

CONSENSUS ROOM hot topics for discussion



20 international CME credits

The meeting has been accredited by the European Accreditation Council for Continuing Medical Education (EACCME®) with 20 European CME credits (ECMEC®s).
Each medical specialist should claim only those hours of credit that he/she actually spent in the educational activity



CONSENSUS ROOM hot topics for discussion in person Feb 3-5 DUBAI meeting INSTRUCTIONS

1.

One of the 3 meeting rooms of v-WINter DUBAI, the «**CONSENSUS ROOM**», will host **12 sessions** on **12 Vein-Lymphatic domains**.

Epidemiology	Venous Diagnostics	Venous Procedures	Deep Venous	Pelvic Venous	Venous Thrombosis
Venous Ulcer	Venous Drugs	Compression	Lymphedema/ Lipedema	Sclerotherapy / Aesthetics	Sport/ Lifestyle / Nutrition

2.

In each session, a New Generation representative, together with Key Opinion Leaders, will trigger the discussion on **10 hot topics** related to the specific domain, by means of a **10 minutes presentation**,

3.

An **OPEN DISCUSSION** among global experts from all continents will focus on the hottest topics. A list of useful references has been uploaded in the meeting webpage to warm up the discussion.



CONSENSUS ROOM
hot topics for discussion

Jan 22 pre-congress webinar INSTRUCTIONS

4.

Before the meeting, 3 webinars from 3 different continental areas, in 3 different moments of the day, will be hosted on Jan 22, 2022, in the v-CONNECT digital platform (<https://vconnect.vwinfoundation.com/>)

5.

from Jan 15, in the v-WINter DUBAI meeting website, a sum up of met and unmet needs in vein-lymphatic management will be available for consultation, with the aim of triggering discussion.

6.

everybody can report eventual hot topics to be discussed and/or encountered vein-lymphatic misinformation/fake news in the dedicated website www.vwinfoundation.com/fake-news-free-project/

Sim translation



v-CONNECT

www.vwinfoundation.com/vwinter-dubai-2022/



pre v-WINter DUBAI scientific warm up
January 22nd

v-CONNECT in ONE click



FREE registration

v-CONNECT



ASIA
Session

6-7.30
GMT



EUR-AFRICA
Session

14-15.30
GMT



AMERICA
Session

17-18.30
GMT



Consensus Document
to be published on
**INTERNATIONAL
ANGIOLOGY**

1 . JOURNAL (IF 2,789)

Open access
WEBSITE
including
evidence based
3 . information

Multi-lingual
BOOKLET
for the
2 . PUBLIC



**v-WINter DUBAI document project will be presented at the
Universal Expo (World Fair) in DUBAI, on Feb 5**



Experts Consensus
document



Multi-lingual
awareness booklet



Interactive Educational
website

CONSENSUS ROOM
hot topics for discussion

The following slides include:

- a) (in BLUE) **the topic of the issue** and the **tentative statement in layman's terms** for the public (to be fixed after the ongoing literature search and related debate)
- b) (in RED) a slide dedicated to a potential "**unmet need**" related to the same topic, potentially triggering the discussion with the audience.
- c) In case the reader like, before Jan 20, she/he can submit a 2 min video comment to info@vwinfoundation.com or fill in the dedicated form <https://vwinfoundation.com/fake-news-free-project/>

The **received comments** will be invited **live** during the **Jan 22 webinar** and the **Feb 3-5 hybrid DUBAI meeting** or made visible in the dedicated **platform**.



HOT TOPIC

Domain 1

VEIN-LYMPHATIC DISEASE BURDEN

Discussion Trigger
M. CHAMO
GUATEMALA

Involved experts:

Aguero C (LATAM), De Maessner M (EUR), Giancesini S (EUR),
Taha W (AFRICA), Vuylsteke M (EUR), Wang J (ASIA)

COI

NONE

Issue 1

Lower limb vein & lymphatic disease prevalence

Layman's terms

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

Salim S. Global Epidemiology of Chronic Venous Disease: A Systematic Review With Pooled Prevalence Analysis. Ann Surg. 2021 Dec 1;274(6):971-976.

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

Issue 1

- ✓ all races spectrum
- ✓ lymphedema underdiagnosis

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

Dean LT, Kumar A, Kim T, et al. Race or Resource? BMI, Race, and Other Social Factors as Risk Factors for Interlimb Differences among Overweight Breast Cancer Survivors with Lymphedema. J Obes. 2016;2016:8241710. doi:10.1155/2016/8241710



HOT TOPIC

Issue 2

DVT as leading cause of preventable death

Layman's terms

A clot in a leg vein (*thrombosis*) represents a **leading cause of preventable death**.

The Lancet Haematology. Thromboembolism: an under appreciated cause of death. Lancet Haematol. 2015 Oct;2(10):e393.

Issue 2

is it still a leading cause ?



HOT TOPIC

Schulman S. Is venous thromboembolism a preventable cause of death?
Lancet Haematol. 2020 Aug;7(8):e555-e556.

Issue 3

Venous and Lymphatic impact on swelling

Layman's terms

In swollen legs lymphatic drainage alteration (*lymphedema*) must be excluded.

Rasmussen JC, Zhu B, Morrow JR, Aldrich MB, Sahihi A, Harlin SA, Fife CE, O'Donnell TF Jr, Sevick-Muraca EM. Degradation of lymphatic anatomy and function in early venous insufficiency. J Vasc Surg Venous Lymphat Disord. 2021 May;9(3):720-730.e2.

Issue 3

lymphatic component quantification in venous disease



HOT TOPIC

Mortimer PS. Implications of the lymphatic system in CVI-associated edema.
Angiology. 2000 Jan;51(1):3-7.

Issue 4

Venous & Lymphatic disease coexistence prevalence

Layman's terms

Consultations for venous disease should report **also about the lymphatic** status, and **vice-versa**.

Suzuki M, Unno N, Yamamoto N, Nishiyama M, Sagara D, Tanaka H, Mano Y, Konno H. Impaired lymphatic function recovered after great saphenous vein stripping in patients with varicose vein: venodynamic and lymphodynamic results. J Vasc Surg. 2009 Nov;50(5):1085-91

Issue 4

lymphatic assessment in phlebology office & viceversa

Galeandro AI, Quistelli G, Scicchitano P, Gesualdo M, Zito A, Caputo P, Carbonara R, Galgano G, Ciciarello F, Mandolesi S, Franceschi C, Ciccone MM. Doppler ultrasound venous mapping of the lower limbs. Vasc Health Risk Manag. 2012;8:59-64.

Mander A, Venosi S, Menegatti E, Byung-Boong L, Neuhardt D, Maietti E, Giancesini S. Upper limb secondary lymphedema ultrasound mapping and characterization. Int Angiol. 2019 Aug;38(4):334-342.



Issue 5

C1 prevalence and clinical meaning

Layman's terms

Up to 80% of the adult population can present leg veins aesthetic issues.

Ruckley CV, Evans CJ, Allan PL et al. **Telangiectasia in the Edinburgh Vein Study: epidemiology and association with trunk varices and symptoms.** Eur J Vasc Endovasc Surg 2008;36:719–724.

Issue **5**

C1 & venous reflux



HOT TOPIC

Ruckley CV, Allan PL, Evans CJ, Lee AJ, Fowkes FG. Telangiectasia and venous reflux in the Edinburgh Vein Study. *Phlebology*. 2012 Sep;27(6):297-302.

Issue 6

C6 prevalence and burden

Layman's terms

Up to 2% of the population can present skin lesions (*ulcer*) from venous disease

Berenguer Pérez M, López-Casanova P, Sarabia Lavín R, González de la Torre H, Verdú-Soriano J. Epidemiology of venous leg ulcers in primary health care: Incidence and prevalence in a health centre-A time series study (2010-2014). Int Wound J. 2019 Feb;16(1):256-265.

Issue **6**

all races spectrum



HOT TOPIC

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

Issue 7

Thrombotic risk variation along the different ages

Layman's terms

The risk of having a deep venous clot raises rapidly after age 45 years

Issue 7

Age related thrombotic risk in different clinical contexts



HOT TOPIC

White RH, Zhou H, Gage BF. Effect of age on the incidence of venous thromboembolism after major surgery. J Thromb Haemost. 2004 Aug;2(8):1327-33.

Issue 8

Complications rate following deep venous thrombosis

Layman's terms

Up to 50% of those who had a leg deep vein thrombosis develops complications.

Winter MP, Schernthaner GH, Lang IM. Chronic complications of venous thromboembolism. J Thromb Haemost. 2017 Aug;15(8):1531-1540..

Issue 8

Post-thrombotic syndrome definition



HOT TOPIC

Kahn SR. Measurement properties of the Villalta scale to define and classify the severity of the post-thrombotic syndrome. J Thromb Haemost. 2009 May;7(5):884-8.

Issue 9

Recurrence rate following deep venous thrombosis.

Layman's terms

About 1/4 of those who had a leg deep vein thrombosis develops recurrence

Labropoulos N, Jen J, Jen H, Gasparis AP, Tassiopoulos AK. Recurrent deep vein thrombosis: long-term incidence and natural history. Ann Surg. 2010 Apr;251(4):749-53. .

Issue 9

DVT recurrence prevention



HOT TOPIC

Michiels JJ, Michiels JM, Moosdorff W, Lao M, Maasland H, Palareti G.
Diagnosis of deep vein thrombosis, and prevention of deep vein thrombosis
recurrence and the post-thrombotic syndrome in the primary care medicine
setting anno 2014. World J Crit Care Med. 2015 Feb 4;4(1):29-39

Issue 10

venous thrombosis genetic predisposition prevalence

Layman's terms

Up to 8% of the population presents genetic predisposition to thrombosis.

Baylis RA, Smith NL, Klarin D, Fukaya E. Epidemiology and Genetics of Venous Thromboembolism and Chronic Venous Disease. Circ Res. 2021 Jun 11;128(12):1988-2002

Issue 10

all races spectrum



HOT TOPIC

Zakai NA, McClure LA. Racial differences in venous thromboembolism.
J Thromb Haemost. 2011 Oct;9(10):1877-82.

OPEN CONTRIBUTIONS & DISCUSSION

from the v-WINter DUBAI meeting floor (in person)

from the world online on v-CONNECT



v-CONNECT



Domain 2

VENOUS DIAGNOSTICS

Discussion Trigger
NG Yeejia
SINGAPORE

Involved experts:

Gianesini S (EUR), Hirsch T (EUR), Labropoulos N (N AM), Narayanan S (ASIA),
Kim DI (ASIA), Neuhardt D (N AM), Prego A (LATAM)

COI

NONE

Leg & pelvic scanning preparation & position

Layman's terms

Ultrasound scanning for **leg** venous reflux must be performed in a **standing position**

Abdominal veins are better assessed after overnight fasting
in **supine position** with 30° head elevation

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

Labropoulos N, Jasinski PT, Adrahtas D, Gasparis AP, Meissner MH. A standardized ultrasound approach to pelvic congestion syndrome. Phlebology. 2017 Oct;32(9):608-619.

Issue 1

✓ Leg and Pelvic report standardization



HOT TOPIC

Vitale C, D'Abate F, Froio A. Needs of standardisation in reporting a venous lower limb ultrasound exam for the assessment of varicose veins. Phlebology. 2021 Sep;36(8):665-667.

Deep and superficial systems venous segments to be assessed by ultrasound scanning.

Layman's terms

A complete venous reflux ultrasound report must include the following segments:

- DEEP (common-internal-external femoral, popliteal, anterior-posterior tibial, tibio-peroneal trunk)
- SUPERFICIAL (great, small, anterior accessory saphenous vein and related tributaries)
- Eventually incompetent PERFORATING VEINS
- Refluxes from the pelvis should always be excluded.

Zollmann P, Determining the origin of superficial venous reflux in the groin with duplex ultrasound and implications for varicose vein surgery. J Vasc Surg Venous Lymphat Disord. 2017 Jan;5(1):82-86.

Cavezzi A. 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

Issue **2**

Perforating veins Outward Diastolic vs Net flow



HOT TOPIC

Gianesini S. Comparison Between Duplex Ultrasound and Multigate Quality Doppler Profile Software in the Assessment of Lower Limb Perforating Vein Direction. Eur J Vasc Endovasc Surg. 2018 May;55(5):688-693.

Issue 3

Mandatory ultrasound findings to indicate superficial venous treatment

Layman's terms

An ultrasound scanning is **mandatory** to indicate a varicose veins treatment.

Khilnani NM. Duplex ultrasound evaluation of patients with chronic venous disease of the lower extremities. AJR Am J Roentgenol. 2014 Mar;202(3):633-42

Issue 3

treatment indication in countries with limited resources



Shah S, Bellows BA, Adedipe AA, Totten JE, Backlund BH, Sajed D. Perceived barriers in the use of ultrasound in developing countries. *Crit Ultrasound J.* 2015;7(1):28. doi:10.1186/s13089-015-0028-2

Issue 4

Ultrasound scanning proper report for superficial venous thrombosis detection

Layman's terms

Ultrasound scanning for superficial venous thrombosis must always report all the saphenous axis and detectable saphenous tributaries.

Quéré I, Leizorovicz A, Galanaud JP, Presles E, Barrellier MT, Becker F, Desprairies G, Guenneguez H, Mismetti P, Décousus H; Prospective Observational Superficial Thrombophlebitis (POST) Study Investigators. Superficial venous thrombosis and compression ultrasound imaging. J Vasc Surg. 2012 Oct;56(4):1032-8.e1.

