

# EVIDENCE BASED STATEMENT

DOMAIN **09**, Statement **07**

TOPIC: “Bandages indication in venous and lymphatic disease management”

## SEARCH TERMS & SOURCES

(bandage) AND ((venous) OR (lymphatic))

### INCLUSION CRITERIA

- Lower limb only
- Systematic Reviews, Meta-Analysis, Reviews, RCI
- Publication < 10 years, only ENG

## SEARCH RESULT BEFORE - AFTER SELECTION

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### PERTINENT LITERATURE NOT IDENTIFIED BY THE LITERATURE SEARCH

1. Moffatt CJ, Burian E, Karlsmark T, et al. Factors Predicting Limb Volume Reduction Using Compression Bandaging Within Decongestive Lymphatic Therapy in Lymphedema: A Multicountry Prospective Study. *Lymphat Res Biol.* 2021 Oct;19(5):412-422.
2. Cardoso LV, De Fátima Guerreiro Godoy M, Czorny RC, De Godoy JM. Using bioelectrical impedance analysis to compare the treatment of edema with the Unna's boot and noncompression in individuals with venous ulcers. *Journal of Vascular Nursing* 2019;37(1):58-63
3. Giancesini S. Global guidelines trends and controversies in lower limb venous and lymphatic disease: Narrative literature revision and experts' opinions following the vWINTER international meeting in Phlebology, Lymphology & Aesthetics, 23-25 January 2019. *Phlebology.* 2019 Sep;34(1 Suppl):4-66.
4. Mosti G, Cavezzi A. Compression therapy in lymphedema: Between past and recent scientific data. *Phlebology.* 2019 Sep;34(8):515-522.
5. Chang DW, Masia J, Garza R 3rd, et al. Lymphedema: Surgical and Medical Therapy. *Plast Reconstr Surg.* 2016 Sep;138(3 Suppl):209S-218S.
6. Mosti G, Partsch H. Bandages or double stockings for the initial therapy of venous oedema? A randomized, controlled pilot study. *Eur J Vasc Endovasc Surg.* 2013 Jul;46(1):142-8.
7. Badger CM, Peacock JL, et al. 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 Jun 15;88(12):2832-7.
8. Moffatt C. Variability of pressure provided by sustained compression. *Int Wound J.* 2008 Jun;5(2):259-65.

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## Domain 9; Statement 7

### IDENTIFIED REFERENCES

(max best 20, from the most recent down)

1. Rezende GC, O'Flynn B, O'Mahony C. Smart Compression Therapy Devices for Treatment of Venous Leg Ulcers: A Review. *Adv Healthc Mater.* 2022 Jun 22:e2200710.
2. Tai HQ, Chaen LCR, Boey J, et al. A dual pressure indicator, two-layer compression system for treatment of venous leg ulcers: a review. *J Wound Care.* 2021 Dec 1;30(Sup12):S6-S12
3. Shi C, Dumville JC, Cullum N, et al. Compression bandages or stockings versus no compression for treating venous leg ulcers. *Cochrane Database Syst Rev.* 2021 Jul 26;7(7):CD013397.
4. Paranhos T, Paiva CSB, Cardoso FCI, et al. Systematic review and meta-analysis of the efficacy of Unna boot in the treatment of venous leg ulcers. *Wound Repair Regen.* 2021 May;29(3):443-451.
5. Fulcher E, Gopee N. Effect of different compression bandaging techniques on the healing rate of venous leg ulcers: a literature review. *Br J Community Nurs.* 2020 Jun 2;25(Sup6):S20-S26.
6. Goka EA, Poku E, Thokala P, Sutton A. Clinical and Economic Impact of a Two-layer Compression System for the Treatment of Venous Leg Ulcers: A Systematic Review. *Wounds.* 2020 Jan;32(1):11-21.
7. Boxall SL, Carville K, Leslie GD, Jansen SJ. Controlling compression bandaging pressure in leg ulcer research trials: A summary of the literature. *Phlebology.* 2019 Sep;34(8):501-514.
8. Cardoso LV, Godoy JMP, Godoy MFG, et al. Compression therapy: Unna boot applied to venous injuries: an integrative review of the literature. *Rev Esc Enferm USP.* 2018 Nov 29;52:e03394.
9. De Carvalho MR, Peixoto BU, Silveira IA, Oliveria BGRB. A Meta-analysis to Compare Four-layer to Short-stretch Compression Bandaging for Venous Leg Ulcer Healing. *Ostomy Wound Manage.* 2018 May;64(5):30-37.
10. Gould LJ, Dosi G, Couch K, et al. Modalities to Treat Venous Ulcers: Compression, Surgery, and Bioengineered Tissue. *Plast Reconstr Surg.* 2016 Sep;138(3 Suppl):199S-208S.
11. Nelson EA, Bell-Syer SE. Compression for preventing recurrence of venous ulcers. *Cochrane Database Syst Rev.* 2014 Sep 9;2014(9):CD002303.

