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SUGGESTED SCIENTIFIC READINGS before the

10th international interuniversity meeting
in Phlebology, Lymphology & Aesthetics



February, 3-5, 2022

Dear meeting attendees, dear all,

On behalf of the **Scientific Writing Committee** involved in the v-WINter DUBAI Document on “venous-lymphatic evidence-based communication”, please find herein a list of suggested readings to warm-up the discussions planned on

January 22 ONLINE on v-CONNECT

(free registration here: <https://vconnect.vwinfoundation.com>) &

IN PERSON on February 3-5 in DUBAI, during the Universal EXPO
(<https://vwinfoundation.com/vwinter-dubai-2022/>).

For all the domains, the **v-WINter CORTINA 2019** document on “Similarities & Controversies in Global Guidelines” contains further useful data, available at this website:

<https://pubmed.ncbi.nlm.nih.gov/31495256/>

Both **public** and **healthcare professionals** can report comments and eventual valuable literature in this website:
<https://vwinfoundation.com/fake-news-free-project>



Evidence-based VENOUS-LYMPHATIC information

DOMAIN 1

VALUABLE REFERENCES venous-lymphatic burden

ISSUE 1 (venous-lymphatic disease prevalence)

Rockson SG. Advances in Lymphedema. Circ Res. 2021 Jun 11;128(12):2003-2016.

<https://pubmed.ncbi.nlm.nih.gov/34110905/>

Salim S, Machin M, Patterson BO, Onida S, Davies AH. Global Epidemiology of Chronic Venous Disease: A Systematic Review With Pooled Prevalence Analysis. Ann Surg. 2021 Dec 1;274(6):971-976.

<https://pubmed.ncbi.nlm.nih.gov/33214466/>

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

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Ismail L, Normahani P, Standfield NJ, Jaffer U. A systematic review and meta-analysis of the risk for development of varicose veins in women with a history of pregnancy. J Vasc Surg Venous Lymphat Disord. 2016 Oct;4(4):518-524.e1

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Davies AH. The Seriousness of Chronic Venous Disease: A Review of Real-World Evidence. Adv Ther. 2019 Mar;36(Suppl 1):5-12.
<https://pubmed.ncbi.nlm.nih.gov/30758738/>

ISSUE 2 (DVT risk of death)

Di Minno A, Ambrosino P, Calcaterra I, Di Minno MND. COVID-19 and Venous Thromboembolism: A Meta-analysis of Literature Studies. Semin Thromb Hemost. 2020 Oct;46(7):763-771.
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Monreal M, Agnelli G, Chuang LH, Cohen AT, Gumbs PD, Bauersachs R, Mismetti P, Gitt AK, Kroep S, Willich SN, Van Hout B. Deep Vein Thrombosis in Europe-Health-Related Quality of Life and Mortality. Clin Appl Thromb Hemost. 2019 Jan-Dec;25:1076029619883946.
<https://pubmed.ncbi.nlm.nih.gov/31840534/>

Trends in mortality related to pulmonary embolism in the European Region, 2000-15: analysis of vital registration data from the WHO Mortality Database
The Lancet. Respiratory Medicine
Barco S

<https://www.meta.org/papers/trends-in-mortality-related-to-pulmonary-embolism/31615719>

Beckman MG, Hooper WC, Critchley SE, Ortel TL. Venous thromboembolism: a public health concern. Am J Prev Med. 2010 Apr;38(4 Suppl):S495-501.
<https://pubmed.ncbi.nlm.nih.gov/20331949/>

ISSUE 3 (Venous and Lymphatic impact on swelling)

Raffetto JD, Khalil RA. Mechanisms of Lower Extremity Vein Dysfunction in Chronic Venous Disease and Implications in Management of Varicose Veins. Vessel Plus. 2021;5:36.
<https://pubmed.ncbi.nlm.nih.gov/34250453/>

Ortega M
Understanding Chronic Venous Disease: A Critical Overview of Its Pathophysiology and Medical Management. J Cl Med 2021

