



Title: LYMPHEDEMA ASSESSMENT AND TREATMENT IN THE WOUND CARE POPULATION. Shier, Byron. MBA, BSc. OT (C), CLT-LANA. Calgary Lymphedema Rehabilitation and Consulting Services Inc., Calgary, Alberta.

Abstract:

Objective: To discuss the accepted lymphedema therapy standard of clinical practice and the contribution a certified lymphedema therapist may make to a wound care team.

Methods: Lymphedema can be effectively managed through a combination of manual lymphatic drainage (MLD), compression bandaging, skin care education, and a home exercise program. Client education is critical to long-term lymphedema management. In Canada, there is a lack of standardized education and practice of these techniques. The recognized standard across North America for lymphedema rehabilitation, developed by the Lymphology Association of North America (LANA), will be discussed. A discussion of the efficacy and necessity of standardized lymphedema rehabilitation as an essential part of wound care management will be presented.

Results: Research supports the benefit of a certified lymphedema therapist to the wound care team.

Conclusion: In Canada, an effort should be made to develop clinician skills to meet the LANA standard. A consistent standard of lymphedema care is essential to improve consistency of wound care across health regions. Lymphedema therapists can be an integral part of the interdisciplinary wound care team. They provide evidence-based interventions that are essential in client recovery, knowledge, compliance and satisfaction.

International Society of Lymphology standard

The consensus document of the International Society of Lymphology (ISL), published in *Lymphology*, vol. 36, (2003), recognizes complete decongestive therapy (CDT) as the standard of care for non-operative lymphedema management. Treatment can be broken down into 2 phases that applies to both children and adults. The first phase consists of skin care, manual lymphatic drainage, range of motion exercise and compression therapy applied with multi-layered compression bandaging. Phase 2 of treatment involves conservation of results by application of compression through a low-

stretch elastic sleeve or stocking, skin care, continued “remedial” exercise, and repeated light manual lymphatic drainage as needed.

The ISL recognizes therapists must be trained and educated in this treatment method. Treatment, such as multi-layered compression bandaging, when applied incorrectly, can be harmful and/or useless to clients. The ISL recognizes that intermittent pneumatic compression, or use of a compression pump, increases risk of development of a fibrosclerotic ring at the root of the extremity with possibility of exacerbated obstruction of lymphatic flow in other regions. The Society recommends all conservative lymphedema treatment should be carried out by professionally trained personnel.

North American Certification

The Lymphology Association of North America (LANA) is a non-profit corporation composed of healthcare professionals experienced in the field of lymphology and lymphedema. The organization has developed a national certification examination for lymphedema therapists in Canada and the United States to test knowledge considered fundamental in the treatment of lymphedema. As of Spring 2003, the eligibility criteria for taking the exam are:

- 135 hours of complete decongestive therapy (CDT) training consisting of 1/3 theoretical instruction in the anatomy and physiology of the lymphatics, and 2/3 significant hands on mentoring;
- 2 years documented experience after receiving CDT training;
- Current unrestricted licensure as an registered nurse, occupational therapist, physical therapist, medical doctor, or massage therapists who have completed 500 massage school hours and/or National therapeutic massage and bodywork certification;
- 180 hours of college/university level human anatomy, physiology and/or pathology. This requirement is automatically met with evidence of current licensure of: registered nurses, occupational therapists, physical therapists, or medical doctors.

Passing the examination grants a 6 - year certification period.

Case Study:

Client is a 16 year-old male referred to outpatient occupational therapy services with a 6-year history of progressive right lower extremity lymphedema, status post right inguinal lymph node biopsy in 1989. On assessment, he presented with a deep pitting edema, with volumetric measurements 440% greater than his unaffected leg. He presented with the edema almost exclusively between his patella and bilateral malleoli of his lower leg. His foot was not involved. He demonstrated significant secondary fibrosis around the malleoli. Using a 10-point pain analogue scale, he rated his pain ranging from 4 to 8 during a typical 24 - hour day. He described the pain symptoms as fluctuating between a constant throbbing to periodic sharp shooting episodes. He reported an increase in symptoms with prolonged weight bearing during daily activity. The client reported a history of recurrent cellulitis and was on oral antibiotics at time of assessment. He presented with symptoms consistent with acute cellulitis, including a significant erythema throughout his affected lower extremity. Superficial discharge of lymphatic fluid was noted from multiple sites. The client noted his affected leg was prone to developing open wounds with incidental physical contact. His primary wound care strategy was using band-aids and duct tape to cover the open wound sites. The client presented with referred right lateral hip pain in his affected leg impacting his gait pattern. He was observed circumducting his affected extremity while walking, and avoided all high school sports involving running. The client was wheelchair bound for the month prior to assessment due to the pain levels.

He also noted significant issues managing lower extremity basic activities of daily living. He reported requiring occasional minimal assist with lower extremity dressing and bathing, along with difficulty finding jeans and pants to accommodate his lower extremity lymphedema. He reported being routinely fitted with a size 42 pant waist to accommodate his lower leg while his actual waist size was 31. The client expressed frustration and anxiety associated with this condition, and reports decreasing his social activity due to his negative body image. He reported concern about how his limb would be perceived by his peers. At assessment, he was being home schooled to

complete his high school education due to his functional restrictions and psychosocial issues associated with this condition. At time of assessment, he weighed 220 lbs. The client reported gradual weight gain was directly correlated with the concurrent increase in volume of his affected lower extremity. He reported no prior history of lymphedema treatment or a wound care assessment prior to being assessed in the clinic. He reportedly uncovered treatment options through an Internet search, and subsequently pursued a treatment order from a local family physician.

Treatment was initially directed by education on proper wound care self-management, including basic sterile dressing technique. Wound care involved thoroughly flushing the affected regions, and bandaging with duoderm pads and sterile bandaging. Skin care education was introduced including instruction on routine cleaning, and moisturizing surrounding skin tissue with a low pH topical lotion. After the assessment, the therapist recommended his family doctor prescribe an oral antibiotic prophylaxis while in treatment. The client was treated with daily wound care management, and concurrent CDT treatment for 2 months. Subsequently, treatment was reduced to 3 sessions/week for 3 months. The client demonstrated excellent compliance to the home treatment program including daily compression wrapping, home exercise and skin care program. At discharge, the client achieved a 95% decrease in edema in his affected leg and lost 35 lbs of weight. He is managing his edema with a custom 50-60mmHg, compression class 4 Juzo Helastic garment recommended by the therapist. He reported being particularly excited to be able to return to wearing a standard pair of denim pants.

The client has since returned to public school, and was planning on pursuing a post-secondary education. He reports no limitations in his basic daily activities, and reports increasing his physical activity without any complications. His lower leg skin integrity continues to improve with prolonged use of the sleeve and compliance to his home program. He noted a dramatic increase in his social activity since receiving treatment for his condition, noting daily use of the compression garment poses no difficulties or concerns.

Please feel free to ask me any questions you may have about this outcome.

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Certified Lymphedema therapist

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