

Appendix A – Search Strategies Detailed

Appendix A – Search Strategies Detailed

OVID-Medline

1. exp Lymphedema/
2. lymph?edema.ti.
3. or/1-2
4. limit 3 to english language
5. animals/ not (animals/ and humans/)
6. 4 not 5
7. (comment or editorial or letter).pt.
8. 6 not 7
9. limit 8 to yr="1990 - 2009"

OVID-Embase

1. Lymphedema/
2. lymph?edema.ti.
3. or/1-2
4. limit 3 to english language
5. (editorial or letter or note).pt.
6. 4 not 5
7. limit 6 to human
8. limit 6 to animals
9. 6 not 8
10. limit 9 to yr="1990 - 2009"

OVID-CCTR

1. exp Lymphedema/
2. lymph?edema.ti.
3. or/1-2
4. limit 3 to yr="1990 - 2008"

OVID-AMED

1. Lymphedema/
2. lymph?edema.ti.
3. or/1-2
4. limit 3 to english language
5. limit 4 to (commentary or editorial or letter or news or notes)
6. 4 not 5
7. limit 6 to yr="1990 - 2008"

EBSCO-CINAHL

TI lymph?edema or MH lymphedema Limiters - Publication Year from: 1990-2009; English Language

Original search was undertaken on January 06 2009 and an update using the same search strategies was performed March 20 2009.

Appendix B – Data Abstraction Forms

Appendix B - Forms

Full Text Screening Questions

Ref ID: _____ Name of Screener: _____

1. Is this study a narrative review, a case study (n=1), a commentary, an editorial, a study of primary lymphedema/filariasis/drug treatments for lymphedema/surgical treatments ALONE for lymphedema?

Yes (STOP)

2. Is this study: (Check all that apply)

A qualitative study (STOP)

A Quality of Life (QOL) assessment of subjects with lymphedema (that does not examine efficacy of a Rx intervention) (STOP)

An incidence/prevalence study of lymphedema following surgery for cancer (STOP)

A study of prevention for lymphedema (ie all subjects do not have lymphedema) (STOP)

An investigative study of lymph flow/lymphatic system with no treatment or diagnosis of lymphedema included (STOP)

None of the above (continue)

3. All or some of patients have secondary LE or suspected secondary LE and if primary and secondary patients used, results are stratified by primary and secondary LE?

Yes (continue)

No (exclude)

4. Is this study:

Primarily an investigative/exploratory study of a diagnostic method(s) for lymphedema? (STOP)

Article evaluates the Sensitivity/Specificity, Reliability, Validity or Responsiveness of a diagnostic test for LE OR gives data to calculate 2x2 table for test (STOP) (Include)

Not a diagnosis study (continue)

5. Is this a study focusing on the efficacy of a non-surgical/non pharmacological treatment for secondary lymphedema?

Yes (continue)

No (STOP)

6. Is this study a:

<input type="checkbox"/> RCT (include)
<input type="checkbox"/> A non-RCT WITH a Control group (include)
<input type="checkbox"/> No control group/subjects act as their own controls (exclude)

DATA ABSTRACTION FORM FOR DIAGNOSTIC STUDIES

Author: _____ RefID: _____ Data Abstractor: _____

Article Type: Reliability Validity Accuracy

Common

<u>Measurement/Test Type</u>
<u>Sample Size</u>
<u>Study Type and Design</u>
<u>Blinding</u>
<u>Inclusion Criteria</u>
<u>Patient Outcomes measured in study (other than reliability/validity)</u>

Validity/ Reliability

<u>Validity and/or Reliability of Test(s) in current study (e.g interrater reliability/convergent validity along with type of statistical tests used)</u>
<u>Measurement Variation- if applicable (e.g Standard error of measurement (SEM) and smallest real difference (SRD))</u>

Accuracy

<u>Index Test</u>
<u>Reference Standard Used (Comparator)</u>
<u>Was index test compared to a Gold Standard?</u>
<u>Sensitivity/Specificity of Index Test (or information to create a 2x2 table)</u>

<u>Psychometric Properties of Index Test mentioned in current study</u>
<u>Time post injury/surgery when patients developed lymphedema</u>
<u>Lymphedema treatment used after specific diagnostic test</u>

DRAFT

DATA ABSTRACTION FORM FOR TREATMENT STUDIES

Author: _____ RefID: _____ Data Abstractor: _____

<u>Type of Treatment</u>
<u>Study Design</u>
<u>Sample Size</u> Intervention: Control:
<u>Inclusion/Exclusion criteria</u>
<u>Criteria used to start treatment</u>
<u>Time of treatment initiation</u>
<u>Time of lymphedema onset</u>
<u>Criteria used to stop therapy</u>
<u>Provider of treatment</u> Details of qualifications/professional training
<u>Comparators in study</u> Are they consistent with usual care?