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Keast DH, Moffatt C, Janmohammad A. Lymphedema Impact and Prevalence International Study: The Canadian Data. *Lymphat Res Biol.* 2019;17(2):178-186. doi:10.1089/lrb.2019.0014
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6639111/>

ISSUE 4 (Venous & Lymphatic disease coexistence)



Lee BBB. Phlebolymphedema is the ultimate comorbidity/outcome of lymphedema. J Vasc Surg Venous Lymphat Disord. 2019 Sep;7(5):731.
<https://pubmed.ncbi.nlm.nih.gov/31421840/>

Bunke N, Brown K, Bergan J. Phlebolymphedema: usually unrecognized, often poorly treated. Perspect Vasc Surg Endovasc Ther. 2009 Jun;21(2):65-8.
<https://pubmed.ncbi.nlm.nih.gov/19767404/>

ISSUE 5 (C1 prevalence and clinical meaning)

Ruckley CV, Evans CJ, Allan PL, Lee AJ, Fowkes FG. Telangiectasia in the Edinburgh Vein Study: epidemiology and association with trunk varices and symptoms. Eur J Vasc Endovasc Surg. 2008 Dec;36(6):719-24.
<https://pubmed.ncbi.nlm.nih.gov/18848475/>

ISSUE 6 (C6 prevalence and burden)

Nicolaides AN. The Most Severe Stage of Chronic Venous Disease: An Update on the Management of Patients with Venous Leg Ulcers. Adv Ther. 2020 Feb;37(Suppl 1):19-24.
<https://pubmed.ncbi.nlm.nih.gov/31970660/>

ISSUE 7 (Thrombotic risk variation along the different ages)

Montagnana M, Favaloro EJ, Franchini M, Guidi GC, Lippi G. The role of ethnicity, age and gender in venous thromboembolism. J Thromb Thrombolysis. 2010 May;29(4):489-96.
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Eichinger S, Kyrle PA. Sex, age and venous thrombosis-Are men and women indeed from different planets? Eur J Intern Med. 2021 Feb;84:16-17.
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Oliver WM, Mackenzie SA, Lenart L, McCann CJ, Mackenzie SP, Duckworth AD, Clement ND, White TO, Maempel JF. Age, personal and family history are independently associated with venous thromboembolism following acute Achilles tendon rupture. Injury. 2021 Oct 11:S0020-1383(21)00877-9
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ISSUE 8 (Complications rate following deep venous thrombosis)

Tavoly M, Wik HS, Sirnes PA, Jelsness-Jørgensen LP, Ghanima JP, Klok FA, Sandset PM, Ghanima W. The impact of post-pulmonary embolism syndrome and its possible determinants. Thromb Res. 2018 Nov;171:84-91. doi: 10.1016/j.thromres.2018.09.048
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Heit JA, Mohr DN, Silverstein MD, Petterson TM, O'Fallon WM, Melton LJ 3rd. Predictors of recurrence after deep vein thrombosis and pulmonary embolism: a population-based cohort study. Arch Intern Med. 2000 Mar 27;160(6):761-8
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Wu AR, Garry J, Labropoulos N. Incidence of pulmonary embolism in patients with isolated calf deep vein thrombosis. *J Vasc Surg Venous Lymphat Disord*. 2017 Mar;5(2):274-279.

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Vnitr Lek. 2020 Winter;66(8):17-23

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Tritschler T, Kraaijpoel N, Le Gal G, Wells PS. Venous Thromboembolism: Advances in Diagnosis and Treatment. *JAMA*. 2018 Oct 16;320(15):1583-1594

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ISSUE 9 (Recurrence rate following deep venous thrombosis)

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Kemp MT, Obi AT, Henke PK, Wakefield TW. A narrative review on the epidemiology, prevention, and treatment of venous thromboembolic events in the context of chronic venous disease. *J Vasc Surg Venous Lymphat Disord*. 2021 Nov;9(6):1557-1567.

