KNOWLEDGE TRANSMISSION IN PHLEBOLOGY EDITORIAL

Learning and teaching Phlebology today

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Introduction

Phlebology, as a medical specialty, was effectively established with the founding of the French Phlebology Society in 1947, followed by the publication of the Society Proceedings in 1948. In the inaugural issue, a report titled "*On Some Innovations - or Supposed Innovations - in Phlebology (1947-1948)" by Raimond Tournay* (he coined the term "Phlebology"), was featured. This marked the beginning of "official" Phlebology[1].

In 1981, van der Molen[2] (highlighted the rapid global expansion of this specialty, noting that several societies or specific sections were created everywhere over the years The Italian Phlebological Association was founded in 1953, followed by the German Association in 1957, and the Benelux Association in the same year. This growth led to the establishing of the UIP (Union Internationale de Phlebologie) in 1959, progressively including all the major Phlebology societies founded worldwide. Today, the UIP comprises 74 member societies.

This apparently important intellectual activity is expected to provide physicians involved in Phlebology with ample opportunities to stay current on research and treatment; however, it appears that this is insufficient.

Indeed, Phlebology is a unique area of medical practice. While it is a low-impact scientific specialty (as veins are often considered less interesting research subjects compared to arteries), it is a high-impact clinical field, given the prevalence of conditions such as varices, ulcers, lymphedema, and telangiectasiae. Additionally, phlebology generates significant private interest due to its predominantly office-based activities, and it attracts considerable attention from companies offering various devices. Notably, any graduate physician can engage in this specialty, as it is not restricted to a specific medical discipline[3].

Since the early 21st century, technology made significant inroads into phlebology, delivering continuous advancements, particularly in eliminating varicose veins through increasingly less invasive procedures, such as chemical, thermal, and mechanical approaches. With innovations like High-Intensity Focused Ultrasound (HIFU), treating conditions without even penetrating the skin has become possible.

Interestingly, despite these technological advancements, there was no substantial progress in phlebology treatment strategies over the past several decades, aside from the advent of Color-Doppler imaging and the introduction of office phlebectomy and foam sclerotherapy in the early 2000s.

Traditional surgical saphenectomy remains a common procedure to this day. Great Saphenous Vein ablation continues to be a primary focus; varicosities still require avulsion or closure, telangiectasiae need superficial sclerotherapy, lymphedema lacks definitive solutions, and venous stasis ulcers still depend on high compression therapy. Conservative strategies remain an exception.

In light of this context, I would like to explore how phlebology should be learned and how it should be taught concurrently.

Learning Phlebology

The ideal phlebologist should possess various skills in different fields such as surgery, dermatology, ultrasound imaging, vascular medicine, lymphology, and internal medicine, specifically in venous and lymphatic pathology. As a result, general and vascular surgeons have an advantage if they aim to achieve Phlebological

Competence. However, no specific specializations are required for treating venous or lymphatic conditions, so any medical graduate can practice phlebology.

Historically, during the second half of the 20th century surgeons typically performed ablations of the great saphenous vein (GSV) in a hospital setting leaving the remaining lesions to be treated in an outpatient clinic. At the same time, many non-surgeons preferred to achieve venous occlusions through office-based sclerotherapy, which created a conflicting dynamic. This issue found resolution in the early 21st century with the widespread adoption of endovascular echo-guided methods (such as laser, radiofrequency, cryotherapy, foam, and HIFU) and mechanical closure techniques (including glue and MOCA). These approaches, a kind of "surgical sclerotherapy", involve catheter insertion guided by ultrasound and were well-received by both surgeons and non-surgeons.

Although beginners often emphasize technical applications, foundational elements such as Ultrasound diagnostics, consequent hemodynamic aspects, clinical stages, and compression solutions should come first, as basic knowledge.

Gaining experience in ultrasound (US) and compression techniques requires direct, hands-on training with expert practitioners over an extended period, ideally at least one/two months, during daily operations. This practical exposure helps develop hemodynamic competence, which can be further improved by studying relevant publications. In contrast, theoretical video courses provide theoretical benefits but minimal benefits in these areas.