<p><u>Parameters of treatment</u> (i.e intensity, duration, frequency and setting-home vs. clinic) Intervention Group:</p> <p>Control Group:</p>
<p><u>Patient outcomes</u></p>
<p><u>Was the treatment shown to be effective?</u></p>
<p><u>Length of follow-up in study</u></p>
<p><u>How long were benefits of the treatment maintained?</u></p>
<p><u>Did any harms from the treatment occur?</u></p>

DRAFT

QUALITY SCORE FOR JADAD SCALE AND FOR MODIFIED JADAD SCALE

CRITERIA	RESULT	SCORING	SCORE
Reported as randomized	<input type="radio"/> YES <input type="radio"/> NO	1 point for YES	
Randomization is appropriate	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> NOT DESCRIBED	1 point for YES -1 point for NO	
Double blinding is reported	<input type="radio"/> YES <input type="radio"/> NO	1 point for YES	
Double blinding is appropriate	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> NOT DESCRIBED	1 point for YES -1 point for NO	
Withdrawals are reported by number and reason per arm	<input type="radio"/> YES <input type="radio"/> NO	1 point for YES	
JADAD SCORE			_____ /5
Method used to assess adverse events is described	<input type="radio"/> YES <input type="radio"/> NO	1 point for YES	
Methods of statistical analysis are described	<input type="radio"/> YES <input type="radio"/> NO	1 point for YES	
Inclusion criteria reported	<input type="radio"/> YES <input type="radio"/> NO	1 point for YES in at least one of two criteria	
Exclusion criteria reported	<input type="radio"/> YES <input type="radio"/> NO		
MODIFIED JADAD SCORE			_____ /8

Newcastle-Ottawa Scale (NOS)

1. STUDY TYPE:

- Case control
- Cohort

CASE CONTROL

Selection

2. Is the case definition adequate?

- Yes, with independent validation (e.g. lymphedema determined by lymphoscintigraphy)
- Yes, e.g. record linkage or based on self reports
- No description

3. Representatives of the cases (how were cases selected)

- Consecutive or obviously representative series of cases
- Potential for selection biases or not stated

4. Selection of Controls

- Community controls
- Hospital controls
- No description

5. Definition of Controls

- No history of disease (endpoint)
- No description of source

Comparability

6. Comparability of cases and controls on the basis of the design or analysis

- Study controls for stage of lymphedema
- Study controls time of onset of lymphedema

Exposure

7. Ascertainment of exposure

- Secure record (e.g. surgical record/research records)
- Structured interview where interviewer blind to case/control status
- Interviewer not blinded to case/control status
- Written self report of medical record only
- No description

8. Same method of ascertainment for cases and controls

- Yes
- No

9. Non-Response rate (drop outs)

- Same rate for both groups
- Non respondents described

- Rate different and no designation (description)

COHORT STUDIES

Selection

10. Representativeness of the exposed cohort

- Truly representative of the average secondary lymphedema patient in the community
- Somewhat representative of the average secondary lymphedema patient in the community
- Selected group of users e.g. nurses, volunteers
- No description of the derivation of the cohort

11. Selection of the non exposed cohort

- Drawn from the same community as the exposed cohort
- Drawn from a different source
- No description of the derivation of the non exposed cohort

12. Ascertainment of exposure

- Secure record (e.g. surgical records/clinical records)
- Structured interview
- Written self report
- No description

13. Demonstration that outcome of interest was not present at start of study

- Yes
- No

Comparability

14. Comparability of cohorts on the basis of the design or analysis

- Study controls for stage of lymphedema
- Study controls for time of onset of lymphedema

Outcome

15. Assessment of outcome

- Independent blind assessment
- Record linkage (some other objective measure not encompassed by “independent blind assignment” see above)
- Self report
- No description

16. Was follow-up long enough for outcomes to occur

- Yes (6 weeks +)
- No (less than 6 weeks)

17. Adequacy of follow up of cohorts

- Complete follow up – all subjects accounted for
- Subjects lost to follow up unlikely to introduce bias – small number lost (>80% follow up), or description provided of those lost
- Follow up rate <80% and no description of those lost