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Stevens H, Peter K, Tran H, McFadyen J. Predicting the Risk of Recurrent Venous Thromboembolism: Current Challenges and Future Opportunities. *J Clin Med*. 2020;9(5):1582. Published 2020 May 22. doi:10.3390/jcm9051582

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Kyrle PA, Minar E, Bialonczyk C, Hirschl M, Weltermann A, Eichinger S. The risk of recurrent venous thromboembolism in men and women. *N Engl J Med.* 2004 Jun 17;350(25):2558-63.
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ISSUE 10 (Prevalence of genetic predisposition to venous thrombosis)

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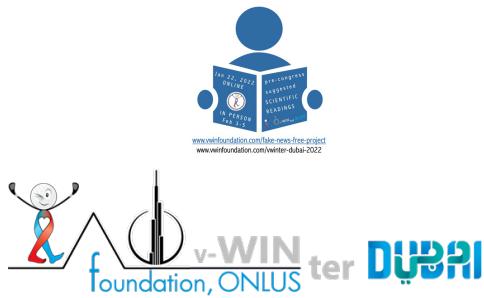
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Crous-Bou M, Harrington LB, Kabrhel C. Environmental and Genetic Risk Factors Associated with Venous Thromboembolism. *Semin Thromb Hemost.* 2016 Nov;42(8):808-820.
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Hotoleanu C. Genetic Risk Factors in Venous Thromboembolism. *Adv Exp Med Biol.* 2017;906:253-272.
<https://pubmed.ncbi.nlm.nih.gov/27638626/>

Karasu A, Engbers MJ, Cushman M, Rosendaal FR, van Hylckama Vlieg A. Genetic risk factors for venous thrombosis in the elderly in a case-control study. *J Thromb Haemost.* 2016 Sep;14(9):1759-64.
<https://pubmed.ncbi.nlm.nih.gov/27377285/>



Evidence-based VENOUS-LYMPHATIC information
DOMAIN 2
VALUABLE REFERENCES



DIAGNOSTICS

ISSUE 1 (Leg & pelvic scanning preparation & position)

Kordowicz A, Ferguson G, Salaman R, Onwudike M. Quality assurance of lower limb venous duplex scans performed by vascular surgeons. Int Angiol. 2015 Feb;34(1):60-6.

<https://pubmed.ncbi.nlm.nih.gov/24658128/>

Stegher S, Occhiuto MT, Mazzaccaro DP, Righini PC, Modafferri A, Malacrida G, Nano G. Appropriateness of Duplex ultrasound assessment on venous system of the legs: a two-month preliminary analysis. Ann Ital Chir. 2017;88:1-6.

<https://pubmed.ncbi.nlm.nih.gov/28447587/>

Meissner MH, Khilnani NM, Labropoulos N, Gasparis AP, Gibson K, Greiner M, Learman LA, Atashroo D, Lurie F, Passman MA, Basile A, Lazarshvili Z, Lohr J, Kim MD, Nicolini PH, Pabon-Ramos WM, Rosenblatt M. The Symptoms-Varices-Pathophysiology classification of pelvic venous disorders: A report of the American Vein & Lymphatic Society International Working Group on Pelvic Venous Disorders. J Vasc Surg Venous Lymphat Disord. 2021 May;9(3):568-584.

<https://pubmed.ncbi.nlm.nih.gov/33529720/>

Garcia R, Labropoulos N. Duplex Ultrasound for the Diagnosis of Acute and Chronic Venous Diseases. Surg Clin North Am. 2018 Apr;98(2):201-218
<https://pubmed.ncbi.nlm.nih.gov/29502767/>

ISSUE 2 (Deep and superficial systems venous segments to be assessed by ultrasound scanning)

Cavezzi A, Labropoulos N, Partsch H, Ricci S, Caggiati A, Myers K, Nicolaides A, Smith PC; UIP. Duplex ultrasound investigation of the veins in chronic venous disease of the lower limbs--UIP consensus document. Part II. Anatomy. Vasa. 2007 Feb;36(1):62-71



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Gillespie D, Glass C. Importance of ultrasound evaluation in the diagnosis of venous insufficiency: guidelines and techniques. *Semin Vasc Surg.* 2010 Jun;23(2):85-9.

