

# EVIDENCE BASED STATEMENT

DOMAIN **01**, Statement **01**

TOPIC: “Lower limb chronic venous disease and/or lymphatic disease burden”

## SEARCH TERMS & SOURCES

Query used for the literature search / Search engines used (PubMed, Embase, Cinhal and the Cochrane)  
((varicose vein[MeSH Terms]) OR (lymphedema[MeSH Terms])) AND (prevalence[MeSH Terms])

### INCLUSION CRITERIA

- Lower limb only
- Reviews
- Publication < 10 years, only ENG

## SEARCH RESULT BEFORE - AFTER SELECTION

49 (before) - 24 (after selection)

### PERTINENT LITERATURE NOT IDENTIFIED BY THE LITERATURE SEARCH

1. Rockson SG. Advances in Lymphedema. Circ Res. 2021 Jun 11;128(12):2003-2016.
2. Salim S, Machin M, Patterson BO, et al. Global Epidemiology of Chronic Venous Disease: A Systematic Review With Pooled Prevalence Analysis. Ann Surg. 2021 Dec 1;274(6):971-976.
3. Nicolaidis AN, Labropoulos N. Burden and Suffering in Chronic Venous Disease. Adv Ther. 2019;36(Suppl 1):1-4.
4. Davies A. The Seriousness of Chronic Venous Disease: A Review of Real-World Evidence. Adv Ther (2019) 36:S5–S12
5. Dua A, Desai SS, Heller JA. The Impact of Race on Advanced Chronic Venous Insufficiency. Ann Vasc Surg. 2016 Jul;34:152-6.
6. Robertson L, Lee AJ, Evans CJ, et al. Incidence of chronic venous disease in the Edinburgh Vein Study. J Vasc Surg VLDISORD. 2013 Jan;1(1):59-67.

# EVIDENCE BASED STATEMENT

## Domain 1; Statement 1

### IDENTIFIED REFERENCES

(max best 20, from the most recent down)

1. Alsaigh T, Fukaya E. Varicose Veins and Chronic Venous Disease. *Cardiol Clin*. 2021 Nov;39(4):567-581.
2. Rockson SG. Advances in Lymphedema. *Circ Res*. 2021 Jun 11;128(12):2003-2016.
3. \*Salim S, Machin M, Patterson BO, et al. Global Epidemiology of Chronic Venous Disease: A Systematic Review With Pooled Prevalence Analysis. *Ann Surg*. 2021 Dec 1;274(6):971-976.
4. Bizhani N, Hashemi Hafshejani S, Mohammadi N, et al. Lymphatic filariasis in Asia: a systematic review and meta-analysis. *Parasitol Res*. 2021 Feb;120(2):411-422
5. Davies A. The Seriousness of Chronic Venous Disease: A Review of Real-World Evidence. *Adv Ther (2019)* 36:S5–S12
6. Nicolaides AN, Labropoulos N. Burden and Suffering in Chronic Venous Disease. *Adv Ther*. 2019;36(Suppl 1):1-4. doi:10.1007/s12325-019-0882-6
7. \*Moffatt C, Keeley V, Quere I. The Concept of Chronic Edema-A Neglected Public Health Issue and an International Response: The LIMPRINT Study. *Lymphat Res Biol*. 2019 Apr;17(2):121-126
8. Davies A. The Seriousness of Chronic Venous Disease: A Review of Real-World Evidence. *Adv Ther (2019)* 36:S5–S12
9. Lay-Flurrie K. Ensuring appropriate and timely management of leaky legs. *Br J Community Nurs*. 2018 Apr 1;23(Sup4):S6-S8.
10. Dua A, Desai SS, Heller JA. The Impact of Race on Advanced Chronic Venous Insufficiency. *Ann Vasc Surg*. 2016 Jul;34:152-6.
11. Onida S, Davies AH. Predicted burden of venous disease. *Phlebology*. 2016 Mar;31(1 Suppl):74-9.
12. Eberhardt RT, Raffetto JD. Chronic venous insufficiency. *Circulation*. 2014 Jul 22;130(4):333-46.
13. Robertson LA, Evans CJ, Lee AJ, Allan PL, Ruckley CV, Fowkes FG. Incidence and risk factors for venous reflux in the general population: Edinburgh Vein Study. *Eur J Vasc Endovasc Surg*. 2014 Aug;48(2):208-14
14. Robertson L, Lee AJ, Evans CJ, Boghossian S, Allan PL, Ruckley CV, Fowkes FG. Incidence of chronic venous disease in the Edinburgh Vein Study. *J Vasc Surg Venous Lymphat Disord*. 2013 Jan;1(1):59-67.
15. Moore HM, Lane TR, Thapar A, et al. The European burden of primary varicose veins. *Phlebology*. 2013 Mar;28 Suppl 1:141-7.

