# THE IDEAL CDT SITUATION VERSUS ONE MONTREAL HOSPITAL CLINIC'S REALITY; How we are treating and HELPING OUR PATIENTS

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### **CDT**

- Criterion therapy for lymphedema
- Europe
  - Therapy well recognized and part of health care system
  - Inpatient (lymphedema institution)
- Quebec (Canada)
  - Therapy not yet recognized
  - 2014: compression garment recognized by the RAMQ
  - 2018: bonification of garment program
  - Setting: Outpatient (hospital or private clinic)
  - 5<sup>th</sup> component to CDT: self-management



# HOSPITAL'S AND PRIVATE CLINIC'S REALITY

#### **HOSPITAL**

- Modified CDT offered 1-3 day(s) per week
- Advantage: free (patient only pay for bandages/garments)
- Inconvenient: therapy often postponed because of the waiting list
- Garment: community fitter

#### **PRIVATE CLINIC**

- Conventional CDT offered 5 days per week
- Advantage: minimal delays in starting the therapy
- Inconvenient: all costs are assumed by the patient
- Garment: community fitter



### COMPRESSION

- Compression modalities
  - Multi-layers bandaging
  - 2-layer cohesive system
  - Neoprene breathable compression system



### **OBJECTIVE**

To estimate the extent to which,

- (P) in women with BCRL
- (I) using a modified compression component of CDT
- (C) compared to conventional multi-layer bandaging of CDT
- (O) obtained significant arm volume reduction



#### SETTINGS

- Clinic opened 2008
  - 300 women/year
- Charitable foundation
- 3 Vodder certified lymphedema therapists
- Patients
  - Pre / Post-surgery; follow-up min. 2 years
- Workload + "outpatients" → seen 1-2 / week OR 1 every 2<sup>nd</sup> week
  - Wait list: ~ 6 weeks



### **METHODS**

#### **PARTICIPANTS**

- Inclusion
  - ≥ 18 years old
  - Unilateral breast cancer
  - Sings/symptoms BCRL requiring intensive therapy
- Exclusion
  - Bilateral breast cancer
  - Malignant lymphedema
  - Maintenance phase
  - Stage 1 lymphedema

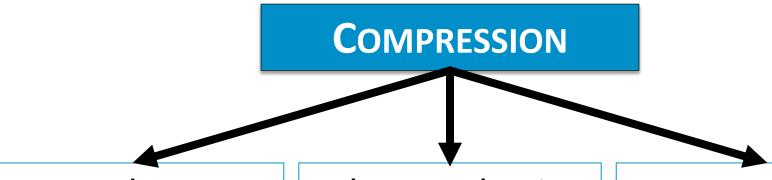
#### **ASSESSMENTS**

- Education
  - Post-op exercises
  - Upper extremity dysfunction risk reduction
  - Lymphatic system
  - Ongoing education
- Assessment
  - Arm circumferences
  - Shoulder ROM
  - BMI



### **COURSE OF CDT**

- Lymphedema present (> 10%) → CDT
- Waiting period: ~ 6 weeks
- Education (lymphatic system + self-management)



#### **Bandages**

- 09-2008/12-2013
- Cost ~ 50\$
- 2-3 x / week

#### 2-layer cohesive

- 02-2014/10-2014
- Sponsorship (30\$)
- 1-2 x / week

#### Neoprene

- **11-2015/ 06-2017**
- Cost ~ 250\$
- 1/week or 2<sup>nd</sup> wee



### RESULTS

Variable: Mean/ Frequency (SD) / (%)	Bandages (n = 45)	2-Layer (n = 17)	Neoprene (n = 15)	P-value
Age, years	62.6 (10.7)	67.5 (9.2)	59.4 (16.2)	0.17
<ul> <li>Breast surgery</li> <li>Mastectomy</li> <li>Lumpectomy</li> </ul>	18 (40 %) 24 (53 %)	6 (35 %) 11 (65 %)	9 (60 %) 6 (40 %)	0.356
Axilla surgery  ALND SLNB	41 (91 %) 1 (2 %)	16 (94 %) o (o %)	14 (93 %) 1 (7 %)	0.06
Chemotherapy  Yes  No	34 (76 %) 9 (20 %)	13 (76 %) 3 (18 %)	3 (20 %) 12 (80 %)	0.0003
Radiation therapy  Yes  No	38 (84 %) 3 (7 %)	16 (94 %) o (o %)	14 (93 %) 1 (7 %)	0.55



### RESULTS

Compression modality	Bandages (n = 45)	2-Layer (n = 17)	Neoprene (n = 15)	P-value
Pre-treatment (ml) <ul><li>Healthy limb</li><li>Affected limb</li></ul>	2298.0 (547.9) 2922.0 (718.7)	2281.5 (623.3) 3006.4 (616.0)	2234.3 (696.0) 2902.5 (806.0)	
Post-treatment (ml)  Healthy limb Affected limb	2283.7 (552.1) 2624.0 (589.7)	2319.3 (596.2) 2789.0 (566.4)	2227.3 (644.9) 2655.0 (760.8)	< 0.001
% volume change	45.5 %	35.2 %	36.1%	0.007
# times seen	7.6 (3.6)	6.8 (2.0)	3.9 (2.3)	0.005
Length of therapy (days)	32.7 (17.5)	29.2 (18.4)	66.9 (19.3)	< 0.001



#### DISCUSSION

- Have to find solutions: CDT not realistic
- Studies report 40-50% limb volume reduction
  - Modified CDT = 45.5% / 2- layer = 35.2% / Neoprene = 36.1%
- Constraint: compliance to compression
  - Difficult 24/7
  - Hygiene difficult (e.g. showering)
- Neoprene
  - Donning/Doffing: simple
  - Allow more time for education, self-management and MLD



#### CONCLUSION

- CDT is an integral part of the solution
  - Greatest results obtained
    - However: NOT a realistic situation
- Education on risk reduction strategies and on selfmanagement + Neoprene system
  - Significant results
  - Length of therapy is longer
    - However: with hospital time constraint, suitable situation, cost efficient and higher patient compliance to therapy.

## THANKYOU!

# QUESTIONS?

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