<https://pubmed.ncbi.nlm.nih.gov/20685562/>

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Nicolaides, A., H. Clark, N. Labropoulos, G. Geroulakos, M. Lugli and O. Maleti (2014). "Quantitation of reflux and outflow obstruction in patients with CVD and correlation with clinical severity." *Int Angiol* 33(3): 275-281.
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Alhalbouni, S., A. Hingorani, A. Shiferson, K. Gopal, D. Jung, D. Novak, N. Marks and E. Ascher (2012). "Iliac-femoral venous stenting for lower extremity venous stasis symptoms." *Ann Vasc Surg* 26(2): 185-189.
<https://www.ncbi.nlm.nih.gov/pubmed/22018502>

ISSUE 3 (Mandatory ultrasound findings to indicate superficial venous treatment)

Koroglu, M., H. N. Eris, A. R. Aktas, M. Kayan, A. Yesildag, M. Cetin, C. Parlak, C. Gurses and O. Akhan (2011). "Endovenous laser ablation and foam sclerotherapy for varicose veins: does the presence of perforating vein insufficiency affect the treatment outcome?" *Acta Radiol* 52(3): 278-284.
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<https://www.ncbi.nlm.nih.gov/pubmed/24861564>

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<https://www.ncbi.nlm.nih.gov/pubmed/26358310>

Vitale, C., F. D'Abate and A. Froio (2021). "Needs of standardisation in reporting a venous lower limb ultrasound exam for the assessment of varicose veins." *Phlebology* 36(8): 665-667.
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ISSUE 4 (Ultrasound scanning proper report for superficial venous thrombosis detection)



Duffett L, Kearon C, Rodger M, Carrier M. Treatment of Superficial Vein Thrombosis: A Systematic Review and Meta-Analysis. *Thromb Haemost*. 2019 Mar;119(3):479-489.
<https://pubmed.ncbi.nlm.nih.gov/30716777/>

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Decousus, H., L. Bertoletti, P. Frappe, F. Becker, A. E. Jaouhari, P. Mismetti, N. Moulin, E. Presles, I. Quere and A. Leizorovicz (2011). "Recent findings in the epidemiology, diagnosis and treatment of superficial-vein thrombosis." *Thromb Res* 127 Suppl 3: S81-85.

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ISSUE 5 (Ultrasound scanning report for proper deep venous thrombosis screening)

Expert Panel on Interventional Radiology. ACR Appropriateness Criteria® Radiologic Management of Iliofemoral Venous Thrombosis. *J Am Coll Radiol*. 2020 May;17(5S):S255-S264.

<https://pubmed.ncbi.nlm.nih.gov/32370969/>

Needleman L, Cronan JJ, Lilly MP, Merli GJ, Adhikari S, Hertzberg BS, DeJong MR, Streiff MB, Meissner MH. Ultrasound for Lower Extremity Deep Venous Thrombosis: Multidisciplinary Recommendations From the Society of Radiologists in Ultrasound Consensus Conference. *Circulation*. 2018 Apr 3;137(14):1505-1515.

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Heller, T., M. Becher, J.-C. Kröger, E. Beller, S. Heller, R. Höft, M.-A. Weber and F. G. Meinel (2021). "Isolated calf deep venous thrombosis: frequency on venous ultrasound and clinical characteristics." *BMC Emergency Medicine* 21(1).

<https://dx.doi.org/10.1186/s12873-021-00516-1>

ISSUE 6 (Meaning of venous flow phasicity in ultrasound thrombosis detection)

Cozcolluela MR, Sarría L, Sanz L, Martínez-Berganza MT, de Vera JM, Bernal A, García S. Correlation of central venous pressure with Doppler waveform of the common femoral veins. *J Ultrasound Med*. 2000 Aug;19(8):587-92.

