



## Night-time Compression for Breast Cancer Related Lymphedema (LYNC): A Randomized Controlled Efficacy Trial



Bolette Rafn, Study Coordinator
Physiotherapist
Master in Health Science
PhD student in Rehabilitation Sciences at University of
British Columbia



#### **STUDY TEAM**

#### Principal Investigators:

Dr. Margaret McNeely

Vancouver InvestigatorDr. Kristin Campbell

#### Physicians:

- Dr. Urve Kuusk
- Dr. Elliott P. Weiss

# Lymphedema therapist: • Fatima Inglis









#### WHY?

- 24,000 Canadian women develop breast cancer every year
- 88% will survive at least 5 years



#### LYMPHEDEMA IN CANADA

 Approximately 50,000 breast cancer survivors in Canada have developed lymphedema

 20,000 are living with the progressive form of the condition



### LIVING WITH LYMPHEDEMA

- Functional limitations
- Pain
- Risk of infections in the arm

- Limited support
- Inadequate information
- Increased medical expenses



#### **COMPRESSION BANDAGING**

- Complicated technique
- Often a family member is needed for help
- Time consuming to apply bandaging
- A challenge to achieve consistent pressure of the bandage
- Poorly applied bandages are ineffective and can cause discomfort which can disturb sleep and require removal or reapplication of the bandages





#### **NIGHT-TIME COMPRESSION SYSTEM GARMENT**





#### **NIGHT-TIME COMPRESSION SYSTEM GARMENT**

- simple to use
- easy to adjust
- apply gentle pressure to the arm through a garment with a foam liner and a series of adjustable straps
- non-elastic and provide low resting pressure on the arm
- safe to wear while sleeping at night
- alternative self-management strategy



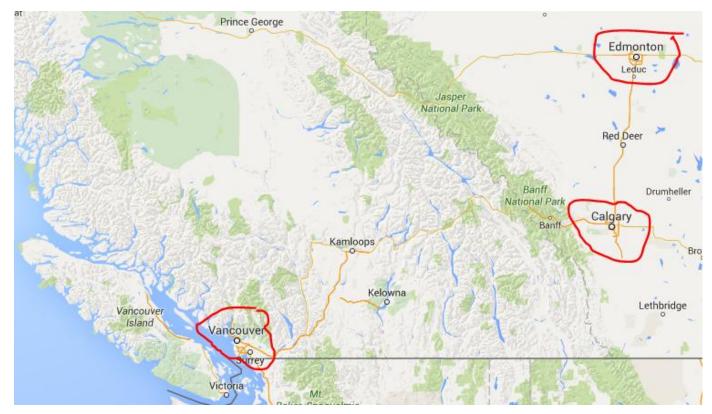
#### **AIM**

- Night-time compression can improve control of arm lymphedema
- 2. Night-time compression can improve
  - Quality of life
  - Sleep quality
  - Arm function
- 3. If Night-time Compression System Garment is beneficial over Compression Bandaging



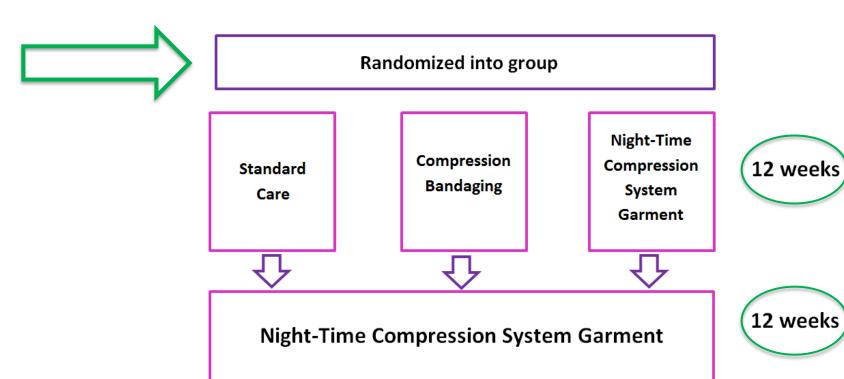


#### **STUDY SITES**



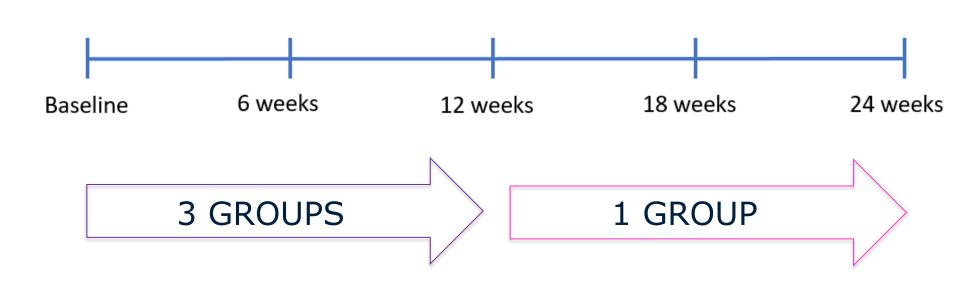


#### **STUDY DESIGN**





#### **STUDY OUTLINE**





#### **ARM ASSESSMENT**

- Arm volume: perometer
- Arm fluid: bioimpedence analysis
- Questionnaire







#### **GROUP 1: DAY-TIME SLEEVE ONLY**

- Day-time compression sleeve
- 6-week: evaluate response
- 12-week: women in this group will be fitted for a NCSG
- 18-week and 24-week: evaluate response to the NCSG treatment



#### **GROUP 2: NIGHT-TIME COMPRESSION BANDAGING**

- Instructed in the application of night-time multi-layered
   CB by the physical therapist
- Wear the CB at night while sleeping
- Day-time compression sleeve
- 6-week: evaluate response to the CB protocol
- 12-week: women in this group will be fitted for a NCSG
- 18-week and 24-week: evaluate response to the NCSG treatment



# GROUP 3: NIGHT-TIME COMPRESSION SYSTEM GARMENT

- Women will be fitted with NCSG by the physical therapist
- Wear the NCSG at night while sleeping
- Day-time compression sleeve
- 6-week, 12-week, 18-week and 24-week: evaluate response to the treatment



#### **PARTICIPANTS**

- 1. Women with a history of breast cancer
- 2. Lymphedema in one arm only
- 3. Have completed all primary and adjuvant cancer treatments
- 4. Not pursue any other lymphedema treatments
- 5. Have own properly fitted compression day-time sleeve
- 6. No current use of night-time compression



#### **INTERESTED IN LEARNING MORE?**

Bolette Rafn Study coordinator

bolette.rafn@ubc.ca 604-827-1914



### Thank you!