- No statement

DRAFT

QUADAS – Quality Assessment Tool for Diagnosis Papers

	Yes	No	Unclear
1. Was the spectrum of patients representative of the patients who will receive the test in practice?			
2. Were selection criteria clearly described?			
3. Is the reference standard likely to correctly classify the target condition?			
4. Is the time period between reference standard and index test short enough to be reasonably sure that the target condition did not change between the tests?			
5. Did the whole sample or a random selection of the sample, receive verification using a reference standard of diagnosis?			
6. Did patients receive the same reference standard independent of the index test results?			
7. Was the reference standard independent of the index test (i.e. the index test did not form part of the reference standard)?			
8. Was the execution of the index test described in sufficient detail to permit replication of the test?			
9. Was the execution of the reference standard described in sufficient detail to permit its replication?			
10. Were the index test results interpreted without knowledge of the results of the reference standard?			
11. Were the reference standard results interpreted without knowledge of the results of the index test?			
12. Were the same clinical data available when test results were interpreted as would be available when the test is used in practice?			
13. Were uninterpretable/ intermediate test results reported?			
14. Were withdrawals from the study explained?			
Comments:			

QUADAS – Quality Assessment Tool for Reliability Diagnosis Papers

	Yes	No	Unclear
1. Were study patients representative of the patients who will receive the test(s) in practice?			
2. Were selection criteria for patients clearly described?			
3. Were correct statistical measures used?			
4. Was execution of test and comparator described in sufficient detail to permit replication in another study?			
5. Were withdrawals from the study explained?			
6. Were intermediate results/incomplete data reported?			
7. Did assessors have adequate professional training to perform test/measurement?			
8. How were raters selected?			
9. Was interval between test-retest appropriate?			
10. Did independent ratings take place within a time frame that would ensure the condition did not change?			
Comments:			

DRAFT

QUADAS – Quality Assessment Tool for Validity Diagnosis Papers

	Yes	No	Unclear
1. Were study patients representative of the patients who will receive the test(s) in practice?			
2. Were selection criteria for patients clearly described?			
3. Were the index test and comparator described in sufficient detail to permit replication in another study?			
4. Were withdrawals from the study explained?			
5. Were intermediate results/incomplete data reported?			
6. Did assessors have adequate professional training to perform test/measurement?			
7. Is the comparator test likely to correctly classify the condition?			
8. Were the correct statistical tests used to measure validity?			
9. Was the time period between the application of the index test and the comparator test short enough to ensure the condition did not change between tests?			
10. Did all patients who received the index test also receive the comparator test?			
11. Were the index and comparator tests performed independently of one another?			
12. Were the results of the index test interpreted without knowledge of the comparator test?			
Comments:			

Appendix C – Excluded Studies

Appendix C - Excluded Studies

Special report: comparative efficacy of different types of pneumatic compression pumps for the treatment of lymphedema. *Tecnologica MAP Supplement* 1998;42-3. PMID:10183361

OVID-Medline

Exclude: Narrative, primary LE, editorial, conference etc.

Adam DJ, Naik J, Hartshorne T, et al. The diagnosis and management of 689 chronic leg ulcers in a single-visit assessment clinic. *Eur J Vasc Endovasc Surg* 2003;25(5):462-8. PMID: 12713787

OVID-Embase

Exclude: Not focusing on efficacy

Anderson L, Hojris I, Anderson J. treatment of breast cancer related lymphedema with or without manual lymphatic drainage: A randomized study. *Eur J Cancer* 1993;35(Suppl 4):S30-S31. PMID:10987238

OVID-CCTR

Exclude: Narrative, primary LE, editorial, conference etc.

Armer JM, Radina ME, Porock D, et al. Predicting breast cancer-related lymphedema using self-reported symptoms. *Nurs Res* 2003;52(6):370-9. PMID: 14639083

OVID-Medline

Exclude: Diagnostic Exploratory Study

Armer JM, Henggeler MH, Brooks CW, et al. The health deviation of post-breast cancer lymphedema: symptom assessment and impact on self-care agency. *Self-Care, Dependent-Care & Nursing* 2008;16(1):14-21. EBSCO-CINAHL

EBSCO-CINAHL

Exclude: Diagnostic Exploratory Study

Badger CM, Peacock JL, Mortimer PS. A randomized, controlled, parallel-group clinical trial comparing multilayer bandaging followed by hosiery versus hosiery alone in the treatment of patients with lymphedema of the limb. *Cancer* 2000;88(12):2832-7. PMID:10870068

OVID-Medline

Exclude: Primary/Secondary not stratified or patients did not have LE (treatment).