# EVIDENCE BASED STATEMENT

## Domain 1; Statement 1

### TEXT FOR INCLUSION IN THE DOCUMENT

(300 words, not counting the references)

DOMAIN 01, Statement 01, TOPIC: “Lower limb chronic venous disease and/or lymphatic disease burden”

Lower limb chronic venous disease (CVD) prevalence worldwide is high and variably reported, ranging from 1 to 73% of women and from 2 to 56% of men.

**[Alsaigh T, Fukaya E Varicose Veins and Chronic Venous Disease. Cardiol Clin. 2021 Nov;39(4):567-581].**

Racial factors influence the disease manifestation. African-American race affected by CVD demonstrated more advanced stages at a younger age compared with the Caucasian counterpart.

**[Dua A, Desai SS, Heller JA. The Impact of Race on Advanced Chronic Venous Insufficiency. Ann Vasc Surg. 2016 Jul;34:152-6].**

The prevalence of CEAP class C2 disease has been reported highest in Western Europe and lowest in the Middle East and Africa.

CVD prevalence has been found higher in female gender, but contradictory outcomes have been published based also on the assessed disease stage, with male gender potentially presenting even higher prevalence of milder CVD.

**[Alsaigh T, Fukaya E Varicose Veins and Chronic Venous Disease. Cardiol Clin. 2021 Nov;39(4):567-581]**

**\*[Salim S, Machin M, Patterson BO, et al. Global Epidemiology of Chronic Venous Disease: A Systematic Review With Pooled Prevalence Analysis. Ann Surg. 2021 Dec 1;274(6):971-976].**

Significant methodology differences across the epidemiology studies leads to the need of further proper investigations to assess the real burden of the disease around the globe.

Further research studies should also address the coexistence of vein & lymphatic drainage impairment.

Health and non-health professionals must be aware that a lymphedema condition can, independently or not, coexist with a vein drainage issue. Indeed, lymphedema remains a “hidden epidemic” and scientific as well as public health attention should be addressed to both the primary and secondary causes of it, including cancer, trauma and iatrogenic related ethiology

Prevalence data show how almost 40% of the affected population might be undertreated: the increase in the related awareness and proper management is of paramount importance considering also the possible morbidity and mortality associated with lymphatic complications, such as cellulitis.

**\*[Moffatt C, Keeley V, Quere I. The Concept of Chronic Edema-A Neglected Public Health Issue and an International Response: The LIMPRINT Study. Lymphat Res Biol. 2019 Apr;17(2):121-126].**

# EVIDENCE BASED STATEMENT

## Domain 1; Statement 1

### STATEMENT FOR PUBLIC EVIDENCE-BASED AWARENESS

DOMAIN 01, Statement 01

**“More than 50% of the adults can present leg vein and/or lymphatic issues”**

### 4 SELECTED REFERENCES

(indicate with an asterix the most important one or two references, giving priority to **Meta-analysis, Systematic Review**)

1. Alsaigh T, Fukaya E. Varicose Veins and Chronic Venous Disease. *Cardiol Clin.* 2021 Nov;39(4):567-581.
2. Dua A, Desai SS, Heller JA. The Impact of Race on Advanced Chronic Venous Insufficiency. *Ann Vasc Surg.* 2016 Jul;34:152-6.
3. \*Salim S, Machin M, Patterson BO, et al. Global Epidemiology of Chronic Venous Disease: A Systematic Review With Pooled Prevalence Analysis. *Ann Surg.* 2021 Dec 1;274(6):971-976.
4. \*Moffatt C, Keeley V, Quere I. The Concept of Chronic Edema-A Neglected Public Health Issue and an International Response: The LIMPRINT Study. *Lymphat Res Biol.* 2019 Apr;17(2):121-126

### identified LITERATURE BIAS

1. Methodology and study population heterogeneity in CVD epidemiology assessment.
2. Lack of epidemiology studies in lower limb lymphedema primary and secondary lymphedema.

### SUGGESTED NEXT LINES OF RESEARCH

1. Multiracial CVD burden assessment
2. Coexistence of vein-lymphatic lower limb drainage impairment