



# The 2<sup>nd</sup> All Ireland Lymphoedema Conference



Wednesday 13<sup>th</sup> November  
2019

An Grianán, Termonfeckin,  
County Louth





Feidhmeannacht na Seirbhíse Sláinte  
Health Service Executive

HSE

# LYMPHOEDEMA/LIPOEDEMA SERVICES

Kay Morris, MISCP, MSc HCM  
Project Manager

# Background

- A multi-disciplinary cross divisional HSE Lymphoedema Working Group was established in January 2016 to develop a model of care for lymphoedema services and national standards in relation to the provision of Lymphoedema garments based on best practice guidelines.

# Work so far

- The Model of Care has been signed off by the HSE
- The guideline for provision of compression garments is still in progress and in the final stages
- The tender process for compression garments is on going and will hopefully start in 2020

# National Lymphoedema Oversight Team

- The initial implementation of the model of care is being led by the National Lymphoedema Oversight Team which includes representation from primary care strategy and planning, primary care operations, National Cancer Control programme and acute services.
- A National Clinical Lead position is currently being interviewed for and should be in post by the end of the year.

# Summary of the MOC

- Service provision for lymphoedema/lipoedema is inadequate with significant gaps across the country and inequity of access for non-oncology related lymphoedema.
- Inconsistency in the prescribing and provision of compression garments
- Very limited lymphoedema/lipoedema education in healthcare-related undergraduate courses.

# Outline of the model of care

- The model of care for lymphoedema and lipoedema treatment recommends an integrated service between acute care and community care
- Acute services will provide screening and early detection of lymphoedema
- Primary care services will provide treatment services for all patients with lymphoedema regardless of what type of lymphoedema

# Primary Care

- On full implementation of the Model of Care each CHO will have a fulltime Lymphoedema Specialist Clinic (LSC) for assessment and intensive treatment.
- Maintenance will be provided in local community services for maintenance treatment and support with direct access back to the LSC



- Each clinic to have access/links to support services e.g. obesity clinics, vascular consultants, dermatology, psychology/counselling, genetics
- There will be one clinic with a speciality in paediatrics and follow up treatment will be available in the local clinics.

# Acute services

- Oncology services and other high risk areas will provide every patient with information and education on the risk of lymphoedema,
- There will be screening, early detection and treatment pathways

# Staffing

- Using calculated service demand there is a need for 56.2 WTEs nationally to provide a comprehensive service.
- There are currently 11.1 WTEs this would involve the recruitment of 45.1 additional staff, plus support staff.

# Current projects

- There is approval for;
  - One proof of concept Specialist Lymphoedema Clinic in Primary Care
  - One proof of concept early detection service in the Mater hospital
  - Development of Clinical Guidelines

# Early Detection- Mater Hospital

- Detection of subclinical lymphoedema
- Early intervention and monitoring during oncology treatment
- Education of risk and risk reduction
- Services to start in December 2019

**Outcome to reduce the incidence of lymphoedema in oncology patients**

# Primary Care project- Laois/Offaly

- A Specialist Lymphoedema Clinic requiring 2 full time lymphoedema therapists and 0.5 multitask attendant to treat all lymphoedema patients in that LHO area.
- Clinic to open in 2020

**Outcomes; Improved quality of life, reduced cellulitis/acute admissions/antibiotics/GP visits**

# Clinical guidelines

- In conjunction with the HSE NMPDU, HSCP and LNNI a clinical guideline development team is being established.
- The guidelines will inform the education plan for all aspects of lymphoedema management.
- There are UK clinical guidelines for Lipoedema 2018

# Next steps

- There is a 3 year plan for the overall implementation of the Model of Care for which a funding request will be submitted in the 2020 Estimates process



# Information

- Model of Care for lymphoedema and lipoedema
  - [www.hse.ie/publications](http://www.hse.ie/publications)
- Lipoedema Guidelines
  - [www.wounds-uk.com](http://www.wounds-uk.com)

# Connecting via Yammer

November 2019

# What is Yammer?

**Yammer is an internal communications tool connecting staff across the HSE**



Building a  
Better Health  
Service

Seirbhís Sláinte  
Níos Fearr  
á Forbairt

# How can I use Yammer?

## 1. Collaboration

Join and create groups

## 2. Information sharing

Ask & answer questions

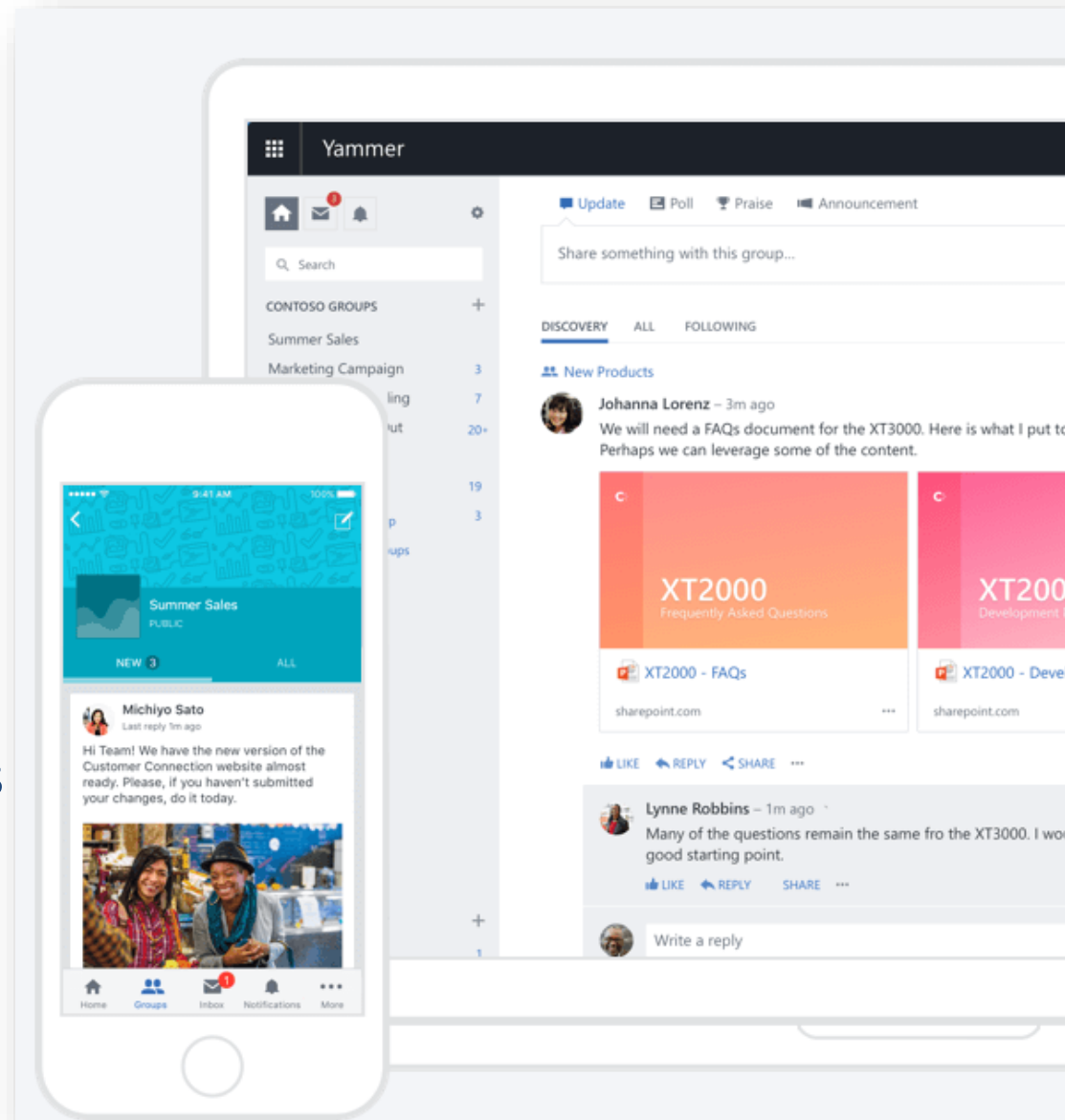
## 3. Keep up to date

Post and read updates

## 4. Share and search

Add docs, photos and files

## 5. Showcase great work & achievements



*Collaborate in a  
community to  
share ideas,  
and solve  
problems in half  
the time.*



Building a  
Better Health  
Service

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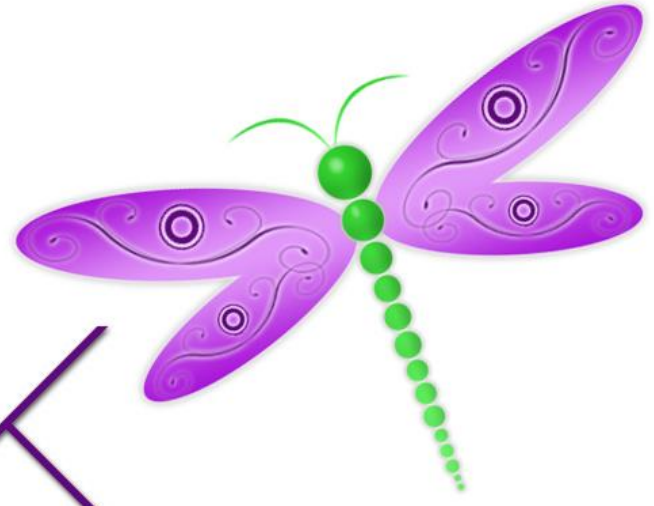
# Lymphoedema Network

- To Join Yammer go to the Yammer web page and search HSE.
- Enter you HSE email address and you will be asked to verify
- New group Lymphoedema Network



THANK

YOU . . .







# Obesity related chronic lymphoedema like swelling – overview & research



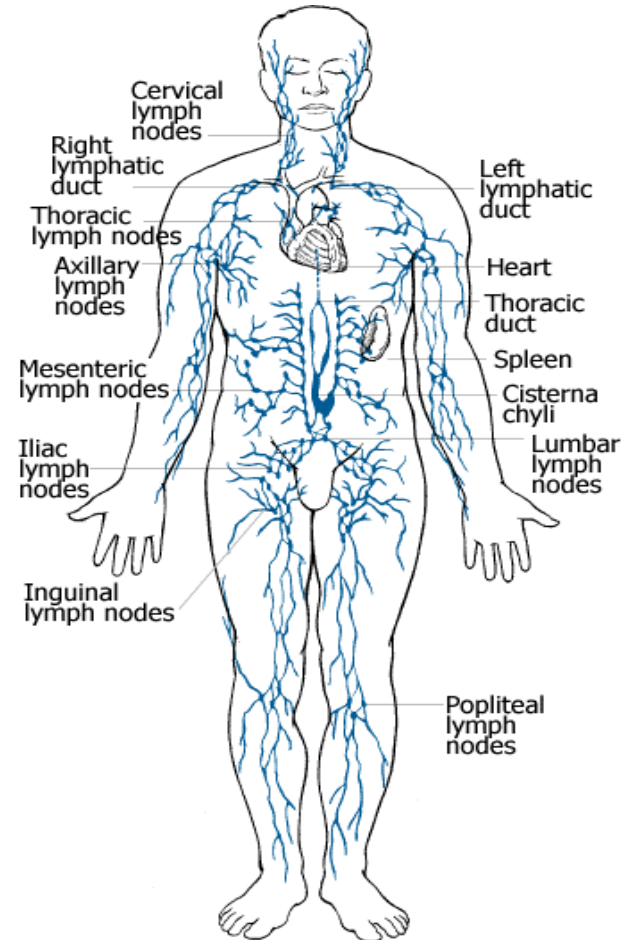
13<sup>th</sup> November 2019  
Emer O' Malley  
Senior Physiotherapist  
Weight Management Service  
St. Columcille's Hospital  
Loughlinstown, Co. Dublin



# Outline



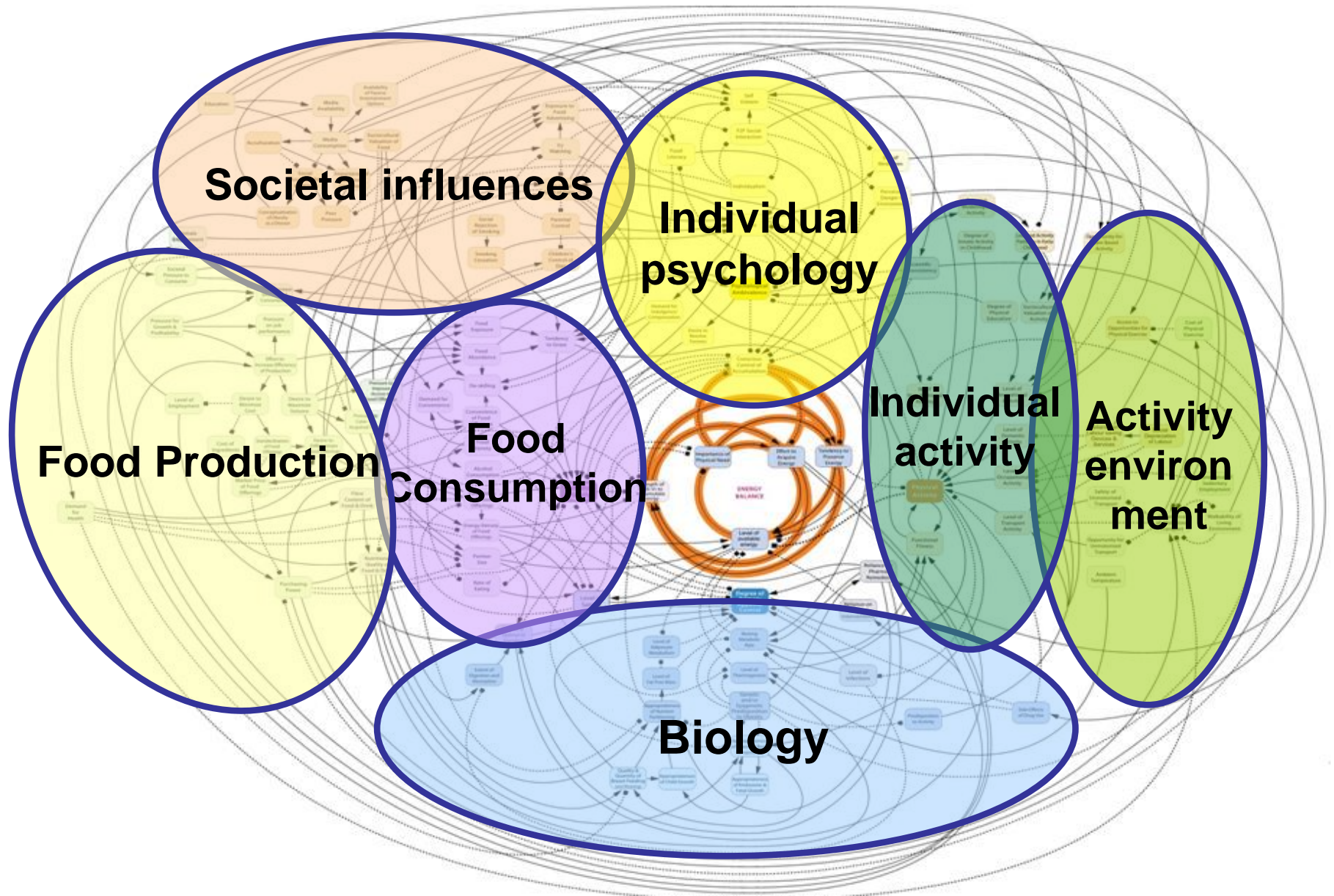
- Obesity - Background
- Lymphoedema and obesity
- Cause, Prevalence & Impact
- WMS - Our journey
- Assessment
- Referral options
- ORCLS treatment & pathway
- Case studies: Trial and error
- Research & our learning
- Weight Management Strategies
- The 5As approach
- Conclusion & References



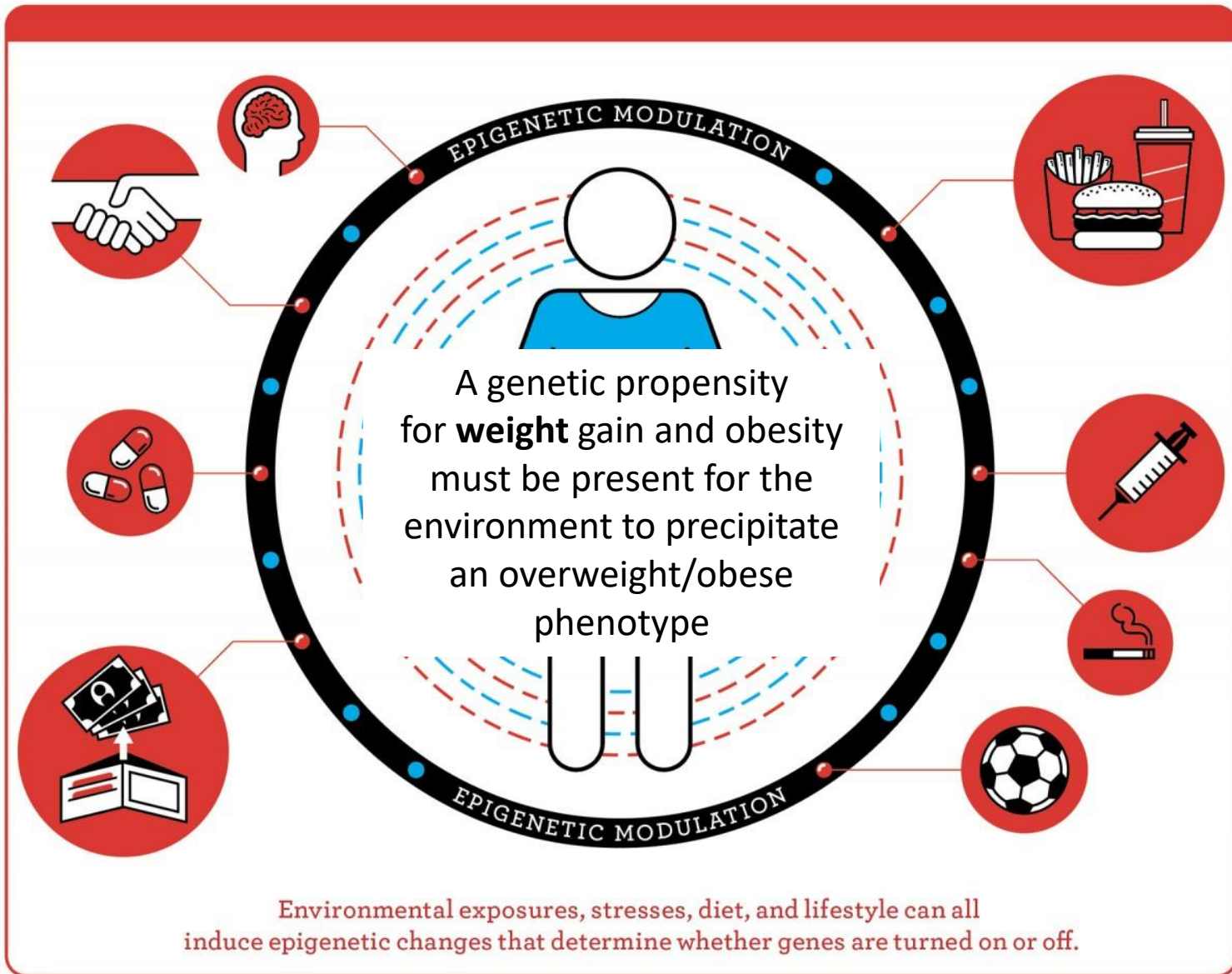
# Background

- “6 out of 10 Irish adults are OW or obese”  
(NANS, 2011)
- BMI > 40 kg/m<sup>2</sup> = 1.9% of Irish adults (Flynn, 2011)
- Highest average BMI in Europe – OW (Lancet 2016)
- €1.1 billion in healthcare cost (Perry, 2012)
- 85% ↑ in mortality, 8x ↑ risk of poor physical function, reduced QOL (Adams 2006, Alley 2007, Carlin 2006)

# Drivers of the obesity epidemic

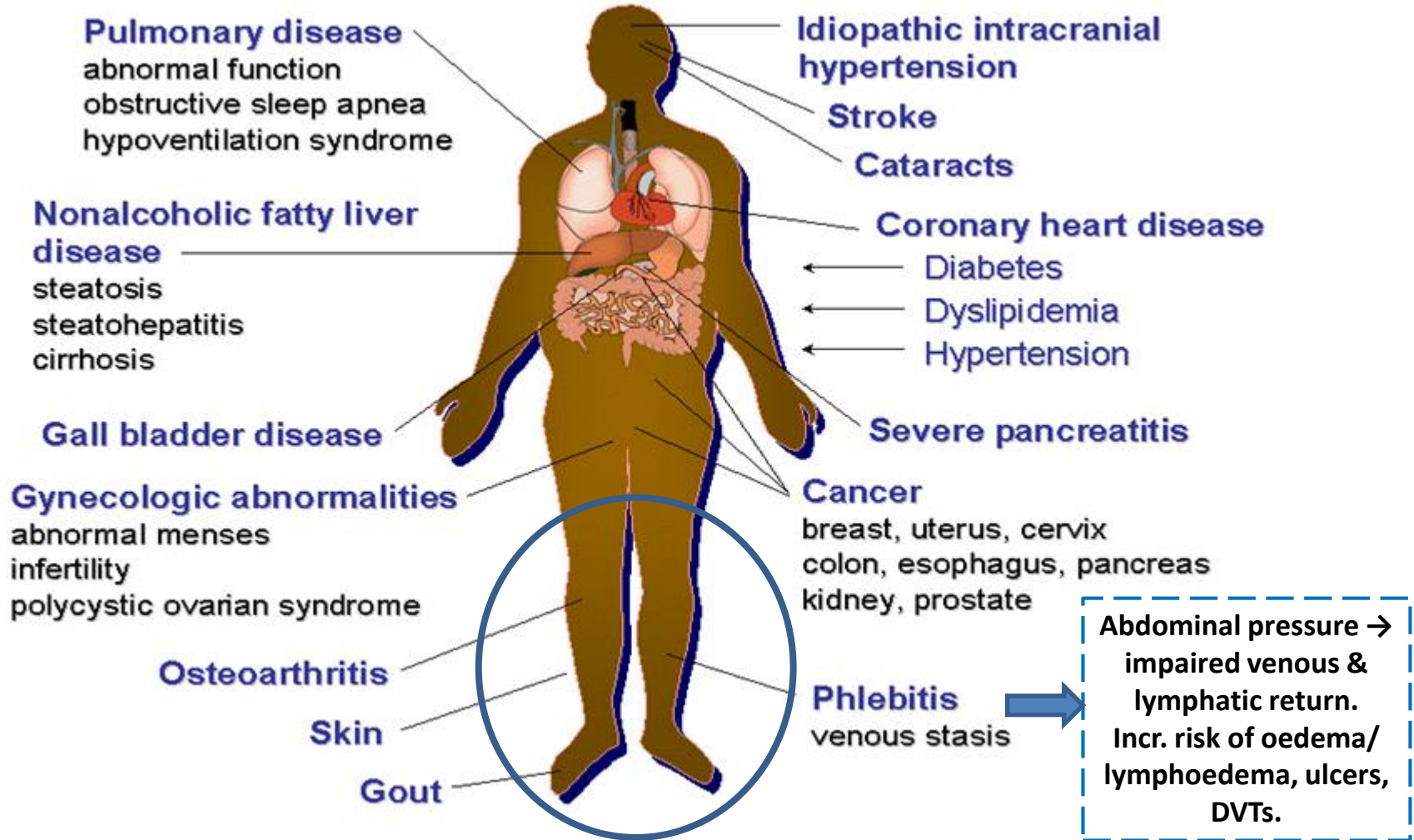


# Epigenetics & Environment





# Obesity related complications



# Lymphoedema and obesity: Is there a link?

- Risk factor: Obesity & post-op weight gain
- **Severe obesity** can lead to impaired lymphatic function **without Sx** or **injury**
- BMI threshold for LL lymphatic dysfunction
- Many have **normal lymphoscintigraphy**
- **Cause:** Multifactorial, ? Overwhelmed lymphatic system, external compression of lymphatics by adipose tissues or direct injury to the lymphatic endothelium.

# Lymphoedema Prevalence

- 5 million Americans UL/LLs, 200million worldwide (Mehrrara and Greene, 2014)
- ~15,000 people in Ireland
- Challenge of diagnosis
- Incidence: 74% in severe obesity (Fife & Carter et al, 2008)  
“Epidemic in plain sight”
- 1 in 3 weight management patients suffer with swollen legs (O’ Malley et al, 2015)



# Impact of swelling & skin changes

- Reduced mobility & pain
- Increased risk of cellulitis
- Irregular skin folds
- Lymphorrhoea
- Hyperkeratosis/Papillomatosis



- Isolation & reduced QoL
- Physical activity & increase challenge of weight management



(Obesity Canada image bank)



# Our journey...

- Identifying a problem
- Review of referral options
- Rx: A lot of trial and error!
- Research attempts
- Patient access, challenges and consultation



*Q J Med* 2015; 108:183–187  
doi:10.1093/qjmed/hcu155 Advance Access Publication 1 August 2014

## Obesity-related chronic lymphoedema-like swelling and physical function

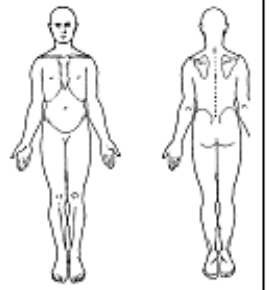
E. O'MALLEY<sup>1</sup>, T. AHERN<sup>1,2,3</sup>, C. DUNLEVY<sup>1</sup>, C. LEHANE<sup>2</sup>, B. KIRBY<sup>3</sup> and D. O'SHEA<sup>1,2</sup>

From the <sup>1</sup>Weight Management Service, St Columcille's Hospital, Loughlinstown, County Dublin, <sup>2</sup>Obesity Research Group and <sup>3</sup>Dermatology Research Group, St Vincent's University Hospital, Elm Park, Dublin 4, Ireland






# Physiotherapy Assessment

PHYSIOTHERAPY WEIGHT MANAGEMENT PROGRAMME								PHYSIOTHERAPY WEIGHT MANAGEMENT PROGRAMME								
Initial assessment date: / / 2017				Patient ID Sticker				Patient ID Sticker								
Referral Hx:								Musculoskeletal:								
Surgical Preference: <b>Surgical Preference</b>								Low back pain:    Knee Pain:    Other:								
Weight History:								Hx & Duration:								
Previous Exercise	Freq	Inten	Time/day	Start Date	Stopped	Reason Stopped	Total Mins/Week	Type:	<b>Musculoskeletal Ax</b>							
Currently Type (2)								Initial								
								Frequency								
Exercise Equip at Home? Y/N Type								Repeat								
Readiness to								Frequency								
Past medical Hx:								Aggr:								
Type 2 DM Y/N    CVD								Enter:								
Resp. Dx Y/N    Tpn																
Cigs:																
Surgical Hx/Invest																
Social Hx:								Have you Swollen Legs?: Y / N    Duration: _____								
Marital Status:								Increased Girth in PM: Y / N    Y / N    Skin Changes: Y / N    Y / N    Ulcer/Cellulitis: Y / N    Y / N								
Empk								<b>OBJECTIVE MEASURES</b>								
Occu								<b>Initial assessment</b>				<b>Repeat assessment</b>				
Comm								Max HR (75%)    BPM    / / 2019				/ /				
Longest sedentary time:								Ankle Circ. 10cm super medial malleolus				Left:    cm    Right:    cm    Left:    cm    Right:    cm				
Screen Time								Cardiorespiratory health, Balance, Strength & function - TUAG, 90 sec step test, 6MWT								
Work: (hrs/wk)								Sleep & OSA: ESS & STOPBang								
Leisure: (hrs/wk)								Social HX								
In Bed: (hrs/wk)								Screen Time								
Outside H								QOL, Falls, ADLs								
Days:								PARQ								
QoL (0 Poor - 10 Excellent)								Recovery (Start at Sitting)								
Continece: Unin								Walk Test (6MWT)								
Fasc								Modified Borg    SOB (0-10)								
Self Care Problem								Lowest SpO2								
ADL Other:								Recovery (Start at								
Trips or Falls (Last year): Number:    Number:								Rx: FITT principles								
1: Heart Hx: Y/N								Initial goal: Target:								
2: CP PA: Y/N								Pedometer: Discus								
3: CP No PA (1/month): Y/N								Goal 1:								
4: Balance & Dizzy: Y/N								Goal 2:								





# Treatment options

- Monitored exercise programmes can decrease the severity of lymphoedema  (Kwan et al, 2011)
- Weight management programmes including dietetic support & bariatric surgery may decrease the rates or severity of lymphoedema   
(Mehrrara and Greene, 2014)
- Best practice for the management of Lymphoedema (2004): Ax, Skin care, MLD, Multilayer bandaging, Exercise & Elevation, Garments 



# Slow beginnings & challenges

- Identifying the problem
- Discussing the problem
- Practical application
- Training & resources
- Products
  - Length
  - Cost (Bandages only)
- Physical challenges
  - LL weight
  - Patient access (all Ireland)
- Compression garments



# ORCLLS pathway

## Subjective Assessment:

**1:** Swollen legs/Incr. girth in pm **2:** Skin changes **3:** Cellulitis/Ulcers

## Objective Assessment:

**1:** Ankle circumference measurement, **2:** Skin Integrity, **3:** Distal pulses

**No signs of ORCLLS**

**Mild:** ACM <35cm, absence of other S&S

**Moderate:** ACM <35cm presence of other S&S or ≥35cm

**Severe:** ACM >40cm, +/- other S&S

**Clinical decision making**

**Education (All)**

**Compression Tx:**  
Suitability,  
Readiness, Funding

**Referral:**  
Above Knee,  
Vascular service

# Education & resources



## Swollen Legs



 1 in 3 weight management patients suffer with swollen legs. It can cause pain, make moving harder, and lead to skin infections.

Can my leg swelling be treated?

4 Steps to better management:

<b>Skin care</b>	Moisturise daily to keep skin supple
<b>Exercise</b>	Move regularly, take lots of little walks
<b>Elevation</b>	At night-time raise your feet up on pillows
<b>Compression</b>	Wearing flat knit compression can really help

 Off the shelf

 Made to measure

 FarrowWrap

← →



### Lymphoedema IRELAND

Free phone helpline:  
1800 200 700  
[www.lymphireland.com](http://www.lymphireland.com)

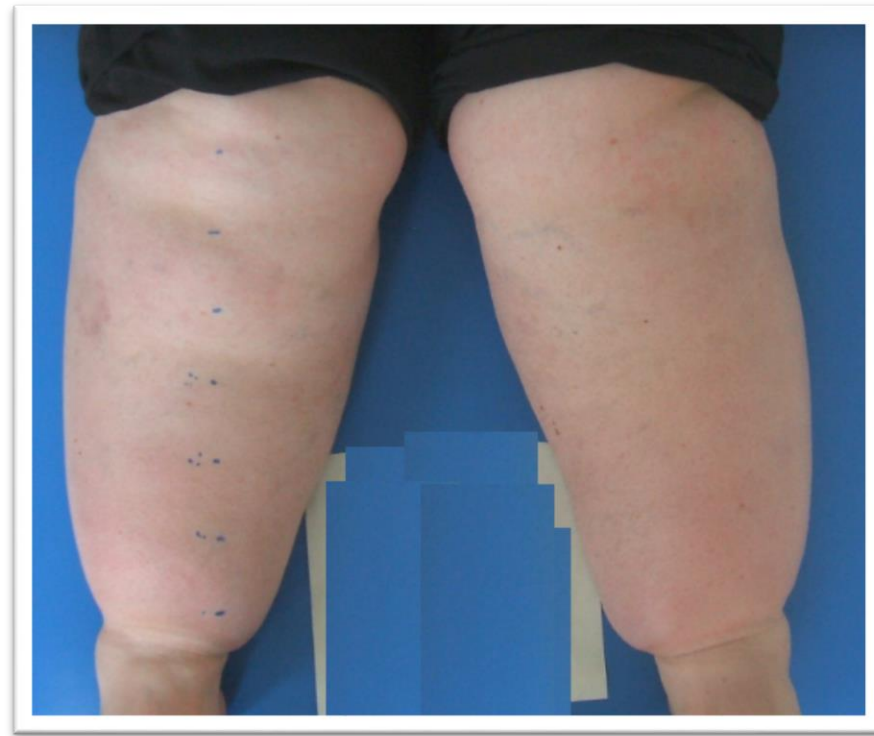
manual lymph drainage



### MLO IRELAND



# Common presentation & Case Studies:



Increased LL volume  
 Primarily below knee  
 Reverse shouldering  
 Colour changes  
 Hx of cellulitis  
 Mobility difficulty/Decr. PALs



Education  
 Bandaging  
 +/- 1-2days/wk  
 Dry weight  
 Measure

## Measurement & Compression

<b>Name:</b>				
<b>Date:</b> /                    / 20				
	<b>No.</b>	<b>Left:</b>		<b>Right:</b>
Dorsal Pedis Pulse		Y / N		Y / N
Posterior Tibialis Pulse		Y / N		Y / N
Dorsum		Dorsum		
4 cm	1	4 cm	1	
8 cm	2	8 cm	2	
12 cm	3	12 cm	3	
16 cm	4	16 cm	4	
20 cm	5	20 cm	5	
24 cm	6	24 cm	6	
28 cm	7	28 cm	7	
32 cm	8	32 cm	8	
36 cm	9	36 cm	9	
40 cm	10	40 cm	10	

**JOBST® Elvarex® Custom-Fit Lower Limb Order Form FAX**

ORDER TO CUSTOMER SERVICES ON: 01 885 5558

Date: \_\_\_\_\_ Purchase Order No.: \_\_\_\_\_ Patient Name: \_\_\_\_\_

Measured by: \_\_\_\_\_ Measured on: \_\_\_\_\_

Delivery Address: \_\_\_\_\_ Health Address: \_\_\_\_\_

Order No.: \_\_\_\_\_

Compression Class	Quantity	Left	Right	Body Bandage
COL1 (18-21mmHg)				
COL2 (23-30mmHg)				
COL3 (34-40mmHg)				
COL4 (40-45mmHg)				
COL5 (50-60mmHg)				

Options:  
 Body bandage  
 Adjustable webbing  
 Fly for men  
 Subst for men  
 Open palm  
 No internal gasket  
 Silicone  
 Silicone placed  
 No silicone band  
 Zipper with strap  
 Silk gasket  
 T-strap (2 or 3 - see note)  
 Heel pad (optional)  
 No horizontal seam  
 No vertical seam

Style:  
 AC knee high  
 AC thigh high  
 AC1 Waist attachment left  
 AC1 Waist attachment right  
 AC1 Waist attachment pair  
 AT Thighs  
 AT Thighs Top  
 AT Waist Top

Foot Styles:  
 Open toe  
 Closed toe  
 Slant foot  
 Straight foot

Foot Length: \_\_\_\_\_ Length for closed toe: \_\_\_\_\_  
 Length for open toe: \_\_\_\_\_ Length medial: \_\_\_\_\_  
 Length for closed toe: \_\_\_\_\_ Length lateral: \_\_\_\_\_

Quantity:  
 Left  
 Right  
 AT Thighs

Options:  
 Adjustable webbing  
 Open palm  
 Silicone placed  
 2.5cm on top (A-D only)  
 5.0cm on top  
 Silk Padded  
 T-strap



# Compression therapy & MDT approach

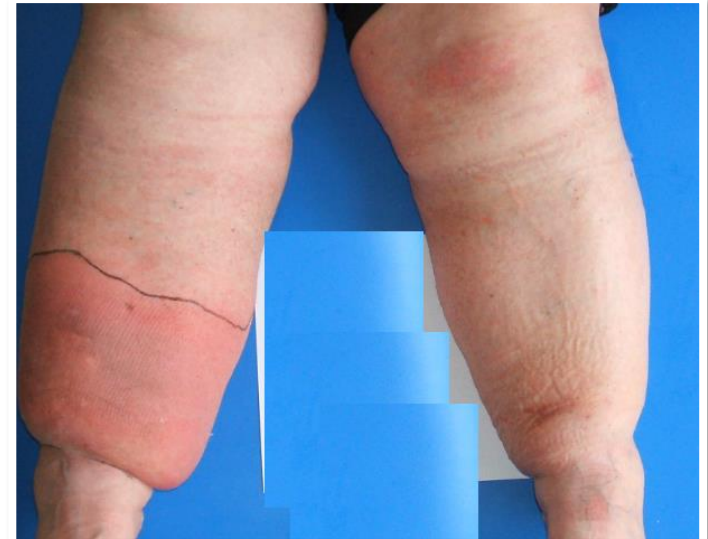
- 36 yr old male
- Increased LL volume
- T2 Diabetes
- Incr. isolation/decr. PALs
- Conservative programme & ORCLS mgt
- On BSx list x 4yrs
- DM & ORCLS resolution



# Holistic approach:

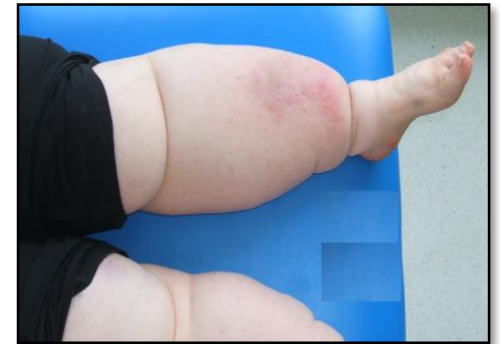
## Conservative programme & bariatric Sx

- 46 yr old female
- Psoriasis, dog bite & cellulitis
- Lots of trial & error
- Behaviour change support
- Incr. PALs & had BSx
- No longer requiring garments



# Challenges & adaptations

- 52yo ♀, LL swelling & cellulitis hx
- <1000steps/day, SOBOE/pain mobilising
- Access difficulties & weight bias
- Multiple garment failures: OTS/MTM
- Course of bandaging/compression to knee
- Now 4000steps/day, travelling, teaching & presenting at obesity conferences
- Self-managing, occ. re-measurement, purchases own stockings



# Wound management

- Referred from diabetes service
- Importance of MDT approach
- Ongoing vascular and nursing support & co-ordination
- Behaviour change support





# Complex case

- 56 yo male, in-patient stay
- Renal failure, sepsis & rhabdomyolysis
- Compression therapy & garments provided
- Declined BSx
- Attended NRH for rehab progression
- Struggled with maintaining lifestyle changes & progressive deterioration

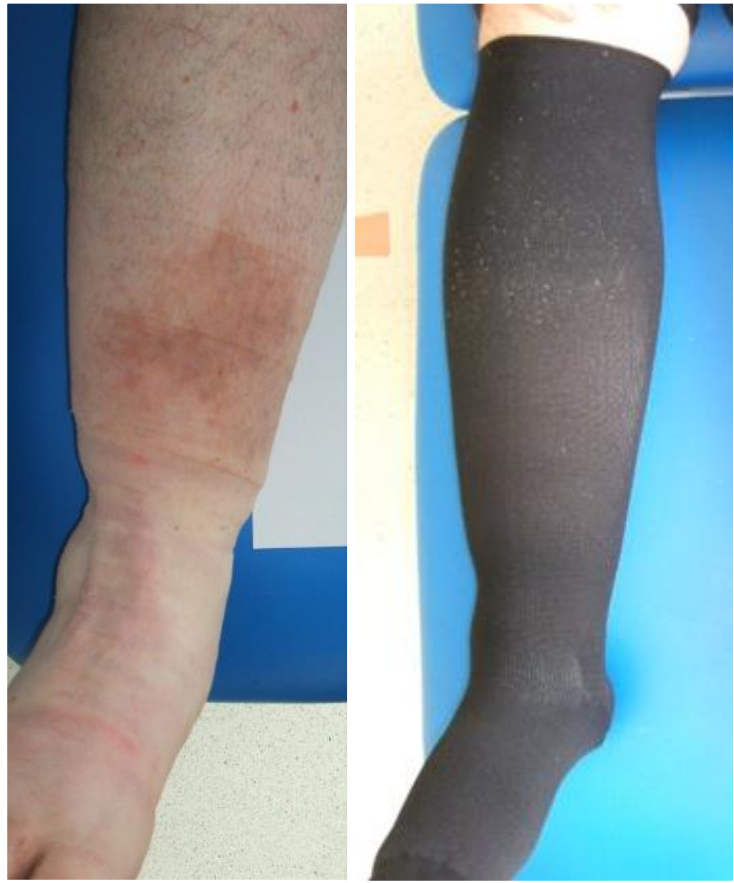


# ORCLSS - Post bariatric surgery

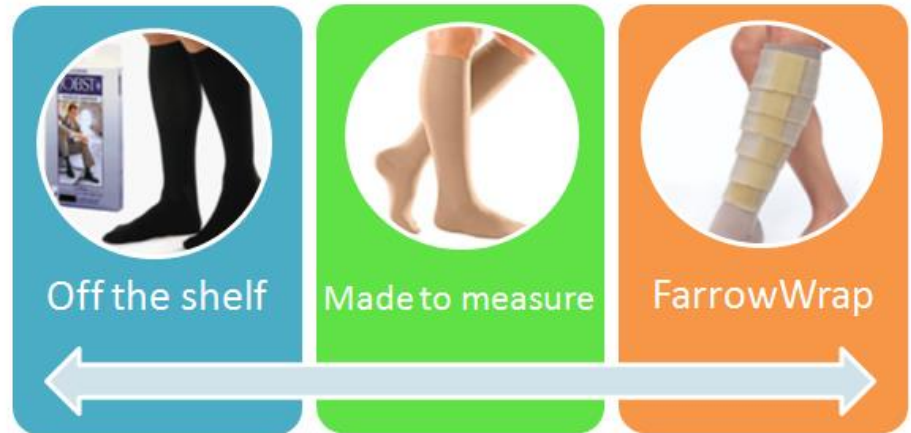
- 44yr old male
- **Initial appt:** 243Kg, BMI: 86Kg/m<sup>2</sup>
- MDT programme & Roux-en-Y
- **7yrs later:** 130Kg, BMI: 46Kg/m<sup>2</sup>
- Wound mgt, compression



# Compression garments options



Ongoing modifications



**Off the shelf:** Ready to wear, flat knit, class 3.  
Uniphar, JOBST, Mediven, Seronova, Cost: €60 - 74

**Made to measure:**  
Measured to fit, flat knit, T-heel & silicone band  
Compression class 3  
Cost: Pair €240 (June '19), Healthcare21 (HC21)

**FarrowWrap:**  
Measured to fit, Velcro straps  
Cost: Pair €250 (June '19), HC21  
Available in beige, black, dark blue, grey, dark brown

# What we have learned

- **Additional access & treatment bias**
- Importance of readiness & MDT support
- Holistic approach – collaborative Ax & Rx planning
- **Practical application:**
  - Feet often unaffected
  - Utilisation of gastrocnemius as a shelf
  - Can be applied weekly
  - Mobility improves very quickly/easier to apply
- **Compression garments**
  - A to D measurements
  - Utilise T-heel & inner silicone band
  - Reduce by 1-2cms
  - Modify & adapt for 2<sup>nd</sup> pair
  - Guidance with application





# Research

*Q J Med* 2015; **108**:183–187

doi:10.1093/qjmed/hcu155 Advance Access Publication 1 August 2014

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## **Obesity-related chronic lymphoedema-like swelling and physical function**

E. O'MALLEY<sup>1</sup>, T. AHERN<sup>1,2,3</sup>, C. DUNLEVY<sup>1</sup>, C. LEHANE<sup>2</sup>, B. KIRBY<sup>3</sup> and D. O'SHEA<sup>1,2</sup>

*From the <sup>1</sup>Weight Management Service, St Columcille's Hospital, Loughlinstown, County Dublin, <sup>2</sup>Obesity Research Group and <sup>3</sup>Dermatology Research Group, St Vincent's University Hospital, Elm Park, Dublin 4, Ireland*

**Aim:** To determine the relationship between the presence of lymphoedema-like swelling and physical function in the severely obese.

# Methodology & Results

- **Methodology:**

Severe obesity, presence of ORCLLS, ACM, 50 step test, 500m walk

- **Results:**

n=330, 33% ♂, Age: 43.4yrs & BMI of 51.7kg/m<sup>2</sup>.

ORCLLS (n = 108) ~1/3

- Hx of cellulitis & VTE was more common (RR 6.16 & 3.86)
- Higher ACM (35 vs. 32.4cm)
- Slower step speed (0.40 vs. 0.43steps/s)
- Slower walking speed (0.97 vs. 1.08 m/s) P < 0.05

# Participant characteristics

**Table 1** Participant characteristics

Parameter	N	ORCLLS present (n= 102)	ORCLLS absent (n= 222)	All participants (n= 324)	P-value <sup>a</sup>	P-value <sup>b</sup>	P-value <sup>c</sup>
Age (years)	324	46.4 ± 11.3	41.7 ± 12.8	43.2 ± 12.5	0.002		
BMI (kg/m <sup>2</sup> )	324	54.1 ± 9.5	50.4 ± 7.6	51.6 ± 8.4	<0.001		
Male	324	36 (35.3)	69 (31.1)	105 (32.4)	0.452		
Diabetes	314	24 (24.5)	38 (17.6)	62 (19.7)	0.155	0.433	
Chronic illness	324	80 (78.4)	163 (73.4)	243 (75.0)	0.334	0.728	
→ Prior VTE	324	13 (12.7)	8 (3.6)	21 (6.5)	0.002	<b>0.031</b>	<b>0.034</b>
→ Prior cellulitis	319	36 (35.3)	13 (6.0)	49 (15.4)	<0.001	<b>&lt;0.001</b>	<b>&lt;0.001</b>
→ LL symptoms	324	93 (91.2)	113 (50.9)	206 (63.6)	<0.001	<b>&lt;0.001</b>	<b>&lt;0.001</b>
→ SC (cm)	323	35.6 ± 7.1	32.1 ± 4.8	33.2 ± .9	<0.001	<b>&lt;0.001</b>	<b>0.009</b>
→ SC ≥ 35 cm	323	46 (45.5)	57 (25.7)	103 (31.9)	<0.001	<b>0.009</b>	<b>0.009</b>
→ Step speed (step/s)	310	0.38 ± 0.12	0.44 ± 0.10	0.42 ± 0.11	<0.001	<b>0.008</b>	<b>0.023</b>
Fifty steps completed	313	49 (50.0)	154 (71.6)	203 (64.9)	<0.001	0.072	0.074
→ Completer step speed (steps/s)	203	0.44 ± 0.09	0.47 ± 0.09	0.46 ± 0.09	0.019	0.151	0.243
→ Walking speed (m/s)	311	0.89 ± 0.38	1.13 ± 0.30	1.05 ± 0.34	<0.001	<b>0.002</b>	<b>0.003</b>
Able to walk 500 m	316	67 (67.7)	187 (86.2)	254 (80.4)	<0.001	0.157	0.175
→ Completer walking speed (m/s)	254	1.09 ± 0.23	1.20 ± 0.22	1.17 ± 0.22	0.001	<b>0.013</b>	<b>0.035</b>
→ Activity level (min/week)	222	65.9 ± 108.6	120.3 ± 163.8	104.4 ± 151.6	0.015	0.053	<b>0.027</b>

VTE: Venous Thromboembolism, SC: Supramalleolar circumference

# Weight Mgt & ORCLLS: Past to the present

*“Nurses are committed to developing patient-focussed treatment plans to address chronic oedema, but lack of compliance with exercise and weight reduction is causing frustration and disillusionment” (Todd, 2009)*

*“Management of the lymphedema requires that the obesity be addressed in a frank and supportive way. Many exhibit a strong element of denial regarding the disease of obesity. Treatment must be linked to the treatment of obesity for long-term success”.*

*“When the clinician and patient develop a collaborative approach to care, lymphedema in morbidly obese patients can be managed with good results”.*

*(Fife & Carter, 2008)*

# Realistic expectations: Weight change

## Overall

N=65

Mean  $\pm$  SD:  $-4.3 \pm 5.2\%$   
( $-6.3 \pm 7.8$  kg)

Range:  $-21.2$  to  $5.3\%$   
( $-37$  to  $9.1$ kg)

## 'Weight gainers'

N=2 (3.1%)

$+5.2 \pm 0.3\%$

$+7.6 \pm 2.2$ kg

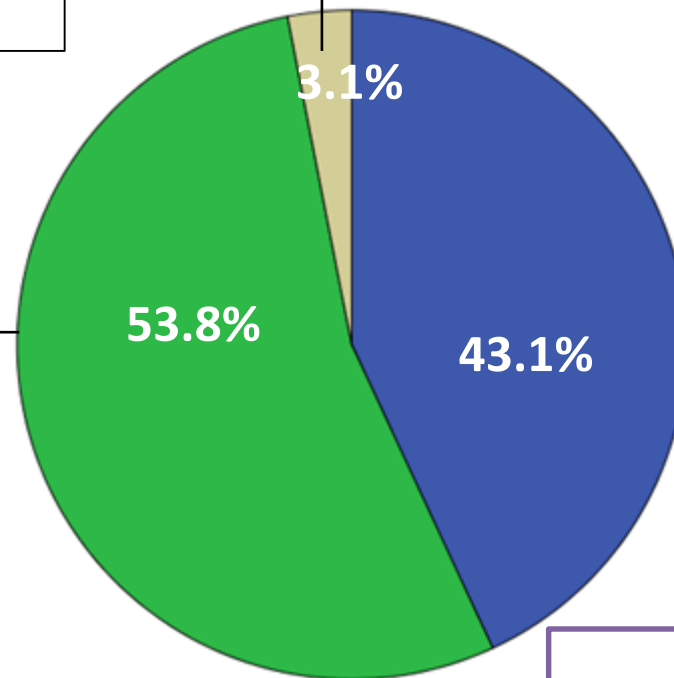
“Focus on best weight”

## 'Weight stable'

N=35 (53.8%)

$-1.1 \pm 2.2\%$

$-1.8 \pm 3.2$ kg



3.1%

53.8%

43.1%

Chronic relapsing disease...  
Realistic expectations...5-10%

## Significant changes:

ACM, PALs, Physical function:  
TUAG, Step no, Gait distance & QOL

# Key considerations in obesity



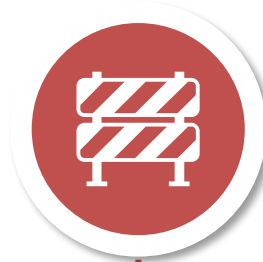
**Obesity is a chronic condition**

Think sustainable strategies



**Management is about improving health & well-being – not just the number on the scales**

Modest ↓ in weight = significant ↑ health



**Intervention means addressing root causes & removing roadblocks**

Explore & support



**Success is different for every individual**

Weight / physical or mental health gains

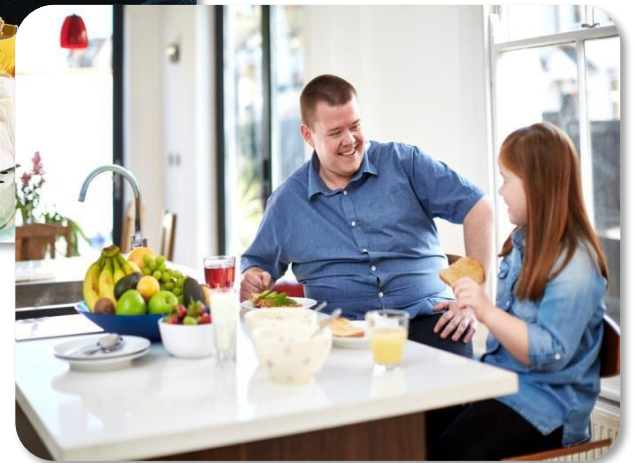


**A patient's 'best weight' may never be 'an ideal weight'**

Think realistic goals

# Building a rapport starts before we even say hello!

- Waiting area / consultation room seating
  - Weight capacity
  - Arms
  - Equipment
- Opportunity to display positive, **non-stigmatising** health messages
- Pace walk to consultation room (gait speed)



# The 5 A's approach



**Ask** for permission to discuss weight. Weight is a sensitive issue. Many people are embarrassed or fear blame and stigma



**Assess** obesity-related risk and potential 'root causes' of weight gain



**Advise** on obesity risks and discuss benefits and options



**Agree** on realistic weight-loss expectations and on a SMART plan to achieve behavioural goals



**Assist** in addressing drivers and barriers, offer education and resources, refer to provider, and arrange follow-up



1. Jay M, et al. *BMC Health Serv Res*. 2010;10:159
2. Vallis M, et al. *BMC Health Serv Res* 2013;59:27-31
3. Ogunleye A, et al. *BMC Res Notes*. 2015;8:810
4. Asselin J, et al. *CMAJ Open*. 2017;5:E322-9



# Our journey...what we have learned

- Identifying a problem:
  - Readiness & Support
  - Categorisation
  - Appropriate treatment planning
- A lot of trial and error!
- Positive outcomes & new developments
- Patient access, challenges and need for adequate funding!



# EASOCOM

EASO Collaborating Centre for Obesity Management

## ***Obesity: Living Well with a Chronic Disease***

***St Columcille's Hospital Weight Management Service***

***Annual Study Day***

***Friday 29<sup>th</sup> November, 08:30 – 16:00***

***St Columcille's Hospital, Loughlinstown, Dublin, D18 E365***



**Thank you  
for listening**



# References

- Adams KF, Schatzkin A, Harris TB, et al. Overweight, Obesity, and Mortality in a Large Prospective Cohort of Persons 50 to 71 Years Old. *N Engl J Med*. 2006 Aug 24;355(8):763-78. PMID:16926275
- Alley DE, Chang VW. The Changing Relationship of Obesity and Disability, 1988-2004. *JAMA*. 2007 Nov 7;298(17):2020-7. PMID: 17986695
- Carlin AM, Rao DS, Meslemani AM, et al. Prevalence of vitamin D depletion among morbidly obese patients seeking gastric bypass surgery. *Surg Obes Relat Dis*. 2006;2:98–103
- Fife CE, Carter MJ (2008) Lymphoedema in the morbidly obese patient: unique challenges in a unique patient. *Ostomy Wound Management* 54 (1):44-56
- Flynn A, Walton J, Gibney M, Nugent A, McNulty B. National Adult Nutrition Survey. Cork: University College Cork; 2011.
- King D. Foresight report on obesity. *Lancet* 2007 Nov 24;370(9601):1754
- Lancet, 2016. Worldwide trends in body-mass index, underweight, overweight, and obesity from 1975 to 2016: a pooled analysis of 2416 population-based measurement studies in 128·9 million children, adolescents, and adults.
- Mehrara B.J, Greene A.K (2014) Lymphedema and Obesity: Is There a Link? *Plast Reconstr Surg*. 134(1): 154e–160e
- National adult nutritional survey, 2011. Irish Universities Nutritional Alliances.
- Todd, M (2009) Managing chronic oedema in the morbidly obese patient. *Br J Nurs* 18(18):1120-1124



# Improving Prevention and Management of Simple Oedema in Primary Care

**Pippa McCabe** – Lymphoedema Clinical Lead, SEHSCT

**Vivienne Murdoch** – Chronic Oedema Liaison Nurse, SEHSCT

Susan Patterson – Pharmacy Advisor, Health and Social Care Board



Project Drivers



Methodology



Results



Service User and GP Feedback



Future Considerations

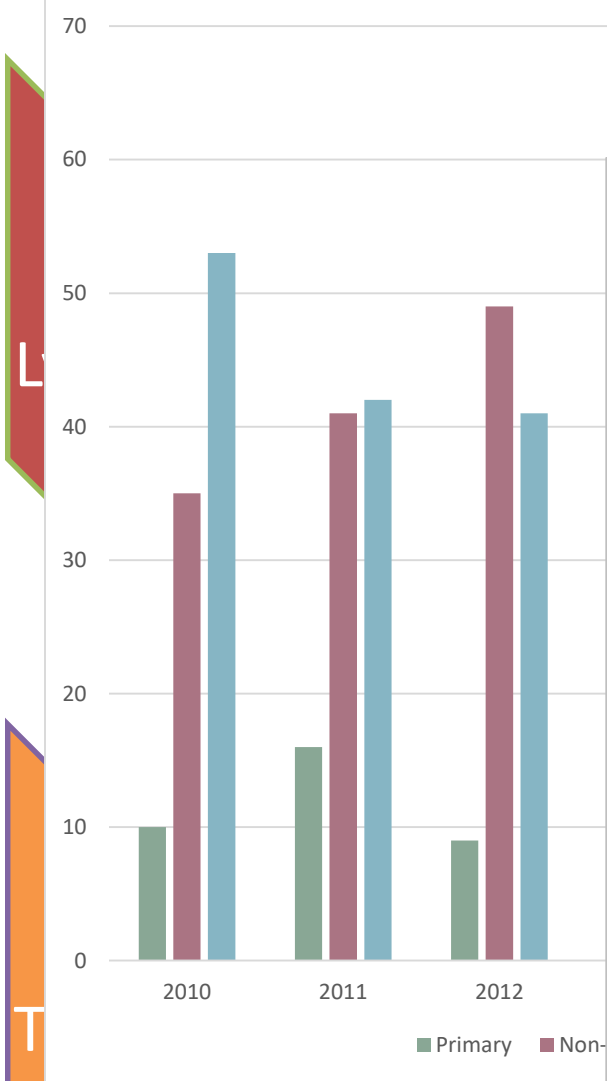
## Regional

- 1 in 200 patients over 65 present to the GP with oedema per year
- Prevalence increases with age
- Northern Ireland has highest number of over 85s in UK
- Cost to treat venous leg ulcer £ 5700 per year per patient
- Cost of oedema management approximately £100 per year per patient
- Over 50% of community nursing time is spent treating chronic oedema and leg ulcers (Lymphoedema Network Wales)

## Trustwide

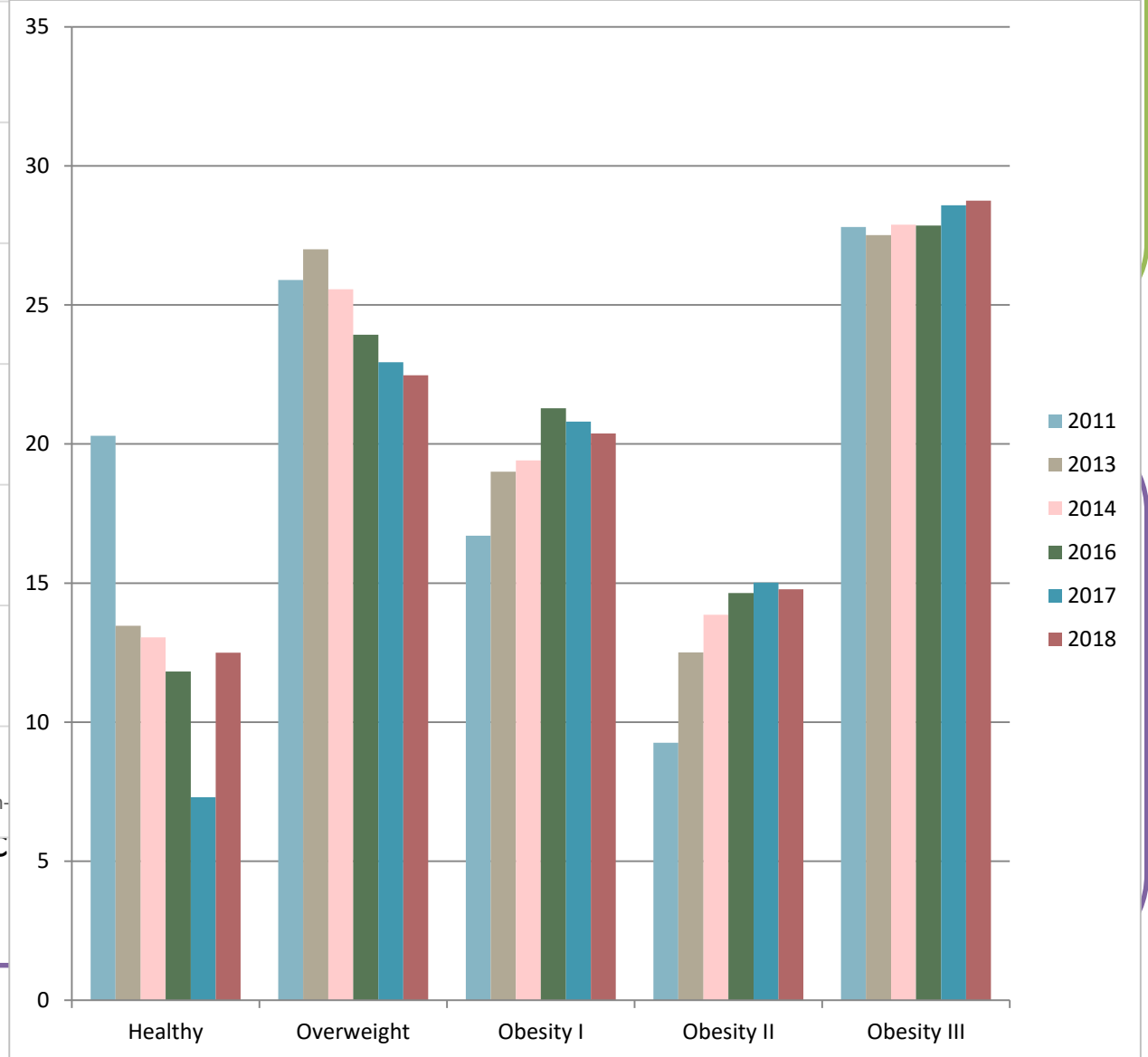
- 17/18 leg/foot cellulitis admissions = 580 patients with 4992 bed days at an estimated cost of £2million
- Short snapshot audit of district nursing caseload showed 35% with chronic oedema, 60% of these untreated.
- Diverse and uncoordinated approach to care remit for patients with oedema

phoedema and reduction in



Primary Non-

presc  
use.



2011  
2013  
2014  
2016  
2017  
2018





Chro



GP Practice

Local enhanced service funding offered to all surgeries in the Trust area

Ex  
int  
re

## How to apply your hosiery

- Turn the garment inside out to the heel
- Pull the stocking all the way onto your foot
- Gradually ease the rest of the stocking over your foot and up your leg a little at a time



- Use household rubber or gardening gloves to help with positioning and to smooth out creases
- Avoid wearing jewellery or digging nails into the knitted fabric
- Avoid over stretching the fabric or folding over the top of the garment
- Sprinkling talc on the limb may help with applying your garment
- A new garment may rub or irritate at the skin and joint creases. Applying petroleum jelly over the area can help ease discomfort. If this does not settle speak to your nurse
- If you have difficulty applying your garment speak to your therapist who will be able to discuss various aids and techniques to help you.

## REMEMBER

- Wear your hosiery **EVERY** day
- Wash, dry and moisturise your legs **EVERY** day
- **ELEVATE** your legs when you can
- **EXERCISE** as normally as possible
- **EAT WELL** and keep your weight within normal limits
- Replace your hosiery every **6 MONTHS**, or sooner if worn
- **DISCARD** the old hosiery
- Attend your treatment room **YEARLY** to check your circulation.

Produced by Communications Department

# Compression Hosiery

## Patient Information Leaflet



### Contact Details

Name: \_\_\_\_\_

Number: \_\_\_\_\_

Patient  
Oedema

Investigate and treat systemic cause.  
Consider onward referral as appropriate

- Patient at low risk ( see Red Box below)
- Dependency oedema
- Healthy pregnant women

Consider measuring and fitting Class 1 hosiery

Provide patient information leaflet

Advise patient re hosiery safety and good leg care i.e. foot elevation and exercise

Review patient in 2 weeks- refer for assessment at Oedema clinic

Is swelling resolving?

No

Consider patient concordance/ ability to apply hosiery

Refer to treatment room for advice

# Results from the past 15 months

## PATIENTS SEEN

255+

patients  
have  
attended  
healthy leg  
clinics



## PRESCRIBING



51

prescribing  
changes made  
to optimise  
compression  
hosiery

## EDUCATION



36 GP's

15

Practice Nurses

11

Pharmacists

## DEPRESCRIBING

31%

of patients  
deprescribed  
diuretics



## GP PRACTICES



29

Practices  
agreed to  
take part



# Patient Reported Outcome Measures



**69%**

indicated a reduction in pain and limb tightness

**70%**

very pleased with the service

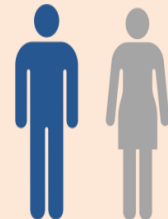


**94%**

identified provision of information on how to help their condition was the **best aspect of the service**

**100%**

patients found the negative impact of their swelling was reduced with intervention



# Service user and GP feedback

<https://www.youtube.com/watch?v=t1eKdcdvDcQ>



Oncology  
Oedema  
Cellulitis  
Lymphoedema  
Swelling  
Nurse  
Physiotherapist  
Psychology  
Wound  
Chronic Oedema  
Tissue Viability  
Mental Health  
Activity Coach  
Pharmacist  
Health Coach  
Leg Ulcer  
Podiatrist  
Leg Club  
Dietician

# Find out more



**pippa.mccabe@setrust.hscni.net**  
**vivienne.murdoch@setrust.hscni.net**



**@pippa\_mccabe**  
**@vivmurdoch15**



**BJN Awards 2019:chronic oedema nurse of the year  
runner up. Murdoch, V. British Journal of Nursing  
2019, Vol 28, No 20; TISSUE VIABILITY SUPPLEMENT**

# Questions?









Gillian McConaghie  
Catherine McClelland

 Southern Health  
and Social Care Trust

*Quality Care - for you, with you*

# Healthy legs- Background

Increased number of referrals to the clinic for chronic oedema patients

Developed as a service improvement project to manage these patients

Focus is on education and exercise

Promotes self management

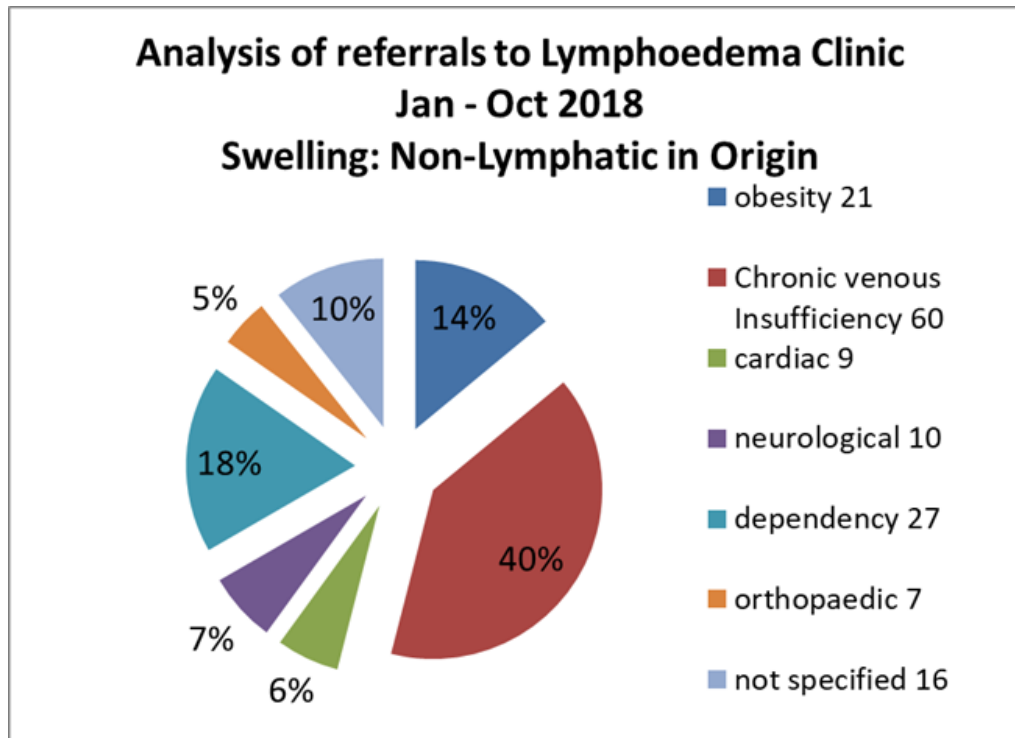
# Lymphoedema Referrals

## Analysis of Referrals to Lymphoedema Clinic Jan-Oct 2018

### Origins of swelling



# Non-lymphatic breakdown



# Healthy Legs Class Structure

- One to one assessment with lymphoedema specialist physiotherapist
- If suitable patients commence 4 week programme
- Patient reported outcome measures
- Objective measures
- Patient goals and expectations discussed and recorded

# Healthy Legs Class Structure



Healthy Legs Class Content			
Week 1	Week 2	Week 3	Week 4
Causes of swelling Signs and symptoms Complications associated with swelling	Self-management Skin care/foot care Positioning Physical activity	Principles of healthy eating Food labelling Weight control Onward referral	Role of compression garments Donning/doffing aids General care advice
EXERCISES	EXERCISES	EXERCISES	EXERCISES

# Healthy Legs Class Structure

- Post class questionnaires
- Onward referral
  - Podiatry
  - Dietetics
  - Dermatology
  - Tissue viability



- Referral to ex  **SOUTHERN** *Cycle For Health*



# Costs

- Staff band: Senior clinician and support staff
- Equipment (bariatric chairs, small exercise aids)
- Venue Hire
  
- 1 WTE specialist physiotherapist and 1 WTE physio assistant can deliver 29 Groups with 1 years treatment and follow up
  
- Based on full capacity classes 290 patients could be managed via the Healthy Legs Class per year.



# So far...

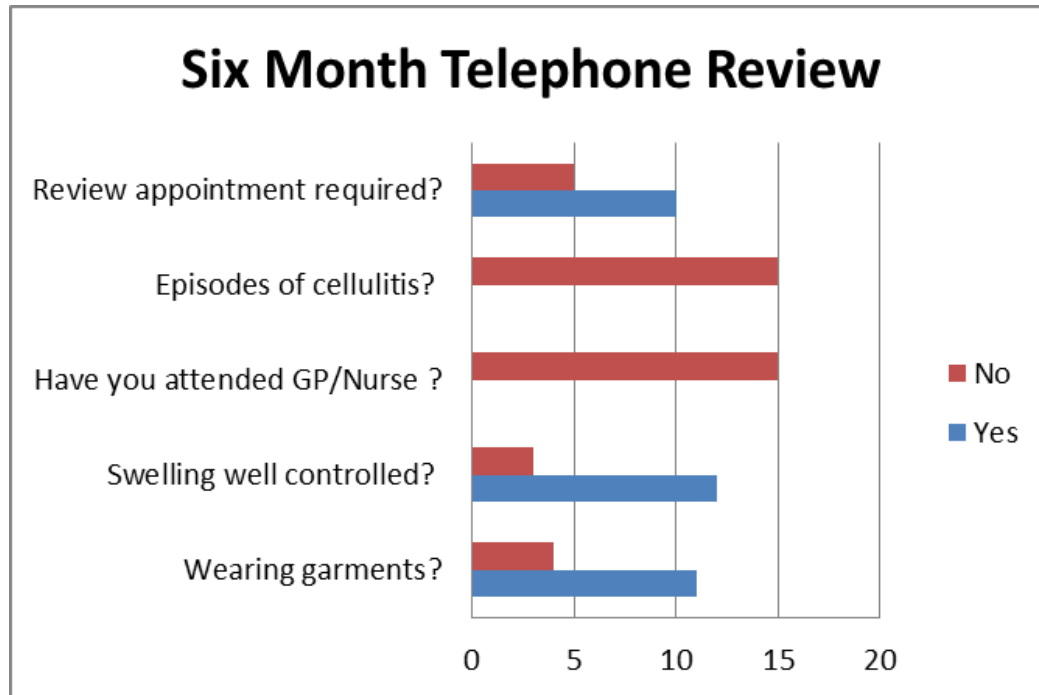
- Running since 2016
- Numbers through service

Time	Total no of referrals	No of HLC referrals	% HLC of total
Oct 17-Mar 18	187	25	13.3
Apr 18-Sept 18	237	48	18.6
Oct18-Mar 19	225	36	16
Apr 19- Sept 19	257	60	23.3

- Complex patient group
- Improved patient concordance
- Attendance rates (Wolff et at., 2019)
- Time savings

# Outcomes

- Telephone review



# Patient Stories

## **Patient A (initial assessment)**

- 39 year old female
- Family history of CVI
- Sedentary job
- BMI 41.2
- Weight increasing
- Not active at all
- Bilateral leg oedema

## **Patient A (on telephone review)**

- Not wearing garments...
- Exercising three times weekly
- Healthy eating
- 2 stone weight loss
- BMI 34
- Leg oedema resolved

# Patient Stories

## **Patient B (initial assessment)**

- 72 year old male
- CVI
- BMI 37
- Inactive lifestyle

## **Patient B (six month review)**

- Completed exercise scheme
- Joined and attending gym
- Wearing garments
- 1 stone weight loss
- BMI 34.5

“The class was very comprehensive. Thoroughly enjoyed the class – Staff made it fun while giving us the tools to look after ourselves and what to look for if further help is needed”

# Patient Stories

## Patient C

- 48 year old man
- Obesity related leg oedema
- BMI 68 on assessment
- Social isolation
- Long history of recurrent cellulitis and ulceration
- Poorly compliant
- Frequent non attender

## Patient C

- Enjoyed social interaction
- No further cellulitis or ulceration
- BMI 64 after 6 months
- More active
- Compliant with skincare and compression therapy
- Empowered to self manage

“the class was the best thing I ever went to...”

# Patient feedback

*"I learned why my legs are swelling, importance of exercise ...I found the group exercises helpful"*

*" I now understand the problem with my legs and how to look after them. Enjoyed the class very much and was glad to have been referred to it."*

## **What have you learned from your time at 'Healthy Legs'?**

*"I have learned to keep exercising and wear my garments and to look out for any signs of infection. I found the classes very informative and enjoyed the exercises I did and will continue to do them"*

*"Really enjoyed the class especially the exercises & hearing about other people's legs problems & how they manage theirs".*

# Evidence for Healthy Legs Class

## Does the evidence support a different treatment pathway?

### Group based patient education for patients with chronic conditions

A literature scoping review identified that participants experienced the programs as beneficial according to less symptom distress and greater awareness of their own health, improved self-management strategies, peer support, learning and hope (Stenberg et al., 2016). Barlett (1995) showed for every dollar spent on patient education, four is saved.

### Exercise in the management of venous leg ulcers

Kirsner 2018 produced a meta analysis of 5 small studies, and it suggested exercise offers an additional healing benefit in patients with leg ulcers (61% healed at 12 weeks in comparison to 41%)

### Exercise in the management of arterial insufficiency

Cochrane systematic review by Lane et al., 2017 concluded there was high-quality evidence showing that exercise programmes provided important benefit compared with placebo or usual care in improving both pain-free and maximum walking distance in people with leg pain from intermittent claudication who were considered to be fit for exercise intervention.

### Telephone reviews

Literature scoping review examined telephone consultations for people with chronic conditions. 47 articles were reviewed and found this model can improve health behaviour, self-efficacy and health status. The review found that telephone-based coaching can enhance the management of chronic disease, especially for vulnerable groups. (Dennis et al., 2013)

### Cost

For every £1.00 spent on lymphoedema treatments that limit swelling and prevent damage and infection, the NHS saves an estimated £100 in reduced hospital admissions (NCAT, 2013).

# Review of recent referrals

- 57 referrals
- 25 referrals noted BMI

BMI	Number of Patients
20-24.99	1
25-29.99	6
30-39.99	6
40-49.99	6
50-59.99	4
60+	2

Diagnosis from referral	Number of patients
Lipoedema	2
Cancer related lower limb	6
Cancer related upper limb	12
Chronic oedema	21
Chronic venous insufficiency	11
Dependency	1
Neurological	1
?primary	1
Upper limb MSK	1
total	57



# Thoughts?

- Lymphoedema/chronic oedema/obesity related oedema
- How do we develop our service to meet the changing needs of our patients?
- Are we sufficiently addressing the causative and contributing factors?
- Wider benefits to our patients – health promotion, peer group support ?

# Thoughts?

- Based on our findings and the evidence could this model be transferred to all our patient groups within lymphoedema?
- Way forward...?



**TRYING DIFFERENT WAYS  
OF DOING THINGS IS  
WHAT BRINGS INVENTION**

PICTURE QUOTES - 2011



# References

- Wolff, D., Waldorff, F., von Plessen, C., Mogensen, C., Sørensen, T., Houliind, K., Bogh, S. and Rubin, K. (2019). Rate and predictors for non-attendance of patients undergoing hospital outpatient treatment for chronic diseases: a register-based cohort study. *BMC Health Services Research*, 19(1).
- Stenberg, U., Haaland-Øverby, M., Fredriksen, K., Westermann, K. and Kvisvik, T. (2016). A scoping review of the literature on benefits and challenges of participating in patient education programs aimed at promoting self-management for people living with chronic illness. *Patient Education and Counseling*, 99(11), pp.1759-1771.
- Bartlett, E. (1995). Cost-benefit analysis of patient education. *Patient Education and Counseling*, 26(1-3), pp.87-91.
- Kirsner, R. (2018). Exercise for Leg Ulcers. *JAMA Dermatology*, 154(11), p.1257.
- Lane, R., Harwood, A., Watson, L. and Leng, G. (2017). Exercise for intermittent claudication. *Cochrane Database of Systematic Reviews*.
- Dennis, S., Harris, M., Lloyd, J., Powell Davies, G., Faruqi, N. and Zwar, N. (2013). Do people with existing chronic conditions benefit from telephone coaching? A rapid review. *Australian Health Review*, 37(3), p.381.
- NCAT, 2013. Macmillan Cancer Support (2011). Specialist lymphoedema services: an evidence review. <http://tinyurl.com/mfwf785> (accessed 18 October 2019) and Lymphoedema Services in England: A case for change.