EJVES Vascular Forum (2024) 62, 5–6

EDITORIAL

Collaborative Vascular Research in Europe to Improve Care for Patients With Vascular Diseases: What Is Out There, and How to Participate?

Evidence based practice is the cornerstone for quality improvement in contemporary healthcare. In the field of vascular surgery, national, and regