

Lymphedema Precautions: When are they Required? A Literature Review

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Purpose of Project

To conduct a literature review to determine the level of support for the avoidance of historical lymphedema precautions, such as injections, IV therapy, blood draws, and blood pressure measurements on the ipsilateral arm of breast cancer patients who had axillary lymph node removal surgery in prevention of lymphedema

Background/Significance

- Current practice and guidelines advise clinicians to avoid injections, IV therapy, blood draws, and blood pressure measurements on the ipsilateral arm of patients who had undergone axillary lymph node removal for breast cancer in order to reduce the risk of breast cancer–related lymphedema
- These practices have caused anxiety and psychological burden to breast cancer survivors due to the avoidance of current activities, (no BP and needle sticks)
- Problems of excessive reliance on only one arm or neither arm due to bilateral axillary surgery for needle sticks and blood pressures has lead to extreme challenges and reduced success for the clinician

Methodology

A literature review was completed by analyzing eight journal articles, including meta-analysis reviews, to determine if lymphedema precautions are necessary for all breast cancer patients undergoing axillary lymph node removal surgery due to breast cancer

Sample and Setting

A literature review studied breast cancer patients undergoing axillary lymph node removal surgery in multiple medical facilities including surgical sites, inpatient facilities and ambulatory clinics

Literature Review Journal Articles

Ahn, S., & Port, E. R. (2016)	Lymphedema precautions: time to abandon old practices
Asdourian, M., Skolny, M., Brunelle, C., Seward, C., Salama, L., & Taghian, A. (2016)	Precautions for breast cancer-related lymphedema: risk from air travel, ipsilateral arm blood pressure measurements, skin puncture, extreme temperatures, and cellulitis
Cemal Y., Pusic A., & Mehrara B. J. (2011)	Preventative measures for lymphedema: Separating fact from fiction
Cheng, C. T., Deitch, J. M., Haines, I. E., Porter, D. J., & Kilbreath, S. L. (2014)	Do medical procedures in the arm increase the risk of lymphoedema after axillary surgery?
Ferguson, C. M., Swaroop, M. N., Horick, N., Skolny, M. N., Miller, C. L., Jammallo, L. S., Brunelle, C., O'Toole, J. A., Salama, L., Specht, M. C., & Taghian, A. G. (2016)	Impact of ipsilateral blood draws, injections, blood pressure measurements, and air travel on the risk of lymphedema for patients treated for breast cancer
O'Toole, J., Jammallo, L. S., Skolny, M. N., Miller, C. L., Elliott, K., Specht, M. C., & Taghian, A. G. (2013)	Lymphedema following treatment for breast cancer: a new approach to an old problem
Bryant, J., Hajjar, R., Lumley, C., Chaiyasate, K. (2016)	Clinical Inquiry-In women who have undergone breast cancer surgery, including lymph node removal, do blood pressure measurements taken in the ipsilateral arm increase the risk of lymphedema?
Winge, C., Mattiasson, A., & Schultz, I. (2009)	After axillary surgery for breast cancer – is it safe to take blood samples or give intravenous infusions?

Findings

- Injections, IV therapy, blood draws, and blood pressure measurements on the arm of patients who have undergone axillary lymph node removal for breast cancer do not need to be avoided in a person unless they are diagnosed with lymphedema
- Patients should be educated on the data and advised to maintain an active lifestyle, maintain or achieve a healthy weight, participate in regular exercise, practice good skin care and eat a healthy diet to prevent lymphedema
- Patient education materials as well as current standards can be updated to reflect current evidence

Implications

- Anxiety and psychological burden felt by breast cancer survivors due to the avoidance of current activities, (no BP and needle sticks) may be reduced
- Clinicians have additional options for venipuncture, avoiding potential alternative venous access locations, such as a central line or foot

Application to Practice

- The studies reviewed overwhelmingly indicated that there is no strong or robust evidence to indicate that historical lymphedema precautions, such as injections, IV therapy, blood draws, and blood pressure measurements on the ipsilateral arm of patients who had axillary lymph node removal caused lymphedema
- **These procedures can now be safely performed on a person without diagnosed lymphedema**

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