Balzarini A, Milella M, Civelli E, et al. Ultrasonography of arm edema after axillary dissection for breast cancer: a preliminary study. *Lymphology* 2001;34:152-5. PMID:11783592

PMID:11783592

Exclude: Diagnostic Exploratory Study

Barclay J, Vestey J, Lambert A, et al. Reducing the symptoms of lymphoedema: is there a role for aromatherapy? *Eur J Oncol Nurs* 2006;10(2):140-9. PMID:16563861

PMID:16563861

OVID-Medline

Exclude: Primary/Secondary not stratified or patients did not have LE (treatment)

Berard A, Zuccarelli F. Test-retest reliability study of a new improved Leg-O-meter, the Leg-O-meter II, in patients

suffering from venous insufficiency of the lower limbs.

Angiology 2000;51(9):711-7. PMID:10999611

OVID-Medline

Exclude: Diagnostic Exploratory Study

Bergan JJ, Sparks S, Angle N. A comparison of compression pumps in the treatment of lymphedema. *Vasc Surg* 1998;32(5):455-62.

OVID-Embase

Exclude: Primary/Secondary not stratified or patients did not have LE (treatment)

Bertelli G, Venturini M, Forno G, et al. Pneumatic compression in postmastectomy lymphedema: a phase II study. *Ann-Oncol* 1990;1(Suppl):30

OVID-CCTR

Exclude: Narrative, primary LE, editorial, conference etc

Bolcal C, Iyem H, Sargin M, et al. Primary and secondary lymphoedema in male patients with oedema in lower limbs. *Phlebologie* 2006;21(3):127-31.

OVID-Embase

Exclude: Investigative Study of Lymph Flow

Boris M, Weindorf S, Lasinski BB. The risk of genital edema after external pump compression for lower limb lymphedema. *Lymphology* 1998;31(1):15-20. PMID: 9561507

OVID-Medline

Exclude: No Control Group-Treatment

Box RC, Reul-Hirche HM, Bullock-Saxton JE, et al. Physiotherapy after breast cancer surgery: results of a randomised controlled study to minimise lymphoedema. *Breast Cancer Res Treat* 2002;75(1):51-64.

PMID:12500934

OVID-Medline

Exclude: Prevention LE

Brauer WJ, Brauer VS. Comparison of standardised lymphoscintigraphy function test and high resolution sonography of the lymphoedema of legs. *Phlebologie* 2008;37(5):247-52.

OVID-Embase

Exclude: Narrative, primary LE, editorial, conference etc.

Brorson H, Svensson H. Liposuction combined with controlled compression therapy reduces arm lymphedema more effectively than controlled compression therapy alone. *Plas Reconstr Surg* 1998;102(4):1058-67.

PMID: 9734424

OVID-Medline

Exclude: Narrative, primary LE, editorial, conference etc.

Brorson H, Svensson H, Norrgren K, et al. Liposuction reduces arm lymphedema without significantly altering the already impaired lymph transport. *Lymphology* 1998;31(4):156-72.

PMID:9949387

OVID-Medline

Exclude: Narrative, primary LE, editorial, conference etc.

Burnand KG, McGuinness CL, Lagattolla NR, et al. Value of isotope lymphography in the diagnosis of lymphoedema of the leg. *Br J Surg* 2002;89(1):74-8. PMID:11851667

OVID-Medline

Exclude: Narrative, primary LE, editorial, conference etc.

Cambria RA, Gloviczki P, Naessens JM, et al. Noninvasive evaluation of the lymphatic system with lymphoscintigraphy: a prospective, semiquantitative analysis in 386 extremities. *J Vasc Surg* 1993;18(5):773-82. PMID:8230563

OVID-Medline

Exclude: Primary/Secondary not stratified or patients did not have LE (diagnosis)

Cao W, Chang T, Gan J. Effects of microwave heating on systemic and local infiltrating lymphocytes in patients with chronic limb lymphedema. *Chin Med J* 1999;112(9):822-7. PMID:11717954

OVID-Medline

Exclude: Primary/Secondary not stratified or patients did not have LE (treatment)

Carroll D, Rose K. Treatment leads to significant improvement. Effect of conservative treatment on pain in lymphoedema. *Prof Nurse* 1992;8(1):32-3. PMID:1480641

OVID-Medline

Exclude: Not able to retrieve

Casley-Smith JR. Measuring and representing peripheral oedema and its alterations. *Lymphology* 1994;27(2):56-70. PMID:8078362

OVID-Medline

Exclude: Diagnostic Exploratory Study

Chang TS, Gan JL, Fu KD, et al. The use of 5,6 benzo-[alpha]-pyrone (coumarin) and heating by microwaves in the treatment of chronic lymphedema of the legs. *Lymphology* 1996;29(3):106-11. PMID:8897354

OVID-Medline

Exclude: No Control Group-Treatment

Ciocon JO, Galindo-Ciocon D, Galindo DJ. Raised leg exercises for leg edema in the elderly. *Angiology* 1995;46(1):19-25. PMID:7818153