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### TEXT FOR INCLUSION IN THE DOCUMENT

DOMAIN 09, Statement 07, TOPIC: “Bandages indication in venous and lymphatic disease management”

Up to our knowledge, international guidelines are not indicating superiority of bandaging over graduated compression stockings in venous ulcer or lymphedema setting. No superiority of a bandaging technique over another has been reported either, apart multicomponent vs single component in venous ulcer treatment.

**[Gianesini S. Global guidelines trends and controversies in lower limb venous and lymphatic disease: Narrative literature revision and experts' opinions following the vWINter international meeting in Phlebology, Lymphology & Aesthetics, 23-25 January 2019. Phlebology. 2019 Sep;34(1 Suppl):4-66].**

A recent Cochrane review highlighted the importance of compression in venous ulcer healing, reporting a faster and wider resolution, with potential benefits also in pain control and disease specific quality of life. Yet, not enough data have been identified to conclude on the superiority of a specific compression type, both in terms of clinical and cost-effectiveness aspects.

**\*[Shi C, Dumville JC, Cullum N, et al. Compression bandages or stockings versus no compression for treating venous leg ulcers. Cochrane Database Syst Rev. 2021 Jul 26;7(7):CD013397].**

Compression is the pillar also of lymphedema management, yet proper knowledge of the available literature leads to consider not only the pressure but also the applied stiffness.

**[Mosti G, Cavezzi A. Compression therapy in lymphedema: Between past and recent scientific data. Phlebology. 2019 Sep;34(8):515-522].**

Not recent literature pointed out the possible advantages of an initial phase of bandage use followed by stockings application, but more solid data are needed before delivering high grade recommendations.

**[Badger CM, Peacock JL, et al. 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 Jun 15;88(12):2832-7].**

Training in bandaging is of paramount importance to guarantee proper clinical effects as well as homogenous scientific data collection: a significant interface pressure variability can be caused by inappropriate bandaging technique.

**[Moffatt C. Variability of pressure provided by sustained compression. Int Wound J. 2008 Jun;5(2):259-65].**

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### STATEMENT FOR PUBLIC EVIDENCE-BASED AWARENESS

DOMAIN 09, Statement 07

“Bandages with different features can be helpful in customizing a compression therapy on the specific need of the venous-lymphatic patient.  
Only expert professionals can apply bandages properly and at the desired pressure level”

### SELECTED REFERENCES

1. Giancesini S. Global guidelines trends and controversies in lower limb venous and lymphatic disease: Narrative literature revision and experts' opinions following the vWINTER international meeting in Phlebology, Lymphology & Aesthetics, 23-25 January 2019. *Phlebology*. 2019 Sep;34(1 Suppl):4-66
2. Shi C, Dumville JC, Cullum N, et al. Compression bandages or stockings versus no compression for treating venous leg ulcers. *Cochrane Database Syst Rev*. 2021 Jul 26;7(7):CD013397
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4. Badger CM, Peacock JL, et al. 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 Jun 15;88(12):2832-7
5. Moffatt C. Variability of pressure provided by sustained compression. *Int Wound J*. 2008 Jun;5(2):259-65

### identified LITERATURE BIAS

lacking of Interface pressure measurement

### SUGGESTED NEXT LINES OF RESEARCH

Head to head comparison between stockings and bandages in homogenous study populations