Issue **4**

US surveillance timing in SVT



HOT TOPIC

Tung-Chen Y, Pizarro I, Rivera-Núñez MA, Martínez-Virto AM, Lorenzo-Hernández A, Sancho-Bueso T, Salgueiro G, Fernández-Capitán C. Sonographic evolution of the superficial vein thrombosis of the lower extremity. J Ultrasound. 2021 Sep;24(3):253-259.

Issue 5

US report for proper deep venous thrombosis scanning

Layman's terms

Ultrasound report for deep venous thrombosis screening must include **pre-test risk assessment** and the following segments, **every 2 cm**: common-internal-external femoral, popliteal, anterior-posterior tibial, tibio-peroneal trunk.
Abdominal veins thrombosis should always be excluded.

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.

Issue 5

single limited
vs
serial limited
vs
whole-leg CUS

...& surveillance timeline



HOT TOPIC

Kraaijpoel N, Carrier M, Le Gal G, McInnes MDF, Salameh JP, McGrath TA, van Es N, Moher D, Büller HR, Bossuyt PM, Leeflang MMG. Diagnostic accuracy of three ultrasonography strategies for deep vein thrombosis of the lower extremity: A systematic review and meta-analysis. PLoS One. 2020 Feb 11;15(2):e0228788

Issue 6

Meaning of venous flow phasicity in ultrasound thrombosis detection.

Layman's terms

At the ultrasound, venous flow phasicity presence **can not exclude** thrombosis

Issue 6

Aged thrombus detection & description



HOT TOPIC

Lanza GM, Cui G, Schmieder AH, et al. An unmet clinical need: The history of thrombus imaging. *J Nucl Cardiol*. 2019;26(3):986-997. doi:10.1007/s12350-017-0942-8

Issue 7

Meaning of venous cyclic flow detection in cardio-vascular disease management.

Layman's terms

At the ultrasound, venous cyclic flow is **not always a sign of cardiac disease**, but proper clinical evaluation of the single case is mandatory.

Issue 7

Waveforms indicating cardiology consult



HOT TOPIC

Cozcolluela MR, Sarría L, Sanz L, Martinez-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.

Issue 8

Ultrasound follow up protocol after a first DVT episode.

Layman's terms

After a first episode of leg deep venous thrombosis resolution, detailed **thrombotic risk** must be assessed and an ultrasound scanning F-up must be performed not later than **12 months**.

Michiels JJ, Michiels JM, Moosdorff W, Lao M, Maasland H, Palareti G. Diagnosis of deep vein thrombosis, and prevention of deep vein thrombosis recurrence and the post-thrombotic syndrome in the primary care medicine setting anno 2014. World J Crit Care Med. 2015 Feb 4;4(1):29-39.

Issue 8

F-up US timing after proximal vs distal thrombosis resolution



HOT TOPIC

Needleman L,. 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

Issue 9

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

Layman's terms

Intravenous ultrasound (**IVUS**) should be performed to guide ilio-femoral venous stenting.

Gagne PJ. Analysis of threshold stenosis by multiplanar venogram and intravascular ultrasound examination for predicting clinical improvement after iliofemoral vein stenting in the VIDIO trial. J Vasc Surg Venous Lymphat Disord. 2018 Jan;6(1):48-56.e1.

Issue 9

IVUS cost-effectiveness in venous ilio-femoral management

Cardiovasc J. 2001 Mar;35(2):Gaster AL, Slothuus U, Larsen J, Thayssen P, Haghfelt T. Cost-effectiveness analysis of intravascular ultrasound guided percutaneous coronary intervention versus conventional percutaneous coronary intervention. Scand 80-5.

Loffroy R, Falvo N, Galland C, et al. Intravascular Ultrasound in the Endovascular Treatment of Patients With Peripheral Arterial Disease: Current Role and Future Perspectives. *Front Cardiovasc Med*. 2020;7:551861. Published 2020 Dec 2. doi:10.3389/fcvm.2020.551861



HOT TOPIC

Issue 10

Ultrasound scanning protocol for lower limb lymphedema.

Layman's terms

A **venous ultrasound** must be performed in presence of leg lymphatic impairment to exclude a venous component, and **viceversa**.

Farrow Wade. Phlebolympheidema—A Common Underdiagnosed and Undertreated Problem in the Wound Care Clinic. J Am Col Certif Wound Spec. 2010; 2(1): 14–23.

Issue 10

US lymphedema characterization



HOT TOPIC

Mander A, Venosi S, Menegatti E, Byung-Boong L, Neuhardt D, Maietti E, Giancesini S. Upper limb secondary lymphedema ultrasound mapping and characterization. *Int Angiol.* 2019 Aug;38(4):334-342.

OPEN CONTRIBUTIONS & DISCUSSION

from the v-WINter DUBAI meeting floor (in person)

from the world online on v-CONNECT



v-CONNECT



Domain 3

SUPERFICIAL VENOUS PROCEDURES

Discussion Trigger
J. Sousa
PORTUGAL

Involved experts:

Gianesini S (EUR), Jindal R (ASIA), Marston W (USA), Redman L (AFRICA), Shaydakov E (EUR), Simkin C (LATAM)

COI

NONE

Issue 1

Clinical & instrumental indications to superficial venous treatment

Layman's terms

Documented vein **signs**, **symptoms** & **reflux** must be present
to indicate a superficial venous procedure

Masuda E, Ozsvath K, Vossler J, Woo K, Kistner R, Lurie F, Monahan D, Brown W, Labropoulos N, Dalsing M, Khilnani N, Wakefield T, Gloviczki P. 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.

Issue 1

✓ Reflux without signs & symptoms
indication to treatment

✓ Treatment method



HOT TOPIC

van der Velden SK, van den Bos RR, Pichot O, Nijsten T, De Maeseneer M.
Towards an individualized management strategy for patients with chronic
venous disease: Results of a Delphi consensus. *Phlebology*. 2018;33(7):492-
499. doi:10.1177/0268355517719357

Issue 2

GSV anatomical recurrence comparison between surgical & thermal tumescent techniques.

Layman's terms

No significant difference in reflux reappearance risk is reported following surgical rather than endovenous thermal ablation of the great saphenous vein.

Issue 2

Hemodynamic homogeneity in the assessed study populations



HOT TOPIC

Gianesini S. Femoral vein valve incompetence as a risk factor for junctional recurrence. *Phlebology*. 2018 Apr;33(3):206-212.

Issue 3

SSV Anatomical recurrence comparison between surgical & endovenous

Layman's terms

Preliminary data suggest that endovenous thermal ablation of the small saphenous vein leads to a smaller percentage of reflux reappearance compared to surgical ablation.

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.

Issue 3

long f-up data for SSV treatment



Paravastu SC, Horne M, Dodd PD. Endovenous ablation therapy (laser or radiofrequency) or foam sclerotherapy versus conventional surgical repair for short saphenous varicose veins. Cochrane Database Syst Rev. 2016 Nov 29;11(11):CD010878.

Issue 4

Catheters injecting sclerotherapy anatomical and clinical performance

Layman's terms

Catheters injecting sclerotherapy while incising the saphenous vein demonstrated to be **safe** (Clarivein®, Flebogrif®) and **not inferior to thermal ablation** in clinical outcome (Clarivein®).

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

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.

Issue 4

✓ longer > 1 F.up (Flebogrif)

✓ RCT (Flebogrif)

✓ MOCA™ (Clarivein)

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.

Thierens N, Holewijn S, Vissers WH, Werson DA, de Vries JPP, Reijnen MM.
Five-year outcomes of mechano-chemical ablation of primary great saphenous
vein incompetence. Phlebology. 2020 May;35(4):255-261.



HOT TOPIC

Issue 5

Steam ablation clinical and anatomical performance.

Layman's terms

Ablation of the great saphenous vein by steam is **safe** and **effective**.

Milleret R, Huot L, Nicolini P, Creton D, Roux AS, Decullier E, Chapuis FR, Camelot G. Great saphenous vein ablation with steam injection: results of a multicentre study. Eur J Vasc Endovasc Surg. 2013 Apr;45(4):391-6.

Issue 5

Steam RCT



HOT TOPIC

Whing J, Nandhra S, Nesbitt C, Stansby G. Interventions for great saphenous vein incompetence. Cochrane Database of Systematic Reviews 2021

Glue ablation clinical and anatomical performance.

Layman's terms

Ablation of the great saphenous vein by **glue** has a clinical result **not inferior to** radiofrequency (Venaseal®) at 5 years and not inferior to Laser at 2 years (Venablock®). The patient must be informed the glue will remain as foreign body.

Morrison N. **Five-year extension study of patients from a randomized clinical trial (VeClose) comparing cyanoacrylate closure versus radiofrequency ablation for the treatment of incompetent great saphenous veins.** J Vasc Surg Venous Lymphat Disord. 2020 Nov;8(6):978-989.

Wilczko J, Szary C, Plucinska D, Grzela T. Two-Year Follow-Up after Endovenous Closure with Short-Chain Cyanoacrylate versus Laser Ablation in Venous Insufficiency. J Clin Med. 2021

Issue **6**

EGIT management



HOT TOPIC

Cho S, Gibson K, Lee SH, Kim SY, Joh JH. Incidence, classification, and risk factors of endovenous glue-induced thrombosis after cyanoacrylate closure of the incompetent saphenous vein. J Vasc Surg Venous Lymphat Disord. 2020 Nov;8(6):991-998.

Issue 7

Saphenous sparing

Layman's terms

In expert hands, saphenous-sparing procedures can reduce the risk of reflux reappearance.

ilone M, Salvatore G, Maietta P, Sosa Fernandez LM, Milone F. Recurrent varicose veins of the lower limbs after surgery. Role of surgical technique (stripping vs. CHIVA) and surgeon's experience. G Chir. 2011 Nov-Dec;32(11-12):460-3

Guo L, Huang R, Zhao D, Xu G, Liu H, Yang J, Guo T. Long-term efficacy of different procedures for treatment of varicose veins: A network meta-analysis. Medicine (Baltimore). 2019 Feb;98(7):e14495.

Issue 7

Homogenous data collection in saphenous sparing



Bellmunt-Montoya S, Escribano JM, Pantoja Bustillos PE, Tello-Díaz C, Martinez-Zapata MJ. CHIVA method for the treatment of chronic venous insufficiency. Cochrane Database of Systematic Reviews 2021

Issue 8

Superficial venous disease periprocedural thrombotic risk management

Layman's terms

All venous procedures bring a **small** but **possible** thrombo-embolic risk:
individual risk assessment & management must be performed by an expert physician

Barker T, Evison F, Benson R, Tiwari A. Risk of venous thromboembolism following surgical treatment of superficial venous incompetence. Vasa. 2017 Oct;46(6):484-489.

Chang SL, Huang YL, Lee MC, Hu S, Hsiao YC, Chang SW, Chang CJ, Chen PC. Association of Varicose Veins With Incident Venous Thromboembolism and Peripheral Artery Disease. JAMA. 2018 Feb 27;319(8):807-817

Issue 8

Thromboprophylaxis protocols in periprocedural CVD



HOT TOPIC

Boyle E, Reid J, O'Donnell M, Harkin D, Badger S. Thromboprophylaxis for varicose vein procedures - A national survey. *Phlebology*. 2019 Oct;34(9):598-603.17

Issue 9

Superficial venous disease periprocedural graduated compression indication.

Layman's terms

Right after a venous procedure, certified graduated compression stockings are **recommended** for one week to reduce pain and edema. The prescribing doctors can vary the indication based on the single case specificity.

Kürşat Bozkurt A, Lawaetz M, Danielsson G, Lazaris AM, Pavlovic M, Olariu S, Rasmussen L. European College of Phlebology guideline for truncal ablation. Phlebology. 2020 Mar;35(2):73-83.

Issue 9

Post procedural compression Timing & Dosing



HOT TOPIC

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.

Issue 10

Superficial venous disease procedures complications incidence & management.

Layman's terms

Venous procedures are **safe**, but complications can happen: it's fundamental to rely always on expert physicians even for the less invasive procedures.

de Mik SM, Stubenrouch FE, Legemate DA, Balm R, Ubbink DT. Treatment of varicose veins, international consensus on which major complications to discuss with the patient: A Delphi study. *Phlebology*. 2019 Apr;34(3):201-207.

Issue 10

thrombo-prohylaxis in periprocedural covid time (suspected positive asymptomatic)



https://covid-19.sciensano.be/sites/default/files/Covid19/COVID-19_Anticoagulation_Management_1.pdf

OPEN CONTRIBUTIONS & DISCUSSION

from the v-WINter DUBAI meeting floor (in person)

from the world online on v-CONNECT



v-CONNECT



Domain 4

DEEP VENOUS & MALFORMATIONS

Discussion Trigger
M Barbati
GERMANY

Involved experts:

Black S (EUR), Garcia M (N AM), Giancesini S (EUR), Gibson K (N AM), Hussein E (AFRICA), Jalaie H (EUR-M EAST)

COI

NONE

Deep venous pathophysiology.

Layman's terms

Deep veins of the leg can present a reflux because of spontaneous or post-thrombotic or post-trauma valve damage and/or vein obstruction.