<https://pubmed.ncbi.nlm.nih.gov/10944046/>

Selis JE, Kadakia S. Venous Doppler sonography of the extremities: a window to pathology of the thorax, abdomen, and pelvis. *AJR Am J Roentgenol*. 2009 Nov;193(5):1446-51.
<https://pubmed.ncbi.nlm.nih.gov/19843766/>

ISSUE 7 (Meaning of venous cyclic flow detection in cardio-vascular disease management)

Kayilioğlu S. Diagnostic value of the femoral vein flow pattern for the detection of an ilio caval venous obstruction. *J Vasc Surg Venous Lymphat Disord*. 2016 Jan;4(1):2-8.
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ISSUE 8 (Ultrasound follow up protocol after a first DVT episode)

Meissner MH. Duplex follow-up of patients with DVT: does it have clinical significance?

Semin Vasc Surg. 2001 Sep;14(3):215-21.

<https://pubmed.ncbi.nlm.nih.gov/11561283/>

Nguyen KP. Prospective study comparing the rate of deep venous thrombosis of complete and incomplete lower extremity venous duplex ultrasound examinations. J Vasc Surg Venous Lymphat Disord. 2019 Nov;7(6):882-888.

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Ultrasound for Lower Extremity Deep Venous Thrombosis

Multidisciplinary Recommendations From the Society of Radiologists in Ultrasound Consensus Conference

<https://www.ahajournals.org/doi/10.1161/CIRCULATIONAHA.117.030687>

ISSUE 9 (Intravenous ultrasound (IVUS) role in ilio-femoral venous stenting)

Wang X, Yu C, Chen G, Hong Y, Zhou B, Ge J, Liu T. Iliac vein stenting guided by intravascular ultrasound without iodinated contrast medium. Vasa. 2021 Jan;50(1):68-73.

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Gagne, P. J., R. W. Tahara, C. P. Fastabend, L. Dzieciuchowicz, W. Marston, S. Vedantham, W. Ting and M. D. Iafrati (2017). "Venography versus intravascular ultrasound for diagnosing and treating iliofemoral vein obstruction." *J Vasc Surg Venous Lymphat Disord* 5(5): 678-687.

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Seager MJ, A Systematic Review of Endovenous Stenting in Chronic Venous Disease Secondary to Iliac Vein Obstruction. Eur J Vasc Endovasc Surg. 2016 Jan;51(1):100-20.

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ISSUE 10 (Ultrasound scanning protocol for lower limb lymphedema)

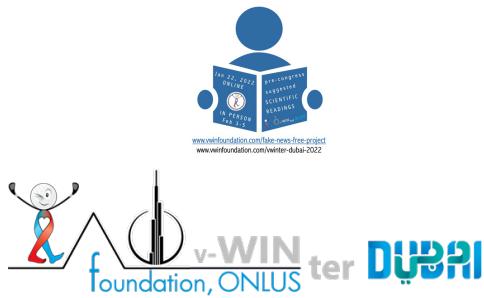
Johnson KC. Ultrasound and Clinical Measures for Lymphedema. Lymphat Res Biol. 2016 Mar;14(1):8-17.

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Todd, M., J. "Survey of Doppler use in lymphoedema practitioners in the UK." *Br J Community*
<https://www.ncbi.nlm.nih.gov/pubmed/18595307>



Evidence-based VENOUS-LYMPHATIC information

DOMAIN 3

VALUABLE REFERENCES superficial venous procedures



ISSUE 1 (Clinical and instrumental indications to superficial venous treatment)

Masuda E. The 2020 appropriate use criteria for chronic lower extremity venous disease of the American Venous Forum, the Society for Vascular Surgery, the American Vein and Lymphatic Society, and the Society of Interventional Radiology. *J Vasc Surg Venous Lymphat Disord.* 2020 Jul;8(4):505-525.e4.
<https://pubmed.ncbi.nlm.nih.gov/32139328/>

ISSUE 2 (GSV Anatomical recurrence comparison between surgical & thermal tumescent techniques)

Bush RG, Bush P, Flanagan J, Fritz R, Gueldner T, Koziarski J, McMullen K, Zumbro G. Factors associated with recurrence of varicose veins after thermal ablation: results of the recurrent veins after thermal ablation study. *ScientificWorldJournal.* 2014 Jan 27;2014:505843.

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<https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD005624.pub4/full>

Farah MH, Nayfeh T, Urtecho M, Hasan B, Amin M, Sen I, Wang Z, Prokop LJ, Lawrence PF, Gloviczki P, Murad MH. A systematic review supporting the Society for Vascular Surgery, the American Venous Forum, and the American Vein and Lymphatic Society guidelines on the management of varicose veins. *J Vasc Surg Venous Lymphat Disord.* 2021 Aug 24:S2213-333X(21)00421-2



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ISSUE 3 (SSV Anatomical recurrence comparison between surgical & endovenous)

Boersma D, Kornmann VN, van Eekeren RR, Tromp E, Ünlü Ç, Reijnen MM, de Vries JP. Treatment Modalities for Small Saphenous Vein Insufficiency: Systematic Review and Meta-analysis. *J Endovasc Ther.* 2016 Feb;23(1):199-211
<https://pubmed.ncbi.nlm.nih.gov/26564912/>

ISSUE 4 (Catheters injecting sclerotherapy anatomical and clinical performance)

Mohamed AH, Leung C, Wallace T, Smith G, Carradice D, Chetter I. A Randomized Controlled Trial of Endovenous Laser Ablation Versus Mechanochemical Ablation With ClariVein in the Management of Superficial Venous Incompetence (LAMA Trial). *Ann Surg.* 2021 Jun 1;273(6):e188-e195.

<https://pubmed.ncbi.nlm.nih.gov/31977509/>

Alozai T, Huizing E, Schreve M, Mooij MC, van Vlijmen CJ, Wisselink W, Ünlü Ç. A systematic review and meta-analysis of mechanochemical endovenous ablation using Flebogrif for varicose veins. *J Vasc Surg Venous Lymphat Disord.* 2022 Jan;10(1):248-257.e2.

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ISSUE 5 (Steam ablation clinical and anatomical performance)

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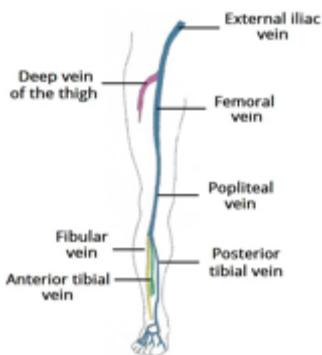
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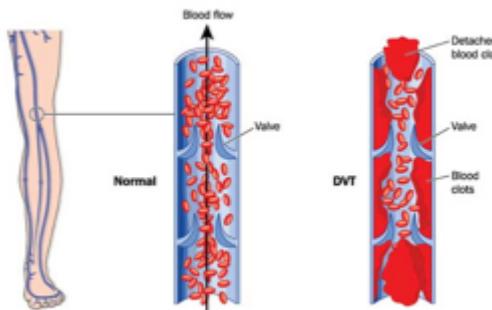
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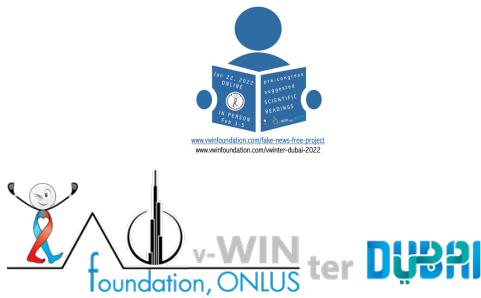
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DOMAIN 9

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DOMAIN 10

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(NO SOLID DATA ON ozonotherapy)

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(NO SOLID DATA ON ozonotherapy)

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Evidence-based VENOUS-LYMPHATIC information

DOMAIN 12

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