OVID-Medline

Exclude: No Control Group-Treatment

Cornish BH, Chapman M, Thomas BJ, et al. Early diagnosis of lymphedema in postsurgery breast cancer patients. *Ann N Y Acad Sci* 2000;904:571-5. PMID:10865807

OVID-Medline

Exclude: Diagnostic Exploratory Study

Cornish BH, Thomas BJ, Ward LC, et al. A new technique for the quantification of peripheral edema with application

in both unilateral and bilateral cases. *Angiology* 2002;53(1):41-7. PMID:11863308

OVID-Medline

Exclude: Diagnostic Exploratory Study

Damstra RJ, Brouwer ER, Partsch H. Controlled, comparative study of relation between volume changes and interface pressure under short-stretch bandages in leg lymphedema patients. *Dermatol Surg* 2008;34(6):773-8. PMID:18336577

OVID-Medline

Exclude: Primary/Secondary not stratified or patients did not have LE (treatment)

Damstra RJ, Brouwer ER, Partsch H. Controlled, comparative study of relation between volume changes and interface pressure under short-stretch bandages in leg lymphedema patients. *Dermatol Surg* 2008;34(6):773-8. OVID-CCTR

Exclude: Narrative, primary LE, editorial, conference etc.

Dimakakos E, Koureas A, Koutoulidis V, et al. Interstitial magnetic resonance lymphography: is it a new method for the diagnosis of lymphedema? *Int Angiol* 2007;26(4):367-71. PMID:18091705

OVID-Medline

Exclude: Diagnostic Exploratory Study

Dimakakos E, Koureas A, Koutoulidis V, et al. Interstitial magnetic resonance lymphography: the clinical effectiveness of a new method. *Lymphology* 2008;41(3):116-25. PMID:19013879

OVID-Medline

Exclude: Primary/Secondary not stratified or patients did not have LE (diagnosis)

Dimakakos PB, Stefanopoulos T, Antoniadis P, et al. MRI and ultrasonographic findings in the investigation of lymphedema and lipedema. *Int Surg* 1997;82(4):411-6. PMID:9412843

OVID-Medline

Exclude: Primary/Secondary not stratified or patients did not have LE (diagnosis)

Drinan KJ, Wolfson PM, Steinitz D, et al. Duplex imaging in lymphedema. *J Vasc Tech* 1993;17(1):23-6.

OVID-Embase

Exclude: Diagnostic Exploratory Study

Durand A, Thibaut G. Microcirculation variations during lymphedema. *Eur J Lymphology and Relat Probl* 2003;10(37-38):12-4.

OVID-Embase

Exclude: Primary/Secondary not stratified or patients did not have LE (diagnosis)

Fiaschi E, Francesconi G, Fiumicelli S, et al. Manual lymphatic drainage for chronic post-mastectomy lymphoedema treatment. *Panminerva Med* 1998;40(1):48-50. PMID:9573754

OVID-Medline

Exclude: No Control Group-Treatment

Frischenschlager O, Fialka V, Schindt L. Comparison of two rehabilitation programmes for lymphedema following ablatio mammae: emotional well-being. *Eur J Phys Med Rehabil* 1991;1(5):123-5.

OVID-AMED

Exclude: Primary/Secondary not stratified or patients did not have LE (treatment)

Garfein ES, Borud LJ, Warren AG, et al. Learning from a lymphedema clinic: an algorithm for the management of localized swelling. *Plas Reconstr Surg* 2008;121(2):521-8. PMID:18300971

OVID-Medline

Exclude: Primary/Secondary not stratified or patients did not have LE (diagnosis)

Godoy JM, Silva SH, Godoy MF. Sensitivity and specificity of combined perimetric and volumetric evaluations in the diagnosis of arm lymphedema. *Prague Med Rep* 2007;108(3):243-7. PMID:18399061

OVID-Medline

Exclude: Not able to retrieve

Gothard L. Phase II Randomized Study of Hyperbaric Oxygen Therapy Versus Standard Management in Women With Chronic Arm Lymphedema After Radiotherapy for Early Breast Cancer. *Physician Data Query (PDQ)* 2004. OVID-CCTR

Exclude: Narrative, primary LE, editorial, conference etc.

Gozza A, Del Mastro L, Dini D, et al. Pneumatic compression vs control in postmastectomy lymphedema: A phase III randomized trial. *Tumori* 1996;82(Suppl):91

OVID-CCTR

Exclude: Narrative, primary LE, editorial, conference etc.

Harfouche JN, Theys S, Scavee V, et al. Venous calibre reduction after intermittent pneumatic compression. *Phlebology* 2005;20(1):38-42.

OVID-Embase

Exclude: Primary/Secondary not stratified or patients did not have LE (treatment)

Haslett ML, Aitken MJ. Evaluating the effectiveness of a compression sleeve in managing secondary lymphoedema. *J Wound Care* 2002;11(10):401-4. PMID:12494832

OVID-Medline

Exclude: Narrative, primary LE, editorial, conference etc.

Idy-Peretti I, Bittoun J, Alliot FA, et al. Lymphedematous skin and subcutis: in vivo high resolution magnetic resonance imaging evaluation. *J Invest Dermatol* 1998;110(5):782-7. PMID:9579546

OVID-Medline

Exclude: Primary/Secondary not stratified or patients did not have LE (diagnosis)

Jamison LJ. Aquatic therapy for the patient with lymphedema. *J Aqua Phys Ther* 2005;13(1):9-12. Publisher

URL: www.cinahl.com/cgi-bin/refsvc?jid=2196&accno=2005075952;http://search.ebscohost.com/login.aspx?direct=true&db=cin20&AN=2005075952&site=ehost-live

EBSCO-CINAHL

Exclude: Not able to retrieve

Kataoka M, Kawamura M, Hamada K, et al. Quantitative lymphoscintigraphy using ⁹⁹Tcm human serum albumin in patients with previously treated uterine cancer. *Br J Radiol* 1991;64(768):1119-21.

PMID:1773271

OVID-Medline

Exclude: Diagnostic Exploratory Study

King TI, Droessler JL. Physical properties of short-stretch compression bandages used to treat lymphedema. *Am J Occup Ther* 2001;55(5):573-6.

PMID:14601819

OVID-Medline

Exclude: Narrative, primary LE, editorial, conference etc.

Larcos G, Foster DR. Interpretation of lymphoscintigrams in suspected lymphoedema: contribution of delayed images. *Nucl Med Commun* 1995;16(8):683-6.

PMID:7491181

OVID-Medline

Exclude: Primary/Secondary not stratified or patients did not have LE (diagnosis)

Lette J. A simple and innovative device to measure arm volume at home for patients with lymphedema after breast cancer. *J Clin Oncol* 2006;24(34):5434-40.

PMID:17135645

OVID-Medline

Exclude: Primary/Secondary not stratified or patients did not have LE (diagnosis)

Liu N, Wang C, Sun M. Noncontrast three-dimensional magnetic resonance imaging vs lymphoscintigraphy in the evaluation of lymph circulation disorders: A comparative study. *J Vasc Surg* 2005;41(1):69-75. PMID:15696047

OVID-Medline

Exclude: Narrative, primary LE, editorial, conference etc.

Lohrmann C, Kautz O, Speck O, et al. Chronic lymphedema: Detected with high-resolution magnetic resonance lymphangiography. *J Comput Assist Tomogr* 2006;30(4):688-Aug PMID:16845303

OVID-Medline

Exclude: Narrative, primary LE, editorial, conference etc.

Matthews KL, Smith JG. Effectiveness of modified complex physical therapy for lymphoedema treatment. *Aust J Physiother* 1996;42(4):323-8. PMID:11676665

OVID-Embase

Exclude: Primary/Secondary not stratified or patients did not have LE (treatment)

Mayrovitz HN, Sims N, Litwin B, et al. Foot volume estimates based on a geometric algorithm in comparison to

water displacement. *Lymphology* 2005;38(1):20-7.
PMID:15856683
OVID-Medline
Exclude: Primary/Secondary not stratified or patients did not have LE (diagnosis)

Mayrovitz HN, Sims N, Brown-Cross D, et al. Transcutaneous oxygen tension in arms of women with unilateral postmastectomy lymphedema. *Lymphology* 2005;38(2):81-6. PMID:16184817
OVID-Medline
Exclude: No Control Group-Treatment

Mayrovitz HN, Sims N, Hill CJ, et al. Hand volume estimates based on a geometric algorithm in comparison to water displacement. *Lymphology* 2006;39(2):95-103. PMID:16910100
OVID-Medline
Exclude: Primary/Secondary not stratified or patients did not have LE (diagnosis)

Mayrovitz HN. Assessing local tissue edema in postmastectomy lymphedema. *Lymphology* 2007;40(2):87-94. PMID:17853619
OVID-Medline
Exclude: Diagnostic Exploratory Study

Mayrovitz HN, Davey S, Shapiro E. Suitability of single tissue dielectric constant measurements to assess local tissue water in normal and lymphedematous skin. *Clin Physiol Funct Imaging* 2009;29(2):123-7. PMID: 19076729
OVID-Embase
Exclude: Diagnostic Exploratory Study

Mondry TE, Johnstone PA. Manual lymphatic drainage for lymphedema limited to the breast. *J Surg Oncol* 2002;81(2):101-4. PMID:12355412
OVID-Medline
Exclude: Narrative, primary LE, editorial, conference etc.

Monnin-Delhom ED, Gallix BP, Achard C, et al. High resolution unenhanced computed tomography in patients with swollen legs. *Lymphology* 2002;35(3):121-8. PMID:12363222
OVID-Medline
Exclude: Primary/Secondary not stratified or patients did not have LE (diagnosis)

O'Neill J, Beatus J. The effects of complete decongestive physical therapy treatment on edema reduction, quality of life, and functional ability of persons with upper extremity lymphedema. *J Womens Health Phys Ther* 2006;30(1):5-10. Publisher URL: www.cinahl.com/cgi-bin/refsvc?jid=3031&accno=2009174609;
<http://search.ebscohost.com/login.aspx?direct=true&db=cin20&AN=2009174609&site=ehost-live>
EBSCO-CINAHL
Exclude: No Control Group-Treatment

Ohkuma M. Lymphedema treated by microwave and elastic dressing. *Int J Dermatol* 1992;31(9):660-3. PMID:1459769

OVID-Medline
Exclude: Primary/Secondary not stratified or patients did not have LE (treatment)

Pecking AP, Alberini JL, Wartski M, et al. Relationship between lymphoscintigraphy and clinical findings in lower limb lymphedema (LO): toward a comprehensive staging. *Lymphology* 2008;41(1):1-10. PMID:18581953
OVID-Medline
Exclude: Primary/Secondary not stratified or patients did not have LE (diagnosis)

Pille NB, Swdborg I, Wilking N, et al. Short-term manual lymph drainage treatment and maintenance therapy for post-mastectomy lymphoedema. *Lymphology* 1994;27(suppl):589-92.
Exclude: Narrative, primary LE, editorial, conference etc.

Piller NB, Thelander A. Low level laser therapy: A cost effective treatment to reduce post mastectomy lymphoedema. *Lymphology* 1996;29(suppl 1):297-300.
Exclude: Narrative, primary LE, editorial, conference etc.

Pohjola RT, Pekanmaki K, Kolari PJ. Intermittent pneumatic compression of lymphoedema: Evaluation of two clinical methods. *Eur J Lymphology Relat Probl* 1995;5(19):87-90.
OVID-Embase
Exclude: Not able to retrieve

Proby CM, Gane JN, Joseph AE, et al. Investigation of the swollen limb with isotope lymphography. *Br J Dermatol* 1990;123(1):29-37. PMID:2390494
OVID-Medline
Exclude: Investigative Study of Lymph Flow

Richards TB, McBiles M, Collins PS. An easy method for diagnosis of lymphedema. *Ann Vasc Surg* 1990;4(3):255-9. PMID:2340247
OVID-Medline
Exclude: Investigative Study of Lymph Flow

Rijke AM, Croft BY, Johnson RA, et al. Lymphoscintigraphy and lymphedema of the lower extremities. *J Nucl Med* 1990;31(6):990-8. PMID:2348245
OVID-Medline
Exclude: Primary/Secondary not stratified or patients did not have LE (diagnosis)

Roberts CC, Levick JR, Stanton AW, et al. Assessment of truncal edema following breast cancer treatment using modified Harpenden skinfold calipers. *Lymphology* 1995;28(2):78-88. PMID:7564495
OVID-Medline
Exclude: Diagnostic Exploratory Study

Sagen A, Karesen R, Risberg MA. The reliability of a simplified water displacement instrument: a method for measuring arm volume. *Arch Phys Med Rehabil* 2005;86(1):86-9. PMID:15640996
EBSCO-CINAHL

Exclude: Diagnostic Exploratory Study

Sander AP, Hajer NM, Hemenway K, et al. Upper-extremity volume measurements in women with lymphedema: a comparison of measurements obtained via water displacement with geometrically determined volume. *Phys Ther* 2002;82(12):1201-12. PMID:12444879

OVID-Medline

Exclude: Primary/Secondary not stratified or patients did not have LE (diagnosis)

Sitzia J, Sobrido L. Measurement of health-related quality of life of patients receiving conservative treatment for limb lymphoedema using the Nottingham Health Profile. *Qual Life Res* 1997;6(5):373-84. PMID:9290304

OVID-Medline

Exclude: No Control Group-Treatment

Stanton AWB, Northfield JW, Holroyd B, et al. Validation of an opeoelectronic lomb volumeter (perometer).

Lymphology 1997;30(2):77-97.

OVID-Embase

Exclude: Diagnostic exploratory study

Suga K, Kume N, Matsunaga N, et al. Assessment of leg oedema by dynamic lymphoscintigraphy with intradermal injection of technetium-99m human serum albumin and load produced by standing. *Eur J Nucl Med* 2001;28(3):294-303. PMID:11315596

OVID-Medline

Exclude: Investigative Study of Lymph Flow

Szolnoky G, Lakatos B, Keskeny T, et al. Advantage of combined decongestive lymphatic therapy over manual lymph drainage: A pilot study. *Lymphology* 2002;35(1):277-282

Exclude: Narrative, primary LE, editorial, conference etc.

Szuba A. Literature watch. The addition of manual lymph drainage to compression therapy for breast cancer related lymphedema: a randomized controlled trial. *Lymphat Res Biol* 2005;3(1):36-41. PMID:15770084

OVID-Medline

Exclude: Narrative, primary LE, editorial, conference etc.

Ter SE, Alavi A, Kim CK, et al. Lymphoscintigraphy. A reliable test for the diagnosis of lymphedema. *Clin Nucl Med* 1993;18(8):646-54. PMID:8403693

OVID-Medline

Exclude: Narrative, primary LE, editorial, conference etc.

Tidhar D, Drouin J, Shimony A. Aqua lymphatic therapy in managing lower extremity lymphedema. *J Support Oncol* 2007;5(4):179-83. PMID:17500505

OVID-Medline

Exclude: Narrative, primary LE, editorial, conference etc.

Unno N, Inuzuka K, Suzuki M, et al. Preliminary experience with a novel fluorescence lymphography using indocyanine green in patients with secondary lymphedema. *J Vasc Surg* 2007;45(5):1016-21. PMID:17391894

OVID-Medline

Exclude: Diagnostic Exploratory Study

Venturini M, Dini D, Forno G, et al. Electrically stimulated drainage (ESD) versus control: a randomized study of treatment for mild post mastectomy lymphedema (PML). *J Cancer Res Clin Oncol* 1990;116(Suppl):55.

OVID-CCTR

Exclude: Narrative, primary LE, editorial, conference etc

Venturini M, Forno G, Bertelli G, et al. Compression therapy in postmastectomy lymphedema (PML): results of our phase II-III studies and future research lines. *Breast Cancer Res Treat* 1990;16(2):188.

OVID-CCTR

Exclude: Narrative, primary LE, editorial, conference etc.

Verlooy H, Biscompte JP, Nieuborg L, et al. Noninvasive evaluation of lympho-venous anastomosis in upper limb lymphedema. Value of quantitative lymphoscintigraphic examinations. *Eur J Lymphology Relat Probl* 1997;6(21):27-33.

OVID-Embase

Exclude: Not able to retrieve

Ward LC, Bunce IH, Cornish BH, et al. Multi-frequency bioelectrical impedance augments the diagnosis and management of lymphoedema in post-mastectomy patients. *Eur J Clin Invest* 1992;22(11):751-4. PMID:1478244

OVID-Medline

Exclude: Diagnostic Exploratory Study

Warren AG, Janz BA, Slavin SA, et al. The use of bioimpedance analysis to evaluate lymphedema. *Ann Plast Surg* 2007;58(5):541-3. PMID:17452840

OVID-Medline

Exclude: Diagnostic Exploratory Study

Wheatley DC, Wastie ML, Whitaker SC, et al. Lymphoscintigraphy and colour Doppler sonography in the assessment of leg oedema of unknown cause. *Br J Radiol* 1996;69(828):1117-24. PMID:9135466

OVID-Medline

Exclude: Diagnostic Exploratory Study

Wienert V, Gerlach H, Gallenkemper G, et al. Medical compression stocking (MCS). [German, English]. *Journal of the German Society of Dermatology* 2008;6(5):410-5. PMID: 18093215

OVID-Embase

Exclude: Narrative, primary LE, editorial, conference etc.

Woods M. An audit of swollen limb measurements. *Nursing Standard* 1994;9(5):24-6. Publisher URL:

www.cinahl.com/cgi-bin/refsvc?jid=530&accno=1995004229;http://search.ebscohost.com/login.aspx?direct=true&db=cin20&AN=1995004229&site=ehost-live PMID: 7999565

EBSCO-CINAHL

Exclude: Not able to retrieve

Yuan Z, Chen L, Luo Q, et al. The role of radionuclide lymphoscintigraphy in extremity lymphedema. Ann Nucl Med 2006;20(5):341-4. PMID:16878705
OVID-Medline
Exclude: Primary/Secondary not stratified or patients did not have LE (diagnosis)

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