Santler B, Goerge T. Chronic venous insufficiency - a review of pathophysiology, diagnosis, and treatment. J Dtsch Dermatol Ges. 2017 May;15(5):538-556

Issue 1

✓ Obesity induced deep venous hypertension management



HOT TOPIC

Davies HO, Popplewell M, Singhal R, Smith N, Bradbury AW. Obesity and lower limb venous disease - The epidemic of phlebesity. Phlebology. 2017 May;32(4):227-233.

Superficial venous insufficiency role in deep venous disease.

Layman's terms

Patients with **superficial** venous insufficiency have a **higher risk** of having also **deep** venous insufficiency.

Labropoulos N, Tassiopoulos AK, Kang SS, Mansour MA, Littooy FN, Baker WH. Prevalence of deep venous reflux in patients with primary superficial vein incompetence. J Vasc Surg. 2000 Oct;32(4):663-8.

Issue 2

deep venous treatment timing after superficial venous reflux suppression



HOT TOPIC

Lawrence PF, Hager ES, Harlander-Locke MP, Pace N, Jayaraj A, Yohann A, Kalbaugh C, Marston W, Kabnick L, Saqib N, Pouliot S, Piccolo C, Kiguchi M, Peralta S, Motaganahalli R. Treatment of superficial and perforator reflux and deep venous stenosis improves healing of chronic venous leg ulcers. J Vasc Surg Venous Lymphat Disord. 2020 Jul;8(4):601-609

Issue 3

Iliac vein stenosis indication to treatment

Layman's terms

A narrowing of the iliac vein is present in **up to 50%** of the population, with **3-5%** being symptomatic and eventually requiring treatment: a caliber reduction alone is **not** an indication to treatment per se.

McArdle M, Hernandez-Vila EA. Management of Chronic Venous Disease. *Tex Heart Inst J*. 2017;44(5):347-349. Published 2017 Oct 1. doi:10.14503/THIJ-17-6357

Issue 3

iliac vein stenosis stenting indication in obese patients before severe BMI reduction attempt



HOT TOPIC

Jayaraj A, Powell T, Raju S. Effect of body mass index on initial presentation and outcomes after stenting for quality of life-impairing chronic iliofemoral venous obstruction. J Vasc Surg Venous Lymphat Disord. 2021 Aug 4:S2213-333X(21)00397-8.

Issue 4

Ilio-femoral venous stenting indications

Layman's terms

Venous ilio-femoral stenting for obstruction must be performed after specialist careful evaluation and only in **highly symptomatic** patients.

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.

Issue 4

iliac vein stenosis stenting indication with/without/with only IVUS



HOT TOPIC

Montminy ML, Thomasson JD, Tanaka GJ, Lamanilao LM, Crim W, Raju S. A comparison between intravascular ultrasound and venography in identifying key parameters essential for iliac vein stenting. J Vasc Surg Venous Lymphat Disord. 2019 Nov;7(6):801-807.397-8.

Issue 5

Deep venous reflux management

Layman's terms

Deep venous reflux can be managed by **proper elastic compression** and, eventually , by **superficial reflux** treatment.

Deep venous reflux surgical treatment is to be performed only in **highly specialized** centers and it's **still in need** of strong scientific validation.

Issue 5

optimal medical therapy after deep venous procedures



HOT TOPIC

Khaja MS, Obi AT, Sharma AM, et al. **Optimal Medical Therapy Following Deep Venous Interventions: Proceedings from the Society of Interventional Radiology Foundation Research Consensus Panel.** J Vasc Interv Radiol. 2021 Sep 23:S1051-0443(21)01379-8

Issue 6

Popliteal vein aneurysm management

Layman's terms

Popliteal vein dilation **>2cm** must be carefully evaluated by a specialist for **surgical** treatment or **lifelong anticoagulation**.

Noppeney T, Kopp R, Pfister K, Schierling W, Noppeney J, Cucuruz B. Treatment of popliteal vein aneurysms. J Vasc Surg Venous Lymphat Disord. 2019 Jul;7(4):535-542.

Issue 6

Popliteal vein aneurysm thromboprophylaxis regimen



Tsubono M, Shimizu K, Sato S, Ito T, Ikeda T. Chronic Thromboembolic Pulmonary Hypertension Due to Popliteal Vein Aneurysm. Int Med Case Rep J. 2021 Feb 17;14:101-106

Issue 7

Venous malformations diagnostic and treatment protocol.

Layman's terms

Venous malformations are often underdiagnosed and require expert evaluation, together with at least **ultrasound** and, potentially, **magnetic resonance** assessment.

Lee BB. ISVI-IUA consensus document diagnostic guidelines of vascular anomalies: vascular malformations and hemangiomas. Int Angiol. 2015 Aug;34(4):333-74.

Issue 7

Venous malformation surveillance timeline



Della Rosa N, Bertozzi N, Adani R. Vascular malformation and their unpredictable evolution: A true challenge for physicians. Acta Biomed. 2020 Aug 25;91(3):e2020067. .

Issue 8

Artero-venous malformations diagnostic and treatment protocol.

Layman's terms

An **arterial** component inside a **venous** malformation should always be excluded before designing the treatment strategy

Lee BB, Do YS, Yakes W, Kim DI, Mattassi R, Hyon WS. Management of arteriovenous malformations: a multidisciplinary approach. J Vasc Surg. 2004 Mar;39(3):590-600

Issue 8

Artero-venous malformations best imaging options



Madani H, Farrant J, Chhaya N, et al. Peripheral limb vascular malformations: an update of appropriate imaging and treatment options of a challenging condition. *Br J Radiol*. 2015;88(1047):20140406. doi:10.1259/bjr.20140406

Issue 9

Marginal vein treatment strategies.

Layman's terms

The so-called “marginal vein” should not be ablated in case of aplasia of the deep system: a **pre-operative careful evaluation** is mandatory.

Mattassi R. **Vascular bone syndrome-angi-osteodystrophy: Current Concept.**
Phlebology. 2007; 22: 287-290.

Issue 9

Best technique for marginal vein treatment

Huegel U, Baumgartner I. Implementation of new endovenous treatments in therapy for lateral embryonic veins. *J Vasc Surg Cases Innov Tech.* 2019;5(3):243-247. Published 2019 Jun 25. doi:10.1016/j.jvscit.2018.12.016



HOT TOPIC

Issue 10

Conservative management for vascular malformations.

Layman's terms

Conservative treatment, mainly by **compression**, is recommended to most asymptomatic lower limb venous malformations, together with a **follow up** by experts in the specific malformations field.

Lee BB. International Union of Phlebology. Diagnosis and Treatment of Venous Malformations. Consensus Document of the International Union of Phlebology (IUP): updated 2013. Int Angiol. 2015 Apr;34(2):97-149.

Issue 10

Compression dosing & type for venous malformations



Langbroek GB, Horbach SE, van der Vleuten CJ, Ubbink DT, van der Horst CM.
Compression therapy for congenital low-flow vascular malformations of the
extremities: A systematic review. Phlebology. 2018 Feb;33(1):5-13.

OPEN CONTRIBUTIONS & DISCUSSION

from the v-WINter DUBAI meeting floor (in person)

from the world online on v-CONNECT



v-CONNECT



Domain 5

PELVIC VENOUS DISORDERS

Discussion Trigger
A. Gwozd
UK

Involved experts:

Gianesini S (EUR), Khilnani N (N AM), Jaworucka A, Lazarashvili Z (N EAST),
Narayanan S (ASIA), Stoughton J (N AM), Wittens C (EUR)

COI

NONE

Pelvic venous reflux role in pelvic pain

Layman's terms

1/3 of women experiences lower abdomen pain,
the source of which can be a pelvic venous reflux.

Ganeshan A, Upponi S, Hon LQ, Uthappa MC, Warakaulle DR, Uberoi R. Chronic pelvic pain due to pelvic congestion syndrome: the role of diagnostic and interventional radiology. Cardiovasc Intervent Radiol. 2007 Nov-Dec;30(6):1105-11.

Issue 1

Venous inflammation & pelvic pain pathophysiology

Gavrilov SG, Vassilieva GY, Vasilev IM, Grishenkova AS. The role of vasoactive neuropeptides in the genesis of venous pelvic pain: A review. *Phlebology*. 2020 Feb;35(1):4-9.

Champaneria R, Shah L, Moss J, Gupta JK, Birch J, Middleton LJ, Daniels JP. The relationship between pelvic vein incompetence and chronic pelvic pain in women: systematic reviews of diagnosis and treatment effectiveness. *Health Technol Assess*. 2016 Jan;20(5):1-108.



Public awareness in pelvic venous reflux.

Layman's terms

Only up to 40% of women are properly addressed to the specialist for pelvic venous disorder.

Ahangari A. Prevalence of chronic pelvic pain among women: an updated review. Pain Physician. 2014 Mar-Apr;17(2):E141-7.

Issue 2

multi-specialty and public pelvic venous awareness



HOT TOPIC

Jurga-Karwacka A, Karwacki GM, Schoetzau A, Zech CJ, Heinzelmann-Schwarz V, Schwab FD. A forgotten disease: Pelvic congestion syndrome as a cause of chronic lower abdominal pain. PLoS One. 2019 Apr 2;14(4):e0213834

Issue 3

Pelvic venous disorders symptomatology

Layman's terms

The following symptoms could be associated with a pelvic venous disorder: chronic pelvic pain for more than 6 months, flank pain, pain during sexual intercourse, alterations during the menstrual cycle, difficult/painful urination. Pelvic venous disorder can be also asymptomatic.

Antignani PL, Lazarashvili Z, Monedero JL, Ezpeleta SZ, Whiteley MS, Khilnani NM, Meissner MH, Wittens CH, Kurstjens RL, Belova L, Bokuchava M, Elkashishi WT, Jeanneret-Gris C, Geroulakos G, Giancesini S, de Graaf R, Krzanowski M, Al Tarazi L, Tessari L, Wikkeling M. Diagnosis and treatment of pelvic congestion syndrome: UIP consensus document. Int Angiol. 2019 Aug;38(4):265-283.

Issue 3

pelvic escape points role in pelvic symptomatology development



HOT TOPIC

Pelvic Congestion Syndrome: does one name fit all?
Gianesini S, Antignani PL, Tessari L. Phlebolympology 2016

Issue 4

Pelvic venous disorders signs.

Layman's terms

Dilated veins around the genitals and **blood in the urine** can be a sign of pelvic venous disorders

Khilnani NM. **Clinical Presentation and Evaluation of Pelvic Venous Disorders in Women.** Tech Vasc Interv Radiol. 2021 Mar;24(1):100730.

Issue 4

pelvic thrombosis association with venous reflux inflammation



HOT TOPIC

Amin T, Cohen H, Wong M, Goodhart V, Pointer SL, Jurkovic D. The prevalence of incidental uterine venous plexus thrombosis in women attending a gynecology clinic. J Thromb Haemost. 2020 Oct;18(10):2557-2565

Issue 5

Pelvic venous disorders risk factors.

Layman's terms

Multiple pregnancies, even if not completed, represent a risk factor for pelvic venous disorder. **Slim** subjects are more prone to develop pelvic reflux.

Bałabuszek K, Toborek M, Pietura R. Comprehensive overview of the venous disorder known as pelvic congestion syndrome. *Ann Med.* 2022;54(1):22-36.

Szary C, Wilczko J, Plucinska D, Pachuta A, Napierała M, Bodziony A, Zawadzki M, Grzela T. The Number of Pregnancies and Deliveries and Their Association with Selected Morphological and Hemodynamic Parameters of the Pelvic and Abdominal Venous System. *J Clin Med.* 2021 Feb 12;10(4):736.

Issue 5

lifestyle habits favoring pelvic refluxes



HOT TOPIC

Phillips D, Deipolyi AR, Hesketh RL, Midia M, Oklu R. Pelvic congestion syndrome: etiology of pain, diagnosis, and clinical management. J Vasc Interv Radiol. 2014 May;25(5):725-33.

Issue 6

Pelvic venous disorders diagnostic protocol

Layman's terms

Pelvic venous disorder diagnosis requires a detailed **ultrasound scanning** of the **abdominal** and **pelvic** region, together with the **lower limbs**.

Labropoulos N, Jasinski PT, Adrahtas D, Gasparis AP, Meissner MH. A standardized ultrasound approach to pelvic congestion syndrome. Phlebology. 2017 Oct;32(9):608-619.

Issue 6

periuterine venous plexus thrombosis detection

Leibovitz Z.
Diagnosis of pregnancy associated
uterine venous plexus thrombosis on the basis of transvaginal sonography.
J Ultrasound Med. 2003;22(3):287-293

Mavrelos D.
Diagnosis of uterine vein thrombosis on transvaginal ultrasound.
Ultrasound Obstet Gynecol. 2013;42:480-483.



Issue 7

Pelvic venous disorders indication to treatment

Layman's terms

Indication to treatment must be preceded by a **venography** performed in a high expertise medical center and **can not** be based just on venous dilation finding.

Rozenblit AM, Ricci ZJ, Tuvia J, Amis ES Jr. Incompetent and dilated ovarian veins: a common CT finding in asymptomatic parous women. AJR Am J Roentgenol. 2001 Jan;176(1):119-22.

Issue 7

Best procedural treatment protocol



HOT TOPIC

Bałabuszek K, Toborek M, Pietura R. Comprehensive overview of the venous disorder known as pelvic congestion syndrome. *Ann Med.* 2022;54(1):22-36. doi:10.1080/07853890.2021.2014556.

