National Lymphedema Network

Position Statement of the National Lymphedema Network

By: NLN Medical Advisory Committee

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TOPIC: Screening and Measurement for Early Detection of Breast Cancer Related Lymphedema

Breast cancer treatment places individuals at lifelong risk for the development of lymphedema. Early identification of lymphedema is believed to yield better patient outcomes. Patient education regarding the signs and symptoms of developing lymphedema and objective measurement of arms are needed to promote early identification and to improve patient outcomes.

- Patient education: Patients should be made aware of the need to contact a healthcare provider immediately if they begin to experience feelings of heaviness or tightness in at-risk arms; if they notice swelling in the affected area; or if the arm and/or at risk chest or truncal areas becomes hot or red.
- Objective measurement: Pre-treatment baseline measurement of arms is essential, as this serves as the baseline data to which subsequent measurements can be compared. Regular measurements following treatment are indicated for the remainder of the patient's life. Surgeons and medical oncologists who treat breast cancer and follow breast cancer patients/survivors should conduct these measurements at every patient visit. Such measurements should also be conducted in cases where primary care physicians or advanced practice nurses provide follow up care in lieu of the treating surgeons or oncologists.

The following guidelines are suggested for all individuals, practices, or centers that treat breast cancer:

- There is a written institutional policy and protocol addressing pre- and post-treatment arm measurements.
- All patients receive risk-reduction guidelines prior to treatment. (1, 2)
- All patients have their height and weight measured prior to treatment and their Body Mass Index (BMI) calculated, as an elevated BMI is associated with increased risk of developing lymphedema. (3, 4) Weight should be obtained and BMI calculated on every subsequent visit.
  - o Overweight patients who have a BMI ≥ 25 should be referred to dietician for nutrition education. (5)
  - o Obese patients who have a BMI ≥ 30 should be referred to a dietician for nutrition education and weight reduction. (5)
- All patients diagnosed with breast cancer have pre-treatment measurements on both arms. They may be given a record of this information that can be shared by them with treatment providers.
- All patients have post-treatment measurements on both arms at each visit.
- All patients have post-treatment symptom assessments for swelling, heaviness, and/or tightness in the affected arm/arms, and at-risk chest and truncal areas.
- Consistent measurement methods, as designated in the protocol, are used pre- and post-¬treatment to facilitate measurement comparison, and are recorded in the patient medical records.
- Circumferential tape measurements are acceptable when made with a flexible, non-elastic Gulick II (or similar) tape measure. (6) At minimum, six measurements are recommended: circumference at the mid-hand, wrist, elbow, upper arm just below the axilla, and at 10cm distal to and proximal to the lateral epicondyle on both

arms. Bioelectrical spectroscopy (BIS) or infrared perometry are suggested as alternative or adjunct methods to circumferential measurement. Specific protocols describing standard positions and measurements for these procedures should be in place.

- Medical records contain pre- and post-treatment measurements in a format that is easily retrievable by the medical team.
- There is documentation that those performing such measurements have been trained and are capable of reliable measurement.
- There are institutionally-defined criteria for treatment referral based upon:
  - o Objective measurements (e.g., an increase of 1 cm in any of the circumference measurements compared to the contralateral limb warrants a follow-up visit in one month. A 2 cm change in any of the circumferential measurements or a 5% volume change in an at-risk limb as calculated by a circumferential formula or perometry in the absence of such a change in the contralateral limb or a BIS reading outside normal limits for equipment being used (e.g., L-Dex reading >10) warrant immediate referral for further evaluation by a professional trained in lymphedema assessment and management.
  - o Objective evidence/visualization of swelling in the chest or trunk.
  - o Subjective symptom reports (perceived swelling, tightness, tingling, or heaviness) in arm, chest, or trunk.
- There is documentation that referrals for treatment have been made when indicated. Such referrals should be made to one of the following:
  - o Certified Lymphedema Therapists who have met the minimum of 135 hours of lymphedema certification training as outlined by the Lymphology Association of North America (LANA®), or
  - o Physician, advanced practice nurse, or physician's assistant knowledgeable about lymphedema and lymphedema management.

References

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6. Fu, M.R., Ridner, S.H., & Armer, J. (2009). Post-Breast Cancer Lymphedema: (Parts 1 and 2). The American Journal of Nursing, 109(7):48-54 (quiz 55) and 109(8):34-41 (quiz 42). PMIDs 19546644 and 19641404.