The technical aspects of these procedures can be grasped easily once a basic level of knowledge is established, especially for those with general vascular experience. For example, surgeons typically understand a procedure simply by observing it. Non-surgeons do not require specialized skills for intravenous procedures. Both groups can gain insights into general principles, different methods, and useful tips by attending numerous congresses, reading published literature-most of which is available for download online-and watching videos on platforms like YouTube. While courses may provide some assistance, they are not the definitive solution.

Acquiring expertise in Phlebology, like in any other field of knowledge, demands active mental engagement from the learner. Knowledge cannot be absorbed passively; it requires personal reflection and effort. This approach facilitates tailored applications for individual patients and fosters personal methodological development. Over time, clinical experience will build a solid foundation of knowledge and skills.

Teaching Phlebology

While Phlebology has a generally accepted scientific framework based on a peculiar multitasking activity (involving surgery, dermatology, angiology, radiology, lymphology, and hematology), this same variety creates a problem of membership identification of the Specialty. Consequently, no Academic reference exists, and Specialist training is unavailable[3].

Many Phlebology (or other specialization) Societies organize Courses, usually limited both in time and content (and for a fee), that add limited theoretic notions to basic Medical School teachings. Rarely are hands-on courses offered on limited subjects such as bandaging, telangiectasiae, and ultrasound.

Varicose vein treatments are the most frequent subject of interest for "Phlebologists". Sclerotherapy and/ or surgical treatments are the most frequent topics covered, usually by involved Companies assistance.

Vascular Surgery Specialization schools are presumably the nearest Academic entities responsible for teaching venous pathologies. By definition, they should provide theoretical and practical education for diagnosing and treating the vascular system, including the arterial, venous, and lymphatic circulations.

A recent article by Bissacco and al.[4] concerns the level of practical and theoretical education in venous diseases offered by Italian Schools of Vascular Surgery. A survey of 20 questions about the university teaching program and operative experience in phlebology was received from 54 residents of 18 Vascular Surgery Specialization Schools across Italy. In 27.8% of cases (15 out of 54), phlebology is not included in the curriculum of the affiliated University Department, while Phlebology teaching primarily consists of lectures, seminars, and attendance at workshops or congresses. In 15% of centers (8 cases), no phlebology surgery is performed; over 40% of participants (22 out of 54) are not able to use diagnostic Ultrasound; over 40% (22 out of 54) do not treat venous ulcers. Authors report similar data from US and UK experiences, underlying the lack of unanimous agreement on which training programs or certifications are necessary to treat venous pathologies between countries and even among Schools within the same country. Particularly in Italy, the existance of several Phlebology Societies, generally in competition with each other, makes unlikely the desirable uniformity of guidelines and therapeutic indications.

An interesting initiative was recently developed by the Italian Society of Surgery in union with the Italian Society of Vascular and Endovascular Surgery: the creation of the **School of Phlebological Surgery**[5] confirming the

insufficiency of the teaching levels on basic vascular Specialization Schools. Unfortunately, next to a theoretical supply, practical teaching is based on very limited active participation in chosen non-certified Centres.

While Academic teaching is insufficient to form Phlebologists, different international organizations attempted to create a Phlebology certification through virtual teachings, possible direct experiences, and questionable exams:

The American Board of Venous & Lymphatic Medicine (ABVLM) Certification (www.abvlm.org/), is open to licensed physicians who meet the rigorous prerequisite qualifications in venous and lymphatic medicine training or experience for becoming a diplomate of the American Board of Venous & Lymphatic Medicine, receiving a certification certificate, and having the option of being listed in the ABVLM "Find a Certified Physician" database.

The UEMS (Union of European Association of Medical Specialists) while not recognizing to Phlebology the requirements for a primary Speciality, accredited "National Reference Training Centres of Phlebology"-NRTCP), 35 in Europe, 13 in Italy (www.uems.eu/). All the European diplomas or certifications are based on this organization's indications.

The **UIP International Union of Phlebology** - EDUCATION MODULES (https://www.uip-phlebology.org/online-education) develops and awards a Certificate of Knowledge based on the UIP curriculum and online modules based on previous training, experience, and the number and kind of performed phlebological interventions with the need of continuous education based on the conference and courses participation, phlebology journals subscriptions and conference reports presentation or paper publication (certificate is valid for 2 years).

The European College of Phlebology - ECoP - (https://europeancollegeofphlebology.com/product/ecop-online-course) offers a distinguished Phlebology diploma to individuals who have demonstrated proficiency by completing the rigorous ECoP Online Course.

The SFP (Societé Francaise de Phlebologie), as NRTCP has set up three development modules called "CDPP" (Competency Degree in Phlebology Procedures): Foam Echosclerotherapy, Thermal endovenous treatment, Phlebectomy (https://www.sf-phlebologie.org/Maquette-formations-SFP-Francais-2025.pdf).

In Italy, the **Italian College of Phlebology (CIF)**, follows the same UEMS indications and introduced the achievement of Certificate in Phlebology (www.collegioitalianoflebologia.it/competency-in-phlebology-content/).

The Italian Society of Phlebology (SIF) creating an The Italian School of Phlebology issues the European Diploma of Competency Degree level 1 (CDP) and/or the European Diplomas of Competency Degree in Phlebological Procedures (CDPP) for UGS (Ultrasound-guided Sclerotherapy) and Superficial Venous Surgery (www.societaitalianaflebologia.com/strutture-sif-accreditate-uems/).

Interestingly, even a local **Tuscan Health Unit** (Azienda Usl Toscana sud est) set up an European Training Course In Phlebology For General Practitioners (https://www.uslsudest.toscana.it/notizie/percorso-di-formazione-europea-in-flebologia-etcp-2

The Hesperia Hospital in Modena as a National Reference Training Center in Phlebology organized its European Training Course in Phlebology. Same for the **Koelliker Hospital** in Turin (https://www.osp-koelliker.it/news/notizie/il-koelliker-e-centro-europeo-per-la-formazione-in-flebologia).

The **University Federico II Napoli** offers the Postgraduate course in Phlebology: clinical and therapy (www.unina.it/-/52326504-pe_mcc_flebologia_23-24)

All these and more organizations (the list is not exhaustive), following (non-strictly) the UEMS indications have similar programs, usually developed over 12 months, with theoretical (direct/virtual) and practical experiences. A Final formal exam is generally produced to confirm the "Creation of an expert phlebologist". Costs run from 1000 to 1500 (or more) euros.

The absence of official recognition for Phlebology as a specialized field in Europe diminishes the value of associated certifications. It is often emphasized that these certifications lack legal standing. Furthermore, training centers and educators are not always chosen based on the strict criteria established by the UEMS.

Interestingly, a recent Academy of Phlebology has been established by L. Tessari (www.tessaristudi.it/en/phlebolymphology-academy/academy/), where the theory and practice of various aspects of Phlebology are taught through separate, guided clinical experiences. This approach represents a revitalization of older methods of proto-phlebology, shifting from a model of friendly scientific exchange to one focused on business. Similarly, C Baraldi offers a "360° Advanced Phlebology Residential Course" (www.amelvisrl.org/flebocorsoitalia).

Conclusion

Theory alone is insufficient for mastering Phlebology; the most effective approach to learning and teaching this field is through hands-on experience in

Phlebology Centers, assuming such centers still exist. Nowadays, with technological advancements in areas like ultrasound, foam sclerotherapy, various endovascular closure techniques, and conservative methods as well as developments in lymphology and ulcer treatments the discipline has fragmented into sub-specialties that demand their own special training, deleting the "ancient" meaning of all-in Phlebology. The traditional generation of phlebologists from the last century, known for their camaraderie, is nearly exhausted, leading to a decline in available referral sites. Meanwhile, courses covering specific subjects are continuously offered, suggesting a lucrative business opportunity. It represents a modern evolution of this discipline, offering advantages such as focused super specialization, but also not without drawbacks like the loss of global vision and interchange.

Given the large number of phlebological schools and programs, especially in Italy, it is surprising that so many physicians aspire to become phlebologists. Even more remarkable is the abundance of phlebology instructors and the numerous centers that offer practical experience and skill development. To the joke that says that we are "poets, navigators, fashion creators, …" we can add also "phlebologists".

Beyond Jokes, in conclusion, while Phlebology remains a relevant field, true phlebologists (according to the traditional meaning) are destined for extinction.

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