Issue 8

Pelvic venous disorders treatment safety

Layman's terms

Embolization of pelvic veins by **coils** and **sclerotherapy** is a safe and effective, but severe complications can happen, for which the treatment must be performed in a specialized center. ; provided overtreatment is avoided.

Lee BB, Do YS, Yakes W, Kim DI, Mattassi R, Hyon WS. Management of arteriovenous malformations: a multidisciplinary approach. J Vasc Surg. 2004 Mar;39(3):590-600

Issue 8

pelvic venous reflux treatment complications management.



HOT TOPIC

Hamoodi I, Hawthorn R, Moss JG. Can ovarian vein embolization cause more harm than good? J Obstet Gynaecol Res. 2015 Dec;41(12):1995-7.

Issue 9

Iliac/Renal vein compression management

Layman's terms

The majority of patients with iliac and or renal vein compression are **asymptomatic** and require **no invasive treatment**.

Leal Monedero J, Zubicoa Ezpeleta S, Perrin M. Management of left renal vein compression in patients presenting left gonadal vein reflux. Phlebology. 2018 Aug;33(7):475-482

Issue 9

Real incidence of iliac/renal vein compression

Góes AMO, Araújo RS, Furlaneto IP, Vieira WB. Compression of left renal vein and left common iliac vein on CT scans: how often are they detected?. *J Vasc Bras.* 2020;19:e20190121. Published 2020 Jun 1. doi:10.1590/1677-5449.190121



HOT TOPIC

Issue 10

Pelvic venous disorders follow up

Layman's terms

Pelvic symptoms improvement can require **some months** after the treatment.

Laborda A, Medrano J, de Blas I, Urtiaga I, Carnevale FC, de Gregorio MA. Endovascular treatment of pelvic congestion syndrome: visual analog scale (VAS) long-term follow-up clinical evaluation in 202 patients. Cardiovasc Intervent Radiol. 2013 Aug;36(4):1006-14. 1

Issue 10

QoL measurement in pelvic venous disorder



Maratto S, Khilnani NM, Winokur RS. Clinical Presentation, Patient Assessment, Anatomy, Pathophysiology, and Imaging of Pelvic Venous Disease. Semin Intervent Radiol. 2021 Jun;38(2):233-238.

OPEN CONTRIBUTIONS & DISCUSSION

from the v-WINter DUBAI meeting floor (in person)

from the world online on v-CONNECT



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Domain 6

VENOUS THROMBOSIS

Discussion Trigger
W. SPENCER
USA

Involved experts:

Caprini J (N AM), Diaz J (N/S AM), Ganesini S (EUR), Lobastov K (EUR), Liew NC (ASIA), Ramacciotti E (S AM)

COI

NONE

Proper venous thrombosis risk assessment

Layman's terms

Everyone should be informed by the **General Practitioner** about his/her thrombotic risk factors. In case of significant risk, the assessment must be completed by **clinical, laboratory and diagnostics evaluations** under the guidance of an expert.

Cushman M. Epidemiology and risk factors for venous thrombosis. *Semin Hematol.* 2007;44(2):62-69. doi:10.1053/j.seminhematol.2007.02.0041

Issue 1

Multi-specialty thrombotic risk assessment awareness



HOT TOPIC

Nana M, Shute C, Williams R, Kokwaro F, Riddick K, Lane H. Multidisciplinary, patient-centred approach to improving compliance with venous thromboembolism (VTE) prophylaxis in a district general hospital. *BMJ Open Qual.* 2020 Jul;9(3):e000680.

Venous thrombosis diagnostic work-up

Layman's terms

Leg thrombosis **symptoms** include pain, swelling, redness, tenderness, fever, prominent veins, pain with passive foot dorsiflexion, peripheral bluish skin discoloration.

Absence of symptoms does not exclude thrombosis

An **ultrasound scanning** must always be done to confirm the diagnosis.

Limited value of patient history and physical examination in diagnosing deep vein thrombosis in primary care.

Issue 2

re-evaluation in suspected negative cases in covid time



HOT TOPIC

Demelo-Rodríguez P, Cervilla-Muñoz E, Ordieres-Ortega L, Parra-Virto A, Toledano-Macías M, Toledo-Samaniego N, García-García A, García-Fernández-Bravo I, Ji Z, de-Miguel-Diez J, Álvarez-Sala-Walther LA, Del-Toro-Cervera J, Galeano-Valle F. Incidence of asymptomatic deep vein thrombosis in patients with COVID-19 pneumonia and elevated D-dimer levels. Thromb Res. 2020 Aug;192:23-26.

Issue 3

Thrombotic risk management in obese and CVD patients

Layman's terms

Obese and/or varicose veins patients are at higher risk of developing complications after a thrombosis.

Tick LW, Kramer MH, Rosendaal FR, Faber WR, Doggen CJ. Risk factors for post-thrombotic syndrome in patients with a first deep venous thrombosis. J Thromb Haemost. 2008 Dec;6(12):2075-81

Issue 3

BMI & CVD stage cut off values for increased risk

Jahmani J. Relationship between body mass index, risk of venous thromboembolism and pulmonary embolism: A systematic review and dose-response meta-analysis of cohort studies among four million participants. Thromb Res. 2020 Aug;192:64-72.

Tick LW, Kramer MH, Rosendaal FR, Faber WR, Doggen CJ. Risk factors for post-thrombotic syndrome in patients with a first deep venous thrombosis. J Thromb Haemost. 2008 Dec;6(12):2075-81



HOT TOPIC

Issue 4

Proper use of genetic testing for venous thrombo-embolism

Layman's terms

Genetic tests to identify predisposition should be performed in a **first episode** of **spontaneous thrombosis**, patients with thrombosis **under 50 years old**, thrombosis with the **only risk factor of hormonal therapy or pregnancy**, **recurrent thrombosis**.

Colucci G, Tsakiris DA. Thrombophilia Screening: Universal, Selected, or Neither? Clin Appl Thromb Hemost. 2017 Nov;23(8):893-899.

Issue 4

thrombophilia testing in DOAC time



Darlow J, Mould H. Thrombophilia testing in the era of direct oral anticoagulants. Clin Med (Lond). 2021 Sep;21(5):e487-e491.

Issue 5

Cancer related venous thrombosis management

Layman's terms

Cancer must be excluded, especially in venous thrombosis without evident cause.

Delluc A. Real-world incidence of cancer following a first unprovoked venous thrombosis: Results from the EPIGETBO study. Thromb Res. 2018 Apr;164:79-84

Issue 5

Cancer screening in unprovoked thrombosis



HOT TOPIC

Ferreira F, Pereira J, Lynce A, Nunes Marques J, Martins A. Cancer Screening in Patients with Unprovoked Thromboembolism: How to do it and Who Benefits?. *Cureus*. 2020;12(2):e6934. Published 2020 Feb 10. doi:10.7759/cureus.6934

Issue 6

Proper treatment of superficial venous thrombosis.

Layman's terms

Superficial venous thrombosis **does not always require anticoagulation**,
but an **expert physician evaluation** is mandatory.

Issue 6

optimal treatment for SVT



HOT TOPIC

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.

Issue 7

Acute ilio-femoral thrombosis management

Layman's terms

Acute ilio-femoral thrombosis can be treated by thrombolysis if highly symptomatic, eventually by specific catheters. The indication to their use varies among countries and requires a specialist careful evaluation of the risk/benefit.

Gianesini S. Global guidelines trends and controversies in lower limb venous and lymphatic disease. Phlebology. 2019 Sep;34(1 Suppl):4-66

Issue **7**

Best candidate to CDT



HOT TOPIC

Cushman M, Barnes GD, Creager MA, et al.: **A Scientific Statement From the American Heart Association and the International Society on Thrombosis and Haemostasis.** Circulation. 2020 Aug 11;142(6):e85-e94.

Issue 8

Pharmaco-mechanical thrombolysis indications and complications management

Layman's terms

Pharmaco-mechanical thrombolysis is **safe** in **expert** hands and after proper evaluation of the **risk/benefit** and **overtreatment avoidance**.

Liu X, Cao P, Li Y, et al. Safety and efficacy of pharmacomechanical thrombolysis for acute and subacute deep vein thrombosis patients with relative contraindications. *Medicine (Baltimore)*. 2018;97(43):e13013

Issue 8

PMT large RCT

rate of recurrence

mortality

rate of chronic thromboembolic pulmonary hypertension



HOT TOPIC

Meneveau N. Unmet needs in the management of pulmonary embolism: catheter-directed therapy looks set to fill the void. *Eur Heart J Suppl.* 2019;21(Suppl 1):114-115. doi:10.1093/eurheartj/suz225

Tang T, Chen L, Chen J, Mei T, Lu Y. Pharmacomechanical Thrombectomy Versus Catheter-Directed Thrombolysis for Iliofemoral Deep Vein Thrombosis: A Meta-Analysis of Clinical Trials. *Clin Appl Thromb Hemost.* 2019 Jan-Dec;25:1076029618821190.

Issue 9

Anticoagulation therapy indication and contraindication.

Layman's terms

Before starting anticoagulation therapy, all patients must undergo an assessment of renal function, of pro-thrombin time and of activated partial thromboplastin time. For vitamin K antagonist and heparin, full blood count must be included.

Tripodi A, Ageno W, Ciaccio M, Legnani C, Lippi G, Manotti C, Marcucci R, Moia M, Morelli B, Poli D, Steffan A, Testa S. Position Paper on laboratory testing for patients on direct oral anticoagulants. A Consensus Document from the SIsET, FCSA, SIBioC and SIPMeL. Blood Transfus. 2018 Sep;16(5):462-470.

Issue **9**

prophylaxis and treatment of VTE in high-risk patient groups: cancer and critically ill

Brenner B, Hull R, Arya R, Beyer-Westendorf J, Douketis J, Elalamy I, Imberti D, Zhai Z.
Evaluation of unmet clinical needs in prophylaxis and treatment of venous
thromboembolism in high-risk patient groups: cancer and critically ill. *Thromb J.* 2019 Apr
15;17:6.



HOT TOPIC

Issue 10

DOACS use in acute venous thrombo-embolism management

Layman's terms

Rivaroxaban and Apixaban can be taken into consideration by the specialist as option for most adult in case of acute venous thrombo-embolism

Stevens H. **Venous thromboembolism: current management.** *Aust Prescr.* 2019;42(4):123-126.

Issue 10

outpatient setting selection in DVT management

Ioannou P, Kladou E. Anticoagulation management in deep venous thrombosis - real world data and unmet needs. *Hippokratia*. 2019;23(3):144.

Ioannou P, Tsagkaraki E, Andrianaki AM, Papadakis JA. Unnecessary hospitalizations for DVT in the era of NOACs. *Eur J Intern Med*. 2017;44:e40–e41



HOT TOPIC

OPEN CONTRIBUTIONS & DISCUSSION

from the v-WINter DUBAI meeting floor (in person)

from the world online on v-CONNECT



v-CONNECT



Domain 7

VENOUS ULCER

Discussion Trigger
E. INTRIAGO
ECUADOR

Involved experts:

Gianesini S (EUR), Latorre (LATAM), Lourdes R (EUR), Malouf M (AUSTRALIA), Raffetto (N AM), Romanelli M (EUR)

COI

NONE

Venous ulcer pathophysiology

Layman's terms

Approximately 70% of skin ulcer has a venous origin.

1/5 ulcers have a multi-factorial component that has to be investigated

Ruckley CV, Bradbury AW, Stuart W. Chronic venous ulcer. Causes are often multifactorial and a holistic approach is required. *BMJ*. 1997;315(7101):189.

Alavi A, Sibbald RG, Phillips TJ, Miller OF, Margolis DJ, Marston W, Woo K, Romanelli M, Kirsner RS. What's new: Management of venous leg ulcers: Treating venous leg ulcers. *J Am Acad Dermatol*. 2016 Apr;74(4):643-64

Issue 1

Mixed ulcer management



Harding JP, Hedayati N. Challenges of treating mixed arterial-venous disease of lower extremities. J Cardiovasc Surg (Torino). 2021 Oct;62(5):435-446.

Venous ulcer proper description

Layman's terms

Proper assessment of a venous ulcer must report location, size, shape, surrounding area description, type of floor, edge & discharge

Issue 2

ulcer

Ph & temperature assessment real clinical value

Power G, Moore Z, O'Connor T. Measurement of pH, exudate composition and temperature in wound healing: a systematic review. J Wound Care. 2017 Jul 2;26(7):381-397



HOT TOPIC

Issue 3

Venous proper ulcer diagnosis work-up

Layman's terms

Proper ulcer diagnosis requires detailed **anamnesis**, **clinical** visit, **arterial** & **venous ultrasound** scanning, **lymphatic** function assessment, **ankle-brachial index** calculation

Tick LW, Kramer MH, Rosendaal FR, Faber WR, Doggen CJ. Risk factors for post-thrombotic syndrome in patients with a first deep venous thrombosis. J Thromb Haemost. 2008 Dec;6(12):2075-81

Issue 3

ulcer patient mobility assessment

Clarke-Moloney M, Godfrey A, O'Connor V, Meagher H, Burke PE, Kavanagh EG, Grace PA, Lyons GM. Mobility in patients with venous leg ulceration. Eur J Vasc Endovasc Surg. 2007 Apr;33(4):488-93.



