web syndrome)**
- **Seroma** formation
- Advanced cancer
- Obesity
- Congenital predisposition
- Trauma in an 'at risk' arm (venepuncture, blood pressure measurement, injection)
- Chronic skin disorders and inflammation
- Hypertension
- Taxane chemotherapy
- Insertion of pacemaker
- Arteriovenous shunt for dialysis
- Air travel
- Living in or visiting a lymphatic filariasis endemic area

Lower limb lymphoedema

- Surgery with inguinal lymph node dissection
- Postoperative pelvic radiotherapy
- Recurrent soft tissue infection at the same site
- Obesity
- Varicose vein stripping and vein harvesting
- Genetic predisposition/family history of chronic oedema
- Advanced cancer
- Intrapelvic or intra-abdominal tumours that involve or directly compress lymphatic vessels
- Orthopaedic surgery
- Poor nutritional status
- Thrombophlebitis and chronic venous insufficiency, particularly post-thrombotic syndrome
- Any unresolved asymmetrical oedema
- Chronic skin disorders and inflammation
- Concurrent illnesses such as phlebitis, hyperthyroidism, kidney or cardiac disease
- Immobilisation and prolonged limb dependency
- Air travel
- Living in or visiting a lymphatic filariasis endemic area

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List of Resources

This is a large number of online resources available and these are a number of them as of 2020. Other resources can be found completing an online internet search.

Type of Information available	Background information	Link
All related lymphoedema	Lymphoedema Support Network is a registered charity and the UK's national patient support organisation for lymphoedema. 15 questions that have been answered using information produced and verified by accepted experts in their field and reflects current practice	Lymphoedema Support Network - Information about risk
	Lymphoedema Support Network has developed a web page with full information about lymphoedema	Lymphoedema Support Network - What is lymphoedema
	Lymphoedema Support Network has worked with prof. Vaughan Keeley, Consultant in Lymphoedema in how to recognise lymphoedema.	How healthcare professionals can recognise lymphoedema
	British Lymphology Society – Website Provides an education sections for both professionals and patients	BLS - website
	Legs Matters – this coalition is working together to increase awareness, understanding and action on lower leg and foot conditions among the public and healthcare professional. They	Legs Matter

	operate under the governance of the Tissue Viability Society, a registered charity.	
	Compton Care This hospice has produced a short video explaining the lymphatic system, lymphoedema and how to help.	Compton Hospice - lymphoedema-care video
	NHS lymphoedema Section on Overview, Causes, Diagnosis, Treatment and prevention	NHS - Lymphoedema
Cancer – general	Macmillan Cancer Support A webpage to explain lymphoedema as a possible impact of cancer.	Macmillan - impacts of cancer - lymphoedema
	Cancer Research UK 10 sections to explore including lots of links to additional resources.	Cancer Research UK - lymphoedema and cancer
Cancer – Breast	MFT Nightingale's rehabilitation website A collaboration between Macmillan and the renowned Nightingale Centre at Wythenshawe Hospital, MFT, to improve rehabilitation in breast cancer.	MFT Nightingale Rehabilitation website
	Breast Cancer Care Covers symptoms, causes, treatment and risk reduction of lymphoedema. Includes links with information on lymphatic system, surgery and radiology. Suggestions for weight management are also included.	Lymphoedema: causes, symptoms and treatment Breast Cancer Care
	Breast Cancer Care 5 videos on lymphoedema and breast cancer	Lymphoedema - Exercise classes and reducing your risk Breast Cancer Haven
	Breast Cancer Care A comprehensive overview of lymphoedema after breast cancer treatment, including reducing the risk, treating the lymphoedema. Provides links to help with the emotional mental health side to lymphoedema.	Lymphoedema: causes, symptoms and treatment Breast Cancer Care
Cancer – Head Neck	Macmillan – Late effects of head and neck Swelling of the face or neck' – a small section describing why you may be at greater risk A list side effects and directs to hyperlinks to 'lymphatic system' and 'lymphoedema' for a more in depth view point.	Late effects of head and neck cancer treatment - Macmillan Cancer Support
	Provides overview of 'what is lymphoedema' 'how to manage lymphoedema' as well as management and risk reduction factors.	Head and Neck Lymphoedema Hull University Teaching Hospitals NHS Trust
	Macmillan – Understanding cancer of the larynx (Voice box) Page101-in connection with after treatment.	Macmillan - understanding cancer of the larynx)
Cancer – Gynaecological	Hull University Teaching Hospital Provides an overview of symptoms and prevention of lymphoedema, not that much specifically for gynaecological cancers.	Lymphoedema Advice Leaflet for Gynaecological Cancer Patients Hull University Teaching Hospitals NHS Trust
	Macmillan - Understanding womb (endometrial) cancer -page69 discusses the increased risk due to pelvic radiotherapy-swelling in both legs.	Macmillan - understanding womb endometrial cancer
	Macmillan - understanding cancer of the vulva Pages 92- 94- its causes, development, reducing risk, protecting skin, infection -onto management- mentions compression garments others don't really go into this possible outcome and again signposts to 'understanding lymphoedema' and specialist clinics	Understanding cancer of the vulva

	Macmillan - understanding cervical cancer Page 64- provide information	Macmillan - understanding cervical cancer
Cancer – Sarcoma	Macmillan Leaflet - Understanding soft tissue sarcomas -page 85 & 86 provides information	Macmillan - understanding soft tissue sarcomas
	Sarcoma UK - leaflet providing a comprehensive overview of lymphoedema and sarcoma, including where to contact if you develop symptoms, what treatment options are available	https://sarcoma.org.uk/sites/default/files/lymphoedema.pdf
Cancer – Urology	Lymphoedema in urological cancer – reviews of the epidemiological, surgical and scientific literature of lymphoedema in urological cancer.	Lymphoedema in Urological Cancer - PubMed
Cancer - Skin	Macmillan - Understanding Skin Cancer booklet Page 46 briefly explains about swelling.	Macmillan - understanding skin cancer
	Macmillan – Understanding melanoma booklet – page 58 there is a small paragraph on reasons why could get lymphoedema.	Macmillan - understanding advanced melanoma booklet
Pelvic Radiotherapy late effects	Macmillan – Pelvic Radiotherapy Late Effects	Macmillan - pelvic radiotherapy late effects
Lipoedema	Lipoedema UK – this charity provide information for symptoms of lipoedema/lipo lymphoedema for patients and healthcare professionals	Lipoedema UK

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Signs and Symptoms

The below box has been sourced from the [ILF - best practice for the management of lymphoedema](#)

BOX 15 Indications for referral to a lymphoedema service

Special groups:

- swelling of unknown origin
- midline lymphoedema (head, neck, trunk, breast, genitalia)
- children with chronic oedema
- primary lymphoedema
- lymphoedema in family members

Factors complicating management:

- concomitant arterial disease
- concomitant diabetes mellitus
- concomitant venous insufficiency with ulceration
- long-term complications due to surgery or radiotherapy
- severe papillomatosis, hyperkeratosis or other chronic skin condition
- severe foot distortion/ bulbous toes
- sudden increase in pain or swelling of lymphoedematous site
- chylous reflux, eg chyluria, chyle-filled lymphangiectasia
- neuropathy
- functional, social or psychological factors
- obesity

Management difficulties:

- compression garment fitting problems
- failure to respond after three months' standard treatment
- wound that deteriorates or is unresponsive after three months' treatment
- recurrent cellulitis/erysipelas

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Limb Volume Measurement

This link [Measuring Change in Lymph volume for lymphoedema](#) treatment outcomes provides a paper with an overview of the practical approaches to assessing limb volume and calculating changes in limb volume after treatments in patients with unilateral lymphoedema

Guidance for Cancer workforce on measuring limbs before and after surgery

Lower limbs

With the limb in a relaxed position, measure circumference:

- of the foot (at the 5th metatarsal head)
- 2cm above the medial malleolus
- 10cm above the superior pole of the patella
- 10cm below the inferior pole of the patella repeat with the other limb

Upper limbs

With the limb in a supported position and the arm straight, measure circumference:

- around the dorsum of the hand (hand placed on a flat surface, fingers held together, tape placed at the base of the thumb joint in the web-space)
- around the wrist (2cm above the ulnar process)
- 10cm below the point of the elbow (olecranon process)
- 10cm above the olecranon process repeat with the other arm

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Severity/Staging of Lymphoedema

The severity of lymphoedema can also be based on the physical and psychosocial impact of the condition. Factors to consider include:

- tissue swelling – mild, moderate or severe; pitting or nonpitting
- skin condition – thickened, warty, bumpy, blistered, lymphorrhoeic, broken or ulcerated
- subcutaneous tissue changes – fatty/rubbery, nonpitting or hard
- shape change – normal or distorted
- frequency of cellulitis/erysipelas
- associated complications of internal organs, eg pleural fluid, chylous ascites
- movement and function – impairment of limb or general function
- psychosocial morbidity.

Lymphoedema is staged according to the International Society of Lymphoedema Staging as follows:

ISL stage 0	A subclinical state where swelling is not evident despite impaired lymph transport. This stage may exist for years before oedema becomes evident.
ISL stage I	This represents early onset of the condition where there is accumulation of tissue fluid that subsides with elevation. The oedema may be pitting at this stage.
ISL stage II	Limb elevation alone rarely reduces swelling and pitting is manifest.
ISL late stage II	There may or may not be pitting as tissue fibrosis is more evident.
ISL stage III	The tissue is hard (fibrotic) and pitting is absent. Skin changes such as thickening and hyperpigmentation Severity of unilateral limb lymphoedema

(BLS)

Mild	<20% excess limb volume
Moderate	20-40% excess limb volume
Severe	>40% excess limb volume

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Primary Care

Lymphoedema is a long term condition requiring primary care practitioner to support people and their carers to self-manage.

Gateway C – Late effects module including lymphoedema.

GP Notebook <http://gpnotebook.co.uk/homepage.cfm> provide summary of diagnosis and management in primary care

Lipoedema and Lymphoedema GP online training - [RCGP - online training](#)

Community Care

[Best Practice in the Community - Chronic Oedema](#)

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Surgical Options

There are 3 surgical approaches; lymphatic venous anastomosis (LVA), liposuction and lymph node transfer. This is a developing area and not widely available on the NHS.

Liposuction – [NICE Liposuction for chronic lymphoedema](#)

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Referral Criteria

Before referring rule out

- Recurrence of malignancy
- Deep Vein Thrombosis (DVT)
- Cardiac failure and renal failure

Referral Criteria

- Lipoedema
- Suspected primary lymphoedema
- Suspected secondary lymphoedema
- Chronic oedema in the limb/body part of >3 months and has one or more of the following:
 - Swelling
 - Heaviness
 - Pain or tension
 - Tightness and fullness
- Unknown cause of swelling.
- Unexplained oedema in those <35 years
- Sudden increase in swelling or pain.
- Recurrent cellulitis
- Hosiery fitting problems
- When obesity complicated the management of the condition
- Venous Ulcer patients with Lymphoedema. (Joint care with venous leg ulcer)
- Suspected secondary cancer – cancer related
 - Long term complications due to radiotherapy or surgery.

Urgent referral

- Midline oedema (head, neck, trunk or genitalia).
- Skin problems such as severe papillomatosis, hyperkeratosis, etc.
- Severe foot distortion/bulbous
- Lymphorrhea
- Palliative Care

Contact lymphoedema practitioner for guidance on

- Patients with post-operative swelling within 8 weeks of surgery

Exclusions:

- Untreated, recently diagnosed Deep Vein Thrombosis (DVT) (following vascular assessment)
- Patients with unstable cardiac/renal failure

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Access of Lymphoedema practitioners

		Patient access to service by CCG locality										Setting			Type of Lymphoedema seen							Severity of condition							Area Treated					Patients seen with BMI levels			Referral	
Service	Additional Notes	Bolton	Bury	HMR	Man- chester	Oldham	Salford	Stockport	Tameside & Glossop	Trafford	Wigan	Community/ Hospice Clinics	Home Visits	Hospital	Primary	Secondary - non cancer	Secondary Cancer	Palliative	Lipoedema	At Risk	Mild	Moderate	Complex	Very Complex	Arm	Leg	Face, head & neck	Breast or Chest	Genitals	Pelvic area	<35	>35	>40	Who can refer	How to refer			
Bolton Hospice																																						
Bury - Tissue Viability & Lymphoedema service																																		GP, DN, Podiatry	Referral form, via email or letter			
HMR INT Lymphoedema service	Does not provide intense treatment											2 clinic locations																										
North Manchester community lymphoedema service					north GPs only																						TBC							GP, COMMUNITY HEALTH	ON EMIS/NHS.NET			
Oldham - Tissue viability & lymphoedema service												1 Clinic location	If housebound																					Health care practitioner & GP	Via referral form or GP letter			
Salford Royal FT - Breast Cancer physio therapy																	Breast only																		Contact 0161 206 1193 salford.breastcare@nhs.net			
Salford Royal FT - Tissue Viability service							gap in service																												Anyone can refer			
Stockport	View St. Ann's Hospice																																					
Tameside & Glossop Community lymphoedema service												2 clinic locations																							Health professionals	T&G/CFT central booking system		
Willow Wood																																				No referrals		
Trafford	View St. Ann's Hospice																																					
Wigan & Leigh												1 Clinic location																							speciality nurses, DN, GP	email based referrals		
Multi Location																																						
St Ann's Hospice												2 Clinic locations																							All healthcare professionals. Patients previously known to the service can self refer back following discharge via telephone.	Self referral from patients by telephone, healthcare professionals using the St Ann's Hospice referral form available on it's website.		
Multi location - cancer related only																																						
Christie		satellite (1 day)			north - satellite (1 day)	Christie @ Oldham 1 day	Christie @ Salford staff	Satellite (1 day)																											All healthcare professionals and Patients self-refer if been back into service	Referral form on Christie Intranet or Clinical Letter. Accept from post or nhs.net emails only		
MFT Nightingale		MFT Nightgale Breast Cancer Patient only																Breast only																		GP, Consultant, CNS	Via letter or referral	

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Palliative Care/End of Life Guidance

Below are key steps to support a patient with chronic oedema

Approach	Date	
	Yes	No
1. Patient, carers and all staff should be made aware to avoid oedematous area for injections, venepuncture, subcutaneous infusions or applying blood-pressure cuff to prevent exacerbation of swelling and to reduce risk infection		
2. Following guidelines on skin care with the aim of keeping skin intact and supple		
3. Inform patient and carer in daily skin care. Skin care to be carried out by staff if patient/carer unable to		
4. Observe oedematous skin daily for signs of infection. If skin becomes hot, red or blistered, following your guidelines for the management of cellulitis guidelines		
5. Observe for lymphorrhoea, which is leakage of lymph fluid. Apply palliative bandaging to protect the skin, to prevent infection and to improve the patient's comfort		
6. Enable patients to exercise oedematous limb daily with the aim to use muscles, to activate muscle pump and to maintain flexibility in joints. Staff to carry out assisted or passive movements if patient is unable		
7. If patient wears an elasticated support garment, check daily that it is clean, comfortable and fits well. If patient's comfort is not maintained or improved by the above interventions, or if the patient has complex needs assist patient daily to apply compression garment and to remove at night.		
8. If require, refer to lymphoedema practitioner to review patient		

This list has been produced by St. Ann's Hospice

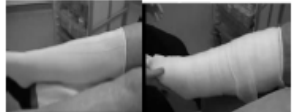


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Wounds and Wet Leg (lymphorrhoea)

Chronic Oedema 'Wet Leg' (Lymphorrhoea) Care Plan

Appendix 3

Lymphoedema Network
Wales




PATIENT NAME:		DATE OF BIRTH:	DISTRICT NURSE CONTACT:	DATE:
LEVEL 1 SUPPORT BANDAGING	GOAL	INSTRUCTIONS		PHOTOGRAPHS
<ul style="list-style-type: none"> One layer of blue/yellow line tubular stockinette 3 rolls of wool padding One layer of blue/yellow line tubular stockinette 	Stop leaking Provide comfort and support Reduce oedema	<ul style="list-style-type: none"> Wash leg in emollient/ointment/lotion and apply moisturising cream Apply wound dressings as per formulary One layer of blue/yellow line tubular stockinette 3 rolls of wool padding One layer of blue/yellow line tubular stockinette A DOPPLER IS NOT REQUIRED¹		
LEVEL 2 SUPPORT BANDAGING	GOAL	INSTRUCTIONS		PHOTOGRAPHS
<ul style="list-style-type: none"> One layer of blue/yellow line tubular stockinette 3 rolls of wool padding One layer of blue/yellow line tubular stockinette One Actico or short stretch 10cm x 6m 	Stop leaking Provide comfort and support Reduce oedema	<ul style="list-style-type: none"> As above then Apply Short Stretch Bandage inelastic (10cm width) in a spiral application from the base of the toes up the leg with a 50% overlap and stretch up to the knee Apply toe bandages if toes are swollen. See document 'Lymphoedema/Chronic Oedema Toe Bandaging Care Plan'. Or consider using toe caps A DOPPLER IS NOT REQUIRED¹		
LEVEL 3 COMPRESSION	GOAL	INSTRUCTIONS		PHOTOGRAPHS
<ul style="list-style-type: none"> One layer of blue/yellow line tubular stockinette 3 rolls of wool padding One layer of blue/yellow line tubular stockinette Two layers of Actico or short stretch 10cm x 6m 	Stop leaking Provide comfort and support Reduce oedema	<ul style="list-style-type: none"> As above Apply second layer of Short Stretch Bandage inelastic (10cm width) at full stretch in an opposite spiral application from the base of the toes up the leg with a 50% overlap up to the knee. Apply toe bandages if toes are swollen. See document 'Lymphoedema/Chronic Oedema Toe Bandaging Care Plan'. Or consider using toe caps ARTERIAL ASSESSMENT IS COMPLETED PRIOR TO COMPRESSION APPLICATION		

****REFER TO LOCAL LYMPHOEDEMA SERVICE FOR ONGOING ADVICE AND SUPPORT**

The Chronic Oedema 'Wet Leg' (Lymphorrhoea) Pathway

FINAL v1.2 02/05/17 12

Lymphoedema/Chronic Oedema Toe Bandaging Care Plan

PATIENT NAME:		DATE OF BIRTH:	THERAPIST NAME:	DATE:
PROBLEM	GOAL	INSTRUCTIONS		PHOTOGRAPHS
	To manage toe oedema Or To prevent toe oedema	<ul style="list-style-type: none"> Wash leg in emollient/ointment/lotion and apply moisturising cream _____ Apply 4cm bandage and anchor with a loose turn around the base of the forefoot. This bandage may be folded in half. <p>BANDAGES TYPES: HOSPIFORM / MOLLELAST/ K-BAND</p>		  
ADDITIONAL INFORMATION	AIMS	<ul style="list-style-type: none"> Take the bandage across the dorsum of the foot up to the big toe, wrap around the base of the toe nail – use light tension only While applying the bandage to each toe – ensure all skin is covered and up to the base of the toe nail as shown. Do not bandage the little toe as it rarely swells. See appropriate treatment plan to apply multi-layer Lymphoedema Bandaging if required or follow care plan for leg ulcer management as directed by the Tissue Viability Nurse/District Nurse. 		
	To apply toe bandages			

****REFER TO LOCAL LYMPHOEDEMA SERVICE FOR ONGOING ADVICE AND SUPPORT**