HOT TOPIC

Issue 4

Antibiotics use in wound healing

Layman's terms

Culturing and systemic antibiotics are indicated only in presence of signs and symptoms of infection.

Antimicrobials are not recommended in just contaminated wounds

O'Meara S, Al-Kurdi D, Ologun Y, Ovington LG, Martyn-St James M, Richardson R. Antibiotics and antiseptics for venous leg ulcers. Cochrane Database of Systematic Reviews 2014, Issue 1. Art. No.: CD003557.

Issue 4

venous ulcer infection prevention & best management



Bui UT, Finlayson K, Edwards H. Risk factors for infection in patients with chronic leg ulcers: A survival analysis. Int J Clin Pract. 2018 Dec;72(12):e13263.

Issue 5

Biopsy in ulcer management

Layman's terms

In case of **atypical appearance** a biopsy must be performed to exclude **malignancy**, **vasculitis** or **arterial sclerosis**

Evidence-based (S3) guidelines for diagnostics and treatment of venous leg ulcers. J
Eur Acad Dermatol Venereol. 2016 Nov;30(11):1843-1875

Issue 5

Features of an atypical venous ulcer

Senet P, Combemale P, Debure C, Baudot N, Machet L, Aout M, Vicaut E, Lok C; Angio-Dermatology Group Of The French Society Of Dermatology. Malignancy and chronic leg ulcers: the value of systematic wound biopsies: a prospective, multicenter, cross-sectional study. Arch Dermatol. 2012 Jun;148(6):704-8

Stansal A,[When to ask for a skin biopsy in a patient with leg ulcer? Retrospective study of 143 consecutive biopsies]. J Med Vasc. 2018 Feb;43(1):4-9



HOT TOPIC

Issue 6

Compression protocols in venous ulcer patients

Layman's terms

Compression is the mainstay of ulcer healing and can be performed by proper **bandage**, graduated compression **stocking** and **adjustable compression** use, following **expert prescription** and **application**.

In difficult healing cases, **intermittent pneumatic compression** can provide a valuable option

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.

Issue 6

Post ulcer healing compression protocols

Nelson EA, Bell-Syer SE. Compression for preventing recurrence of venous ulcers. Cochrane Database Syst Rev. 2014 Sep 9;2014(9):CD002303.



HOT TOPIC

Issue 7

Venous reflux suppression best strategy in venous ulcer patients

Layman's terms

Early restoration of superficial venous reflux is indicated in venous ulcer management.

Gohel MS, Heatley F, Liu X, Bradbury A, Bulbulia R, Cullum N, Epstein DM, Nyamekye I, Poskitt KR, Renton S, Warwick J, Davies AH; EVRA Trial Investigators. A Randomized Trial of Early Endovenous Ablation in Venous Ulceration. N Engl J Med. 2018 May 31;378(22):2105-2114

Issue **7**

VAD role in ulcer healing



HOT TOPIC

Pompilio G, Nicolaides A, Kakkos SK, Integlia D. Systematic literature review and network Meta-analysis of sulodexide and other drugs in chronic venous disease. *Phlebology*. 2021 Oct;36(9):695-709

Issue 8

Advanced wound dressings evidence based need in woundcare.

and complications management

Layman's terms

Advanced wound dressings might improve ulcer healing process, but **no strong evidence** is supporting one product over another.

Norman G, Westby MJ, Rithalia AD, Stubbs N, Soares MO, Dumville JC.
Dressings and topical agents for treating venous leg ulcers. Cochrane Database
Syst Rev. 2018 Jun 15;6(6):CD012583.

Issue 8

advanced dressings cost-effectiveness in venous ulcer management

Cheng Q, Gibb M, Graves N, Finlayson K, Pacella RE. Cost-effectiveness analysis of guideline-based optimal care for venous leg ulcers in Australia. *BMC Health Serv Res.* 2018 Jun 7;18(1):421.

Tricco AC, Cogo E, Isaranuwachai W, et al. A systematic review of cost-effectiveness analyses of complex wound interventions reveals optimal treatments for specific wound types. *BMC Med.* 2015;13:90. Published 2015 Apr 22. doi:10.1186/s12916-015-0326-3

Meissner MH. Venous ulcer care: which dressings are cost effective? *Phlebology.* 2014 May;29(1 suppl):174-180.



Issue 9

Skin grafting, Negative Pressure Therapy, Stem cells therapy: EB state of the art.

Layman's terms

Skin grafting, Negative Pressure Therapy, Stem cells therapy can be valuable options in specific cases assessed by experts, but more scientific evidence is needed for supporting their routine use

Chouhan D. Emerging and innovative approaches for wound healing and skin regeneration: Current status and advances. *Biomaterials*. 2019 Sep;216:119267

Zollino I, Zuolo M, Giancesini S, Pedriali M, Sibilla MG, Tessari M, Carinci F, Occhionorelli S, Zamboni P. Autologous adipose-derived stem cells: Basic science, technique, and rationale for application in ulcer and wound healing. *Phlebology*. 2017 Apr;32(3):160-171.

Ren SY, Liu YS, Zhu GJ, et al. Strategies and challenges in the treatment of chronic venous leg ulcers. *World J Clin Cases*. 2020;8(21):5070-5085. doi:10.12998/wjcc.v8.i21.5070

Issue 9

prophylaxis and treatment of VTE in high-risk patient groups: cancer and critically ill



HOT TOPIC

Piscaglia AC. Stem cells, a two-edged sword: risks and potentials of regenerative medicine. *World J Gastroenterol*. 2008;14(27):4273-4279. doi:10.3748/wjg.14.4273

Elgarhy LH, El-Ashmawy AA, Bedeer AE, Al-Bahnasy AM. Evaluation of safety and efficacy of autologous topical platelet gel vs platelet rich plasma injection in the treatment of venous leg ulcers: A randomized case control study. *Dermatol Ther*. 2020 Nov;33(6):e13897.

Issue 10

Venous ulcer recurrence management

Layman's terms

Ulcer recurrence is present in up to 69% of cases.

Proper compression and management can reduce the risk of ulcer reappearance

Finlayson K, Wu ML, Edwards HE. Identifying risk factors and protective factors for venous leg ulcer recurrence using a theoretical approach: A longitudinal study. Int J Nurs Stud. 2015 Jun;52(6):1042-51. .

Issue 10

Ulcer recurrence reduction in modern wound healing



HOT TOPIC

Rocha MNB, Serna Gonzalez CV, Borges EL, Santos VLCG, Rabeh SAN, Nogueira PC. Incidence of Recurrent Venous Ulcer in Patients Treated at an Outpatient Clinic: Historical Cohort. Int J Low Extrem Wounds. 2022 Jan 4:15347346211065929..

OPEN CONTRIBUTIONS & DISCUSSION

from the v-WINter DUBAI meeting floor (in person)

from the world online on v-CONNECT



v-CONNECT



Domain 8

VENOUS ACTIVE DRUGS

Discussion Trigger
A. BATURONE
SPAIN

Involved experts

Bottini O (LATAM), Giancesini S (EUR), Mansilha A (EUR), Raffetto J (N AM), Rial R (EUR), Urbanek T (EUR), Wang J (ASIA)

COI

NONE

Certified & validated venous active drugs.

Layman's terms

An excess of products in the market are **claiming** activities on the venous –lymphatic system that are **not properly scientifically demonstrated**.

Relying on **expert physicians** advise is mandatory.

Pray WS. **Ethical, scientific, and educational concerns with unproven medications.** *Am J Pharm Educ.* 2006;70(6):141.

Issue 1

Scientific societies action against VAD misinformation



Misinformation and public opinion of science and health: Approaches, findings,
and future directions

Michael A. Cacciatore

Proceedings of the National Academy of Sciences Apr
2021, 118 (15) e1912437117

MPFF evidence-based use in CVD management.

Layman's terms

Micronized Purified Flavonoid Fraction demonstrated to **improve the venous tone**, reduce **swelling**, improve venous **ulcer healing**, improve venous insufficiency **symptoms** and **signs** and related **quality of life**.

Kakkos SK, Nicolaidis AN. Efficacy of micronized purified flavonoid fraction (Daflon®) on improving individual symptoms, signs and quality of life in patients with chronic venous disease: a systematic review and meta-analysis of randomized double-blind placebo-controlled trials. Int Angiol. 2018 Apr;37(2):143-154.

Issue 2

MPFF in Pelvic Venous Disorders

Gavrilov SG, Moskalenko YP, Karalkin AV. Effectiveness and safety of micronized purified flavonoid fraction for the treatment of concomitant varicose veins of the pelvis and lower extremities. Curr Med Res Opin. 2019 Jun;35(6):1019-1026.



HOT TOPIC

Issue 3

Sulodexide evidence-based use in CVD management.

Layman's terms

Sulodexide has been extensively investigated and demonstrated to reduce **venous hypertension**, significantly improve **venous ulcer healing**, improve venous insufficiency **symptoms** and **signs** and related **quality of life**, reduce the risk of **venous-thromboembolism** recurrence.

Issue 3

Sulodexide inclusion in ulcer prevention & treatment protocols

Pompilio G, Nicolaides A, Kakkos SK, Integlia D. Systematic literature review and network Meta-analysis of sulodexide and other drugs in chronic venous disease. *Phlebology*. 2021 Oct;36(9):695-709.

Nicolaides A, Kakkos S, Baekgaard N, Comerota A, de Maeseneer M, Eklof B, Giannoukas A, Lugli M, Maleti O, Mansilha A, Myers KA, Nelzén O, Partsch H, Perrin M. Management of chronic venous disorders of the lower limbs. Guidelines According to Scientific Evidence. Part II. *Int Angiol*. 2020 Jun;39(3):175-240.



Issue 4

Rutosides evidence-based use in CVD management.

Layman's terms

Rutosides demonstrated to reduce **swelling** and improve venous disease **symptoms** and **signs**.

Some studies suggest it can reduce symptoms after a deep venous thrombosis, but **no evidence** suggests its use for post-thrombotic syndrome prevention.

Issue 4

Rutosides advantages compared to the other VADs, including cost-effectiveness analysis



HOT TOPIC

Martinez-Zapata MJ, Vernooij RW, Simancas-Racines D, Uriona Tuma SM, Stein AT, Moreno Carriles RMM, Vargas E, Bonfill Cosp X. Phlebotonics for venous insufficiency. Cochrane Database Syst Rev. 2020 Nov 3;11(11):CD003229

Issue 5

Calcium Dobesilate evidence-based use in CVD management.

Layman's terms

Calcium Dobesilate demonstrated to potentially reduce swelling,
improve venous disease symptoms and signs in specific cases.

Liu J, Li S, Sun D. Calcium Dobesilate and Micro-vascular diseases.
Life Sci. 2019 Mar 15;221:348-353

Issue 5

Calcium Dobesilate safety profile



HOT TOPIC

Allain H, Ramelet AA, Polard E, Bentué-Ferrer D. Safety of calcium dobesilate in chronic venous disease, diabetic retinopathy and haemorrhoids. *Drug Saf.* 2004;27(9):649-60

Issue 6

Pentoxifylline evidence-based use in CVD management.

Layman's terms

Pentoxifylline can be used in venous ulcer management.

Jull AB, Arroll B, Parag V, Waters J. Pentoxifylline for treating venous leg ulcers. *Cochrane Database Syst Rev.* 2012;12(12):CD001733. Published 2012 Dec 12. doi:10.1002/14651858.CD001733.pub3

SDX vs Pentoxifylline in ulcer treatment

Recommendation 82			Unchanged
For patients with active venous leg ulceration, micronised purified flavonoid fraction, hydroxyethylrutosides, pentoxifylline, or sulodexide should be considered, as an adjunct to compression and local wound care to improve ulcer healing.			
Class	Level	References	ToE
Ila	A	Coleridge-Smith <i>et al.</i> (2005), ⁴⁶¹ Jull <i>et al.</i> (2012), ⁴⁶⁴ Scallan <i>et al.</i> (2013), ⁴⁶² Wu <i>et al.</i> (2016) ⁴⁶³	

De Maeseneer MG. European Society for Vascular Surgery (ESVS) 2022 Clinical Practice Guidelines on the Management of Chronic Venous Disease of the Lower Limbs. *Eur J Vasc Endovasc Surg.* 2022 Jan 10:S1078-5884(21)00979-5.

Nelson EA. Venous leg ulcers. *BMJ Clin Evid.* 2011;2011:1902. Published 2011 Dec 21.



HOT TOPIC

Issue 7

Topical creams evidence-based use in CVD management

Layman's terms

Topical cream can bring an **empirical benefit** in patients with venous and/or lymphatic symptoms/signs, but the **scientific literature is lacking** strong evidence. An expert physician **indication to the right product** is mandatory

Issue 7

Topical products false claims



Nolan KA, Marmur ES. Over-the-counter topical skincare products: a review of the literature. J Drugs Dermatol. 2012 Feb;11(2):220-4.

<https://50plus-today.com/false-claims-skin-care/>

Issue 8

Medical honey evidence-based use in CVD management

Layman's terms

Specific topicals containing medical honey demonstrated to be useful in **partial thickness burns** and **infected post-operative wounds**, while **no robust evidence** support their use **in other type of lesions** at the current moment.

Medical honey evidence-based use in chronic venous disease management
Jull AB. **Honey as a topical treatment for wounds**. Cochrane Database of
Systematic Reviews 2015, Issue 3. Art. No.: CD005083.

Tashkandi H. Honey in wound healing: An updated review. Open Life Sci. 2021 Oct
6;16(1):1091-1100.

Issue 8

Medical honey cost-effectiveness in venous ulcers management

Moghazy AM, Shams ME, Adly OA, Abbas AH, El-Badawy MA, Elsakka DM, Hassan SA, Abdelmohsen WS, Ali OS, Mohamed BA. The clinical and cost effectiveness of bee honey dressing in the treatment of diabetic foot ulcers. Diabetes Res Clin Pract. 2010 Sep;89(3):276-81.



HOT TOPIC

Issue 9

Supplement or dietary derived products meaning in CVD management.

Layman's terms

Up to the knowledge of this experts panel, **no supplement** or **dietary derived** has demonstrated to significantly improve venous and or lymphatic function.

No available evidence

Issue 9

false claims in supplements and food-derived products for vein-lympahtic disease management

Muela-Molina C, Perelló-Oliver S, García-Arranz A. False and misleading health-related claims in food supplements on Spanish radio: an analysis from a European Regulatory Framework. Public Health Nutr. 2021 Oct;24(15):5156-5165

Martínez-Sanz JM, Mata F, Sala Ripoll M, Puya Braza JM, Martínez Segura A, Sánchez Oliver AJ, Cortell Tormo JM. Fraude en suplementos nutricionales para deportistas: revisión narrativa [Fraud in nutritional supplements for athletes: a narrative review]. Nutr Hosp. 2021 Jul 29;38(4):839-847.



HOT TOPIC

Issue 10

Dosing and timing of validated venous active drugs treatments.

Layman's terms

The **duration & dosing** protocol of the above report substances intake must follow the **single case prescription** of the expert physician

Kirienko A, Radak D, Maggioli A. Clinical efficacy of once-daily micronized purified flavonoid fraction 1000 mg tablet in patients with symptomatic chronic venous disease. Curr Med Res Opin. 2019 Mar;35(3):553-557

Elleuch N, Zidi H, Bellamine Z, Hamdane A, Guerchi M, Jellazi N; CVD study investigators. Sulodexide in Patients with Chronic Venous Disease of the Lower Limbs: Clinical Efficacy and Impact on Quality of Life. Adv Ther. 2016 Sep;33(9):1536-49.

Issue 10

Dose & timing adjustments based on the specific case

Gavrilov SG, Karalkin AV, Moskalenko YP, Grishenkova AS. Efficacy of two micronized purified flavonoid fraction dosing regimens in the pelvic venous pain relief. *Int Angiol.* 2021 Jun;40(3):180-186.

Andreozzi GM. Sulodexide for the Prevention of Recurrent Venous Thromboembolism: The Sulodexide in Secondary Prevention of Recurrent Deep Vein Thrombosis (SURVET) Study: A Multicenter, Randomized, Double-Blind, Placebo-Controlled Trial. *Circulation.* 2015 Nov 17;132(20):1891-7.



HOT TOPIC

OPEN CONTRIBUTIONS & DISCUSSION

from the v-WINter DUBAI meeting floor (in person)

from the world online on v-CONNECT



v-CONNECT



Domain 9

GRADUATED COMPRESSION

Discussion Trigger
V. GOLOVINA
RUSSIA

Involved experts:

Chernuka L (EUR), Giancesini S (EUR), Lurie F (N AM), Mo M (ASIA),
Rial R (EUR), Santiago F (S AM), Zolotukhin I (EUR-ASIA)

COI

NONE

Compression stockings certification requirements.

Layman's terms

Compression graduated stocking must be **certified**, report the exerted pressure in millimeters of mercury and be indicated **by an expert** health-professional.

Neumann HA, Partsch H, Mosti G, Flour M. Classification of compression stockings: report of the meeting of the International Compression Club, Copenhagen. Int Angiol. 2016 Apr;35(2):122-8

Issue 1

Scientific societies action against not certified compression

Berszakiewicz A, Sieroń A, Kasiński Z, Cholewka A, Stanek A. Compression therapy in venous diseases: current forms of compression materials and techniques. *Postepy Dermatol Alergol.* 2020;37(6):836-841. doi:10.5114/ada.2019.86991

Office of the Surgeon General (OSG). Confronting Health Misinformation: The U.S. Surgeon General's Advisory on Building a Healthy Information Environment [Internet]. Washington (DC): US Department of Health and Human Services; 2021. References. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK572167/>



Compression compliance optimization

Layman's terms

If properly prescribed and applied, compression stockings are **highly tolerable**. Specific devices can help donning and doffing them.

Raju S. **Use of compression stockings in chronic venous disease: patient compliance and efficacy.** Ann Vasc Surg 2007;21:790-5.

Issue 2

Strategies to increase health professional compression education

Gong JM, Du JS, Han DM, Wang XY, Qi SL. Reasons for patient non-compliance with compression stockings as a treatment for varicose veins in the lower limbs: A qualitative study. *PLoS One*. 2020;15(4):e0231218



HOT TOPIC

Issue 3

Compression prescription education requirements

Layman's terms

An expert health professional **must educate the user** of graduated compression stocking on how to use them at best.

Yaping Xu
Knowledge, attitude, and practice of healthcare professionals toward
clinically applying graduated compression stockings: results of a Chinese
web-based survey
Journal of Thrombosis and Thrombolysis (2019) 47:102–108

Issue 3

Strategies to increase patients education in compression

Dawson AJ, Akaberi A, Galanaud JP, Morrison DR, Kahn SR; SOX Trial investigators. Patient-reported reasons for and predictors of noncompliance with compression stockings in a randomized trial of stockings to prevent postthrombotic syndrome. Res Pract Thromb Haemost. 2019 Dec 29;4(2):269-277.



HOT TOPIC

Issue 4

Compression in healthy subjects.

Layman's terms

Specific certified compression stockings demonstrated to be useful in **healthy subjects at risk of swelling**.

Rabe E. **Indications for medical compression stockings in venous and lymphatic disorders: a n evidence-based consensus statement.**
Phlebology 2018, Vol. 33(3) 163–184

Junior OAS, Rollo HA, Saliba O, Sobreira ML. Compression stocking prevents increased venous retrograde flow time in the lower limbs of pregnant women. Phlebology. 2020 Dec;35(10):784-79

Issue 4

Compression value in healthy subjects in standing, sitting, walking



HOT TOPIC

Gianesini S, Raffetto JD, Mosti G, Maietti E, Sibilla MG, Zamboni P, Menegatti E. Volume control of the lower limb with graduated compression during different muscle pump activation conditions and the relation to limb circumference variation. J Vasc Surg Venous Lymphat Disord. 2020 Sep;8(5):814-820

Issue 5

Compression indications and specifics through the CEAP C1-C6 spectrum.

Layman's terms

Specific certified compression stockings demonstrated to be beneficial in **all stages** of leg venous disease, in venous **ulcer recurrence reduction**, in **lymphatic disorders**, in **thrombo-embolism** and **post-thrombotic prevention and management**.

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.

Issue 5

Compression best dose & type in the different venous-lymphatic disease stages

Vanscheidt W, Ukat A, Partsch H. Dose-response of compression therapy for chronic venous edema--higher pressures are associated with greater volume reduction: two randomized clinical studies. J Vasc Surg. 2009 Feb;49(2):395-402

Lattimer CR, Kalodiki E, Azzam M, Geroulakos G. Haemodynamic Performance of Low Strength Below Knee Graduated Elastic Compression Stockings in Health, Venous Disease, and Lymphoedema. Eur J Vasc Endovasc Surg. 2016 Jul;52(1):105-12.



HOT TOPIC

Superficial and deep venous post-procedural compression timing and dosing

Layman's terms

Certified compression stockings **can be useful** after a procedure on the venous system.

Only expert **health-professionals** can recommend specific compression **type** and **duration**.

Lurie F,. Compression therapy after invasive treatment of superficial veins of the lower extremities: Clinical practice guidelines of the American Venous Forum, Society for Vascular Surgery, American College of Phlebology, Society for Vascular Medicine, and International Union of Phlebology. J Vasc Surg Venous Lymphat Disord. 2019 Jan;7(1):17-28.

Post deep venous procedure best compression protocol

Mayberry JC, Moneta GL, DeFrang RD, Porter JM. The influence of elastic compression stockings on deep venous hemodynamics. J Vasc Surg. 1991 Jan;13(1):91-9; discussion 99-100.



HOT TOPIC

Issue 7

Bandages indication in venous and lymphatic disease management.

Layman's terms

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

Shi C, Dumville JC, Cullum N, Connaughton E, Norman G. Compression bandages or stockings versus no compression for treating venous leg ulcers. Cochrane Database of Systematic Reviews 2021, Issue 7. Art. No.: CD013397

Issue 7

interface pressure variability clinical impact & related literature bias



HOT TOPIC

Protz K, Heyer K, Verheyen-Cronau I, Augustin M. Loss of interface pressure in various compression bandage systems over seven days. *Dermatology*. 2014;229(4):343-52. /

Issue 8

Adjustable compression role indication in venous and lymphatic disease management

Layman's terms

A specific adjustable compression wrap demonstrated clinical and cost effectiveness superiority in ulcer healing and leg venous-lymphatic edema compared to bandaging.

Mosti G, Cavezzi A, Partsch H, Urso S, Campana F. Adjustable Velcro Compression Devices are More Effective than Inelastic Bandages in Reducing Venous Edema in the Initial Treatment Phase: A Randomized Controlled Trial. Eur J Vasc Endovasc Surg. 2015 Sep;50(3):368-74

Mosti G, Mancini S, Bruni S, Serantoni S, Gazzabin L, Bucalossi M, Polignano R, Mariani F, Luca B, Partsch H; MIRACLE Trial investigators. Adjustable compression wrap devices are cheaper and more effective than inelastic bandages for venous leg ulcer healing. A Multicentric Italian Randomized Clinical Experience. Phlebology. 2020 Mar;35(2):124-133

Issue 8

ACW limiting factors and different brands performance

Stather PW, Petty C, Howard AQ. Review of adjustable velcro wrap devices for venous ulceration. *Int Wound J*. 2019;16(4):903-908. doi:10.1111/iwj.13116



HOT TOPIC

Issue 9

IPC indication in venous and lymphatic disease management.

Layman's terms

IPC represents a **valuable option** in leg venous **ulcer**, thrombo-embolism **prophylaxis** and **edema** management.

The **timing** and **dosage** is variable and must be indicated by the expert health-professional based on the single specific case.

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.

Issue 9

IPC validated timing and dose



HOT TOPIC

Nandwana S. A comparison of different modes of pneumatic compression on muscle tissue oxygenation: An intraparticipant, randomised, controlled volunteer study. Anaesthesia and Intensive Care 2019;47:23–31

Issue 10

Graduated compression safety profile and contraindications

Layman's terms

Properly prescribed compression is **safe**. Possible **contraindications** are: neuropathy, skin alterations, heart failure, severe limb asymmetry.

In peripheral arterial disease compression can be of benefit in specific cases, after careful evaluation.

Stücker M, Danneil O, Dörler M, Hoffmann M, Kröger E, Reich-Schupke S.
Safety of a compression stocking for patients with chronic venous
insufficiency (CVI) and peripheral artery disease (PAD). J Dtsch Dermatol Ges.
2020 Mar;18(3):207-213.

Issue 10

Compression in lymphangitis treatment and prevention

Webb E, Neeman T, Bowden FJ, Gaida J, Mumford V, Bissett B. Compression Therapy to Prevent Recurrent Cellulitis of the Leg. N Engl J Med. 2020 Aug 13;383(7):630-639.



HOT TOPIC

OPEN CONTRIBUTIONS & DISCUSSION

from the v-WINter DUBAI meeting floor (in person)

from the world online on v-CONNECT



v-CONNECT



Domain 10

LYMPH & LIPEDEMA

Discussion Trigger
J. WEINGARTNER
BRAZIL

Involved experts:

Amore M (LATAM), Giancesini S (EUR), Gloviczki M (N AM), Mendoza E (EUR), Rockson S (N AM), Szuba A (EUR), Yamaki T (ASIA)

COI

NONE

Lymphedema pathophysiology

Layman's terms

Lymphatic vessels mobilize around 3 litres of body fluid per day. Their function alteration can lead to **swelling** and fluid pooling in the leg (lymphedema).

Lymphedema is a recognized illness.

Issue 1

Lymphatic and vein pathophysiology interconnection

Farrow W. Phlebolympheema-a common underdiagnosed and undertreated problem in the wound care clinic. *J Am Col Certif Wound Spec.* 2010;2(1):14-23.
Published 2010 Apr 22. doi:10.1016/j.jcws.2010.04.004



HOT TOPIC

Lymphedema ethiology & classification

Layman's terms

Lymphedema can be associated to genetic causes and/or follow cancer, radiation therapy, chronic venous insufficiency, trauma, infection, immobility, or underlying systemic diseases

Grada AA, Phillips TJ. Lymphedema: Pathophysiology and clinical manifestations. J Am Acad Dermatol. 2017 Dec;77(6):1009-1020.

Issue 2

Lymphedema risk management

Rockson SG. Addressing the unmet needs in lymphedema risk management.
Lymphat Res Biol. 2006 Spring;4(1):42-



Issue 3

Lymphedema signs, symptoms and diagnostic work-up

Layman's terms

Lymphedema can manifest as swelling, redness, skin infections, abnormal tissue proliferation.

Detailed history, diagnostic laboratory tests, X-ray, electrocardiography, ultrasonography, lymphoscintigraphy, magnetic resonance, limb volumetry and biimpedance are all potentially useful in the diagnosis

Issue 3

Lymphedema early detection

Herrada AA, Mejías C, Lazo-Amador R, Olate-Briones A, Lara D, Escobedo N.
Development of New Serum Biomarkers for Early Lymphedema Detection.
Lymphat Res Biol. 2020 Apr;18(2):136-145.



HOT TOPIC

Lymphedema treatment protocol.

Layman's terms

Lymphedema management begins with a **conservative** multi-specialty expert approach and includes validated protocols of **patients education, skin hygiene, compression, mechanical lymphatic drainage, specific physical exercises.**

Mesotherapy is not a validated option.

No drug has been currently validated to increase lymphatic drainage, including diuretics.

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.

Issue 4

CDP standardization need



HOT TOPIC

Jeffs E, Ream E, Taylor C, Bick D. Clinical effectiveness of decongestive treatments on excess arm volume and patient-centered outcomes in women with early breast cancer-related arm lymphedema: a systematic review. *JBIS Database System Rev Implement Rep*. 2018;16(2):453-506. doi:10.11124/JBISRIR-2016-003185

Issue 5

Lymphedema surgical indications and technical options

Layman's terms

Lymphedema surgical treatment must be performed **only in highly experienced** centers and **once the conservative approach** have demonstrated to be **insufficient**.

Issue 5

Lower limb RCT on different surgical options

Gasteratos K, Morsi-Yeroyannis A, Vlachopoulos NC, Spyropoulou GA, Del Corral G, Chaiyasate K. Microsurgical techniques in the treatment of breast cancer-related lymphedema: a systematic review of efficacy and patient outcomes. *Breast Cancer*. 2021 Sep;28(5):1002-1015

Ciudad P, Sabbagh MD, Agko M, et al. Surgical Management of Lower Extremity Lymphedema: A Comprehensive Review. *Indian J Plast Surg*. 2019;52(1):81-92. doi:10.1055/s-0039-1688537



HOT TOPIC

Lymphedema prevention

Layman's terms

Prevention of lymphedema is crucial and possible by appropriate skin **hygiene**, healthy **lifestyle**, **compression** tools use and adequate **follow-up** visits, always supervised by expert health-professionals.

McLaughlin SA, Stout NL, Schaverien MV. Avoiding the Swell: Advances in Lymphedema Prevention, Detection, and Management. Am Soc Clin Oncol Educ Book. 2020 Mar;40:1-10

National Lymphedema Network. Lymphedema Risk reduction practices updated. Available from: <http://www.lymphnet.org/assets/docs/position>

Lower limb validated physical activity for lymphedema prevention



HOT TOPIC

Schmitz KH. Balancing lymphedema risk: exercise versus deconditioning for breast cancer survivors. *Exerc Sport Sci Rev.* 2010 Jan;38(1):17-24. .

Issue 7

Lymphedema differential diagnosis.

Layman's terms

In the diagnosis of lymphedema always exclude **malformations, tumors, lipedema, lipofibromatosis, post-traumatic swelling, systemic and venous disease.**

Maclellan RA. **Management of primary and secondary lymphedema: analysis of 225 referrals to a center.** Ann Plast Surg 2015;75(02): 197–200

Issue 7

Challenges in lymphedema diagnosis and staging

Greene AK, Goss JA. Diagnosis and Staging of Lymphedema. *Semin Plast Surg.* 2018;32(1):12-16. doi:10.1055/s-0038-1635117

Douglass J, Kelly-Hope L. Comparison of Staging Systems to Assess Lymphedema Caused by Cancer Therapies, Lymphatic Filariasis, and Podoconiosis. *Lymphat Res Biol.* 2019;17(5):550-556. doi:10.1089/lrb.2018.0063



HOT TOPIC

Issue 8

Lipedema signs, symptoms and diagnostic work-up.

Layman's terms

Leg swelling leg can look like lymphedema but being caused by fat tissue alteration (**lipedema**).

1/9 of the women can present this condition.

Differently from lymphedema, usually the **foot is not swollen**.

Buck D. Lipedema: A Relatively Common Disease with Extremely Common Misconceptions. Plast Reconstr Surg Glob Open. 2016 Sep; 4(9): e1043.

Aksoy H, Karadag AS, Wollina U. Cause and management of lipedema-associated pain. Dermatol Ther. 2021 Jan;34(1):e14364

Issue 8

US lipedema characteristics

Amato ACM, Saucedo DZ, Santos KDS, Benitti DA. Ultrasound criteria for lipedema diagnosis. Phlebology. 2021 Sep;36(8):651-658.



HOT TOPIC

Issue 9

Lipedema therapy

Layman's terms

Lipedema conservative management is similar to **lymphedema** one and require highly specialized health-professionals. Specifically dedicated **liposuction** techniques can be taken into consideration **if conservative measurement alone failed** and must be performed by expert professionals.

Kruppa P, Georgiou I, Biermann N, Prantl L, Klein-Weigel P, Ghods M. Lipedema-Pathogenesis, Diagnosis, and Treatment Options. *Dtsch Arztebl Int.* 2020;117(22-23):396-403

Peprah K, MacDougall D. Liposuction for the Treatment of Lipedema: A Review of Clinical Effectiveness and Guidelines [Internet]. Ottawa (ON): Canadian Agency for Drugs and Technologies in Health; 2019

Issue 9

Graduated compression in lipedema

Flour M, Clark M, Partsch H, et al. Dogmas and controversies in compression therapy: report of an International Compression Club (ICC) meeting, Brussels, May 2011. *Int Wound J.* 2013;10(5):516-526. doi:10.1111/j.1742-481X.2012.01009.x



HOT TOPIC

Issue 10

Lymphedema-lipedema follow-up protocol.

Layman's terms

Lymphedema-lipedema most often become **chronic**: it generally requires lifelong care and proper support by expert health-professionals.

Borman P. Lymphedema diagnosis, treatment, and follow-up from the view point of physical medicine and rehabilitation specialists. *Turk J Phys Med Rehabil.* 2018;64(3):179-197. Published 2018 Sep 3. doi:10.5606/tftrd.2018.3539

Ghods M, Georgiou I, Schmidt J, Kruppa P. Disease progression and comorbidities in lipedema patients: A 10-year retrospective analysis. *Dermatol Ther.* 2020 Nov;33(6):e14534

Issue 10

Cost-effective protocols for lymphedema & lipedema management

Humphreys I, Thomas MJ. Evaluation of the economic impact of a national lymphoedema service in Wales. Br J Nurs. 2017 Nov 9;26(20):1093-1100

Herbst KL. Standard of care for lipedema in the United States. Phlebology. 2021 Dec;36(10):779-796



HOT TOPIC

OPEN CONTRIBUTIONS & DISCUSSION

from the v-WINter DUBAI meeting floor (in person)

from the world online on v-CONNECT



v-CONNECT



Domain 11

SCLEROTHERAPY + AESTHETICS

Discussion Trigger
D. Borsuk
RUSSIA

Involved experts:

Gianesini S (EUR), Josnin M (EUR), Miyake K (S AM), Pannier F (EUR),
aymond-Martimbeau P (N AM), Sermsathanasawadi N (ASIA)

COI

NONE

Issue 1

Sclerotherapy SAFETY

Layman's terms

Sclerotherapy is a **safe effective** therapy for leg veins affected by CVD, provided it is performed by experts professionals using validated drugs, methods and material

Davies HO, Watkins M, Oliver R, Berhane S, Bradbury AW. Adverse neurological events after sodium tetradecyl sulfate foam sclerotherapy - A prospective, observational study of 8056 treatments. Phlebology. 2021

Issue 1

Sclerotherapy

in (asymptomatic) COVID time



Douillet D, Riou J, Penaloza A, et al. Risk of symptomatic venous thromboembolism in mild and moderate COVID-19: A comparison of two prospective European cohorts. *Thromb Res.* 2021;208:4-10. doi:10.1016/j.thromres.2021.10.001

Issue 2

Foam sclerotherapy production validated method

Layman's terms

The only validated drugs for foam sclerotherapy are **sodium-tetradecyl-sulfate** and **polidocanol**.

Foam produced by **expert hands**, using **proper syringes** and **method** is standardized, reproducible, safe and effective.

. Watkins MR. **Physiochemical properties and reproducibility of air-based sodium tetradecyl sulphate foam using the Tessari method.** Phlebology. 2017 Jul;32(6):390-396.

Issue 2

compounded

VS

device generated foam



HOT TOPIC

Issue 3

Sclerotherapy indications & contraindications in CVD

Layman's terms

Sclerotherapy is indicated in **all stages of CVD**.

It is **absolutely contraindicated** in case of known allergy to the sclerosant drug, acute deep venous thrombosis and pulmonary embolism, local infection in the injection area or systemic infection, long-lasting immobility, known symptomatic right to left shunt in case of foam formulation.

Issue 3

FOAM relative contraindications



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.

Issue 4

Sclectotherapy induced hyperpigmentation management

Layman's terms

Up to 30% of cases can present post-injection hyperpigmentation.

The phenomenon is usually transient.

Issue 4

persistent hyperpigmentation management



HOT TOPIC

Issue 5

Sclerotherapy periprocedural management

Layman's terms

Proper post-injection **graduated compression** stockings can **improve the aesthetic** result and **symptoms** control

Rabe E. Indications for medical compression stockings in venous and lymphatic disorders: An evidence-based consensus statement. *Phlebology*. 2018;33(3):163-184. doi:10.1177/0268355516689631

Issue 5

topicals
VAD

lifestyle



HOT TOPIC

Issue 6

Sclerotherapy vs Laser for C1 and

Layman's terms

Sclerotherapy is the **first-line treatment** for leg anti-aesthetic veins.

Specific **lasers** use can be taken into consideration for vessel smaller than 1 mm.

Issue 6

<1 mm best indication



HOT TOPIC

Issue 7

C1 laser treatment complications management

Layman's terms

Laser treatment must be performed by highly expert physicians in order to limiting possible complications such as **skin burns** and **pigmentations**

Issue **7**

laser induced pigmentation management



HOT TOPIC

Issue 8

Carboxytherapy / ozone therapy evidence in venous-lymphatic disease management

Layman's terms

Up to the knowledge of this experts consensus carboxytherapy and ozone therapy have **not demonstrated to improve** leg veins aesthetic complaints.

NO references were found

Issue 8

Carboxytherapy / ozone therapy evidence in venous-lymphatic disease management



Issue 9

Radiofrequency evidence in C1

Layman's terms

Preliminary evidence suggest thermal coagulation of the vein could be an option in aesthetic vein treatment

Nakano LCU, Cacione DG, Baptista-Silva JCC, Flumignan RLG. Treatment for telangiectasias and reticular veins. *Cochrane Database Syst Rev.* 2017;2017(7):CD012723. Published 2017 Jul 10. doi:10.1002/14651858.CD012723.

Issue 9

Radiofrequency validation in C1



HOT TOPIC

Issue 10

False claims in aesthetic phlebology

Layman's terms

No aesthetic vein treatment can be considered definitive since venous dilation can present **recurrence**

Nakano LCU, Cacione DG, Baptista-Silva JCC, Flumignan RLG. Treatment for telangiectasias and reticular veins. *Cochrane Database Syst Rev.* 2017;2017(7):CD012723. Published 2017 Jul 10. doi:10.1002/14651858.CD012723.

Issue 10

Acceptable C1 recurrence



HOT TOPIC

OPEN CONTRIBUTIONS & DISCUSSION

from the floor in person

from the world on v-CONNECT



v-CONNECT



Domain 12

LIFESTYLE, NUTRITION, EXERCISE

Discussion Trigger
E. MENEGATTI
ITALY

Involved experts:

Gianesini S (EUR), Goranova E (EUR), Grillo L (S AM), Luis L (N AM), Maghetti A (EUR), Santiago R (S AM), Vitale M (EUR)

COI

NONE

Obesity, postural defects, exercise impact on venous-lymphatic disease

Layman's terms

Obesity, postural defects, physical inactivity are risk factors
for leg chronic venous disease.

*Uhl JF. Static foot disorders: a major risk factor for chronic venous disease?
Phlebology. 2012 Feb;27(1):13-8.*

2. Vlainac HD, Radak DJ, Marinkovic JM, Maksimovic MZ. Risk factors for chronic venous
disease. Phlebology. 2012 Dec;27(8):416-22.

Issue 1

Standardized detection protocols for risk factors identification

Orhurhu V, Chu R, Xie K, et al. Management of Lower Extremity Pain from Chronic Venous Insufficiency: A Comprehensive Review. *Cardiol Ther.* 2021;10(1):111-140.
doi:10.1007/s40119-021-00213-x

Ortega MA, Fraile-Martínez O, García-Montero C, Álvarez-Mon MA, Chaowen C, Ruiz-Grande F, Pekarek L, Monserrat J, Asúnsolo A, García-Honduvilla N, Álvarez-Mon M, Bujan J. Understanding Chronic Venous Disease: A Critical Overview of Its Pathophysiology and Medical Management. *J Clin Med.* 2021 Jul 22;10(15):3239



Oral hormone replacement therapy impact on venous-lymphatic disease.

Layman's terms

Oral hormone **replacement** therapy can increase the risk of **venous thromboembollism**. Hormonal oral **contraception** can significantly increase the thromboembolic risk.

Tepper NK, Dragoman MV, Gaffield ME, Curtis KM. Nonoral combined hormonal contraceptives and thromboembolism: a systematic review. *Contraception*. 2017 Feb;95(2):130-139

Gialeraki A, Valsami S, Pittaras T, Panayiotakopoulos G, Politou M. Oral Contraceptives and HRT Risk of Thrombosis. *Clin Appl Thromb Hemost*. 2018 Mar;24(2):217-225.

Issue 2

Transdermal patch, injectables and vaginal ring thrombo-embolic risk

Thrombotic risk of contraceptive transdermal patches and the contraceptive vaginal ring. *Prescrire Int.* 2013 Nov;22(143):266, 268-9.

Lidegaard /span>, Nielsen L H, Skovlund C W, Lækkegaard E. Venous thrombosis in users of non-oral hormonal contraception: follow-up study, Denmark 2001-10 *BMJ* 2012; 344 :e2990



HOT TOPIC

Supplements for venous-lymphatic disease patients.

Layman's terms

Up to the knowledge of this experts panel, **no food, drink or supplement** has strongly scientifically demonstrated to improve venous-lymphatic circulation.

Raposo A, Saraiva A, Ramos F, Carrascosa C, Raheem D, Bárbara R, Silva H. The Role of Food Supplementation in Microcirculation-A Comprehensive Review. Biology (Basel). 2021 Jul 2;10(7):616.

Michelini S, Cestari M, Michelini S, Camilleri G, De Antoni L, Sonna WN, Bertelli M. Study of a supplement and a genetic test for lymphedema management. Acta Biomed. 2020 Nov 9;91(13-S):e2020013

Olas B. Dietary Supplements with Antiplatelet Activity: A Solution for Everyone? Adv Nutr. 2018 Jan 1;9(1):51-57.

Issue 3

Supplements False claims

<https://diatribe.org/dietary-supplement-companies-are-making-false-claims-fda-and-ftc-warns>



HOT TOPIC

Diet regimens for venous-lymphatic disease patients

Layman's terms

Up to the knowledge of this experts panel, **no specific diet** has been scientifically validated for venous-lymphatic improvement.

A diet aimed to avoid **obesity, oxydative stress** and excessive venous-lymphatic **dilation** should be preferred and customized on the specific subject case.

Blum KS, Karaman S, Proulx ST, Ochsenbein AM, Luciani P, Leroux JC, Wolfrum C, Detmar M. Chronic high-fat diet impairs collecting lymphatic vessel function in mice. PLoS One. 2014 Apr 8;9(4):e94713.

Morelli VM, Lijfering WM, Bos MHA, Rosendaal FR, Cannegieter SC. Lipid levels and risk of venous thrombosis: results from the MEGA-study. Eur J Epidemiol. 2017 Aug;32(8):669-681.

Melo PG, Mota JF, Nunes CAB, Amaral KVA, Coelho ASG, Bachion MM. Anthropometric, Biochemical, and Food Consumption Parameters are Associated with Venous Leg Ulcer Area and Duration. Adv Skin Wound Care. 2020 Sep;33(9):476-481.

Cannataro R, Michelini S, Ricolfi L, Caroleo MC, Gallelli L, De Sarro G, Onorato A, Cione E. Management of Lipedema with Ketogenic Diet: 22-Month Follow-Up. Life (Basel). 2021

Issue **4**

validated diet for venous-lymphatic disease



HOT TOPIC

Haughey L, Barbul A. Nutrition and Lower Extremity Ulcers: Causality and/or Treatment. Int J Low Extrem Wounds. 2017 Dec;16(4):238-243.

Issue 5

Validated exercise protocols for venous-lymphatic disease patients.

Layman's terms

Physical activity requiring **progressive, gentle activation of leg calf muscle** can facilitate venous drainage.

Physical activity requiring **sudden activation** of the calf muscle, possible leg **constriction** or **trauma** can harm venous drainage.

Issue 5

vein-lymphatic benefit & harm in different sport activities

Silva KLS, Figueiredo EAB, Lopes CP, Vianna MVA, Lima VP, Figueiredo PHS, Costa HS. The impact of exercise training on calf pump function, muscle strength, ankle range of motion, and health-related quality of life in patients with chronic venous insufficiency at different stages of severity: a systematic review. J Vasc Bras. 2021 Apr 28;20:e20200125.

Morris RI, Sobotka PA, Balmforth PK, Stöhr EJ, McDonnell BJ, Spencer D, O'Sullivan GJ, Black SA. Iliocaval Venous Obstruction, Cardiac Preload Reserve and Exercise Limitation. J Cardiovasc Transl Res. 2020 Aug;13(4):531-539.



HOT TOPIC

Graduated compression in occupational and sport settings.

Layman's terms

Certified properly prescribed graduated compression can improve perceived exertion after walking and comfort after prolonged sitting.

Indication by a health-professional is recommended.

Horiuchi M. Impact of Wearing Graduated Compression Stockings on Psychological and Physiological Responses during Prolonged Sitting. *Int J Environ Res Public Health*. 2018;15(8):1710. Published 2018 Aug 10. doi:10.3390/ijerph15081710

Gianesini S. Volume control of the lower limb with graduated compression during different muscle pump activation conditions and the relation to limb circumference variation. *J Vasc Surg Venous Lymphat Disord*. 2020 Sep;8(5):814-820.

GCS in sport & occupational performance

Mota GR, Simim MAM, Dos Santos IA, Sasaki JE, Marocolo M. Effects of Wearing Compression Stockings on Exercise Performance and Associated Indicators: A Systematic Review. Open Access J Sports Med. 2020 Jan 22;11:29-42

Amsler F, Blättler W. Compression therapy for occupational leg symptoms and chronic venous disorders - a meta-analysis of randomised controlled trials. Eur J Vasc Endovasc Surg. 2008 Mar;35(3):366-72



HOT TOPIC

Graduated compression during prolonged travels.

Layman's terms

Certified properly prescribed graduated compression stockings can reduce leg swelling after 4 hours flight. Patients at risk of venous-thrombembolism should wear certified compression stockings prescribed by an expert health-professional

Gianesini S. Case-control evaluation of the impact of below 20 mmHg elastic compression stockings on lower limb volume serial variations in standardized flights. Phlebology. 2020 Apr;35(3):199-206.

da Silva LF. Graduated compression stockings as a prophylactic measure in venous thromboembolism and edema of lower limbs triggered by air travel: a systematic review of clinical trials. J Vasc Bras. 2021

Issue 7

Travel thrombotic risk, especially in CVD & covid time

Chamnanchanunt S, Rojnuckarin P. Direct Oral Anticoagulants and Travel-related Venous Thromboembolism. Open Med (Wars). 2018 Nov 27;13:575-582



HOT TOPIC

Issue 8

Neuromuscular electrical stimulation evidence in venous-lymphatic disease management

Layman's terms

Neuromuscular electrical stimulation has shown **preliminary evidence** of potential benefit in leg venous drainage. **More data are needed** to validate its use, for which an indication of the expert physician is suggested.

Williams KJ, Ravikumar R, Gaweesh AS, Moore HM, Lifszitz AD, Lane TR, Med Shalhoub J, Babber A, Davies AH. A Review of the Evidence to Support Neuromuscular Electrical Stimulation in the Prevention and Management of Venous Disease. Adv Exp Med Biol. 2017;906:377-386.

Issue 8

proper RCT on NES utility & cost-effectiveness

Ravikumar R, Lane TR, Babber A, Onida S, Davies AH. A randomised controlled trial of neuromuscular stimulation in non-operative venous disease improves clinical and symptomatic status. *Phlebology*. 2021 May;36(4):290-302.



HOT TOPIC

Issue 9

Aquatic activity evidence in venous-lymphatic disease management

Layman's terms

Specifically standardized aquatic exercises demonstrated to be **beneficial** for leg venous-lymphatic drainage.

SPA/aquatic aspecific walks are still needing **proper scientific validation**

de Moraes Silva MA, Nakano LCU, Cisneros LL, Miranda Jr F. Balneotherapy for chronic venous insufficiency. *Cochrane Database Syst Rev.* 2018;2018(7):CD013085. Published 2018 Jul 28. doi:10.1002/14651858.CD013085

Issue 9

Vein-lympahtic standardized aquatic protocols validation

Gianesini S. A specifically designed aquatic exercise protocol to reduce chronic lower limb edema. Phlebology. 2017 Oct;32(9):594-6001



HOT TOPIC

Issue 10

False claims on lifestyle for potential venous-lymphatic benefit.

Layman's terms

Medical information is heavily subjected to **potential fake news**: relying always on validated **scientific papers** and **experts** health professionals is crucial.

Wang Y. **Systematic Literature Review on the Spread of Health-related Misinformation on Social Media**. Soc Sci Med. 2019 Nov;240:112552.

Issue 10

Scientific societies and institutions role in health misinformation counteraction

Cacciatore MA. Misinformation and public opinion of science and health:
Approaches, findings, and future directions. Proc Natl Acad Sci U S A. 2021 Apr
13;118(15):e1912437117.



HOT TOPIC

OPEN CONTRIBUTIONS & DISCUSSION

from the v-WINter DUBAI meeting floor (in person)

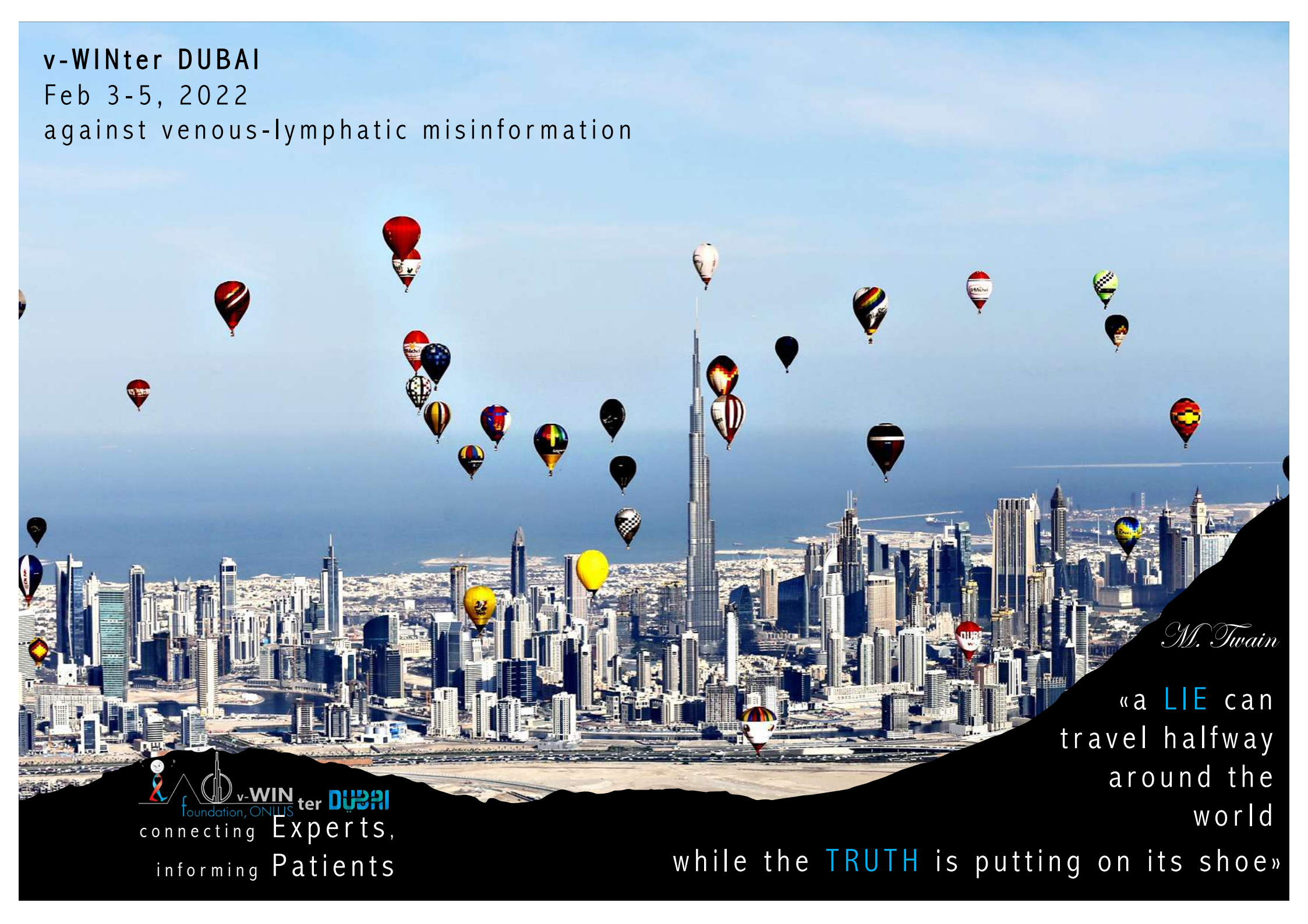
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v-WINter DUBAI
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foundation, ONIUS
connecting Experts,
informing Patients

M. Twain

«a LIE can
travel halfway
around the
world

while the TRUTH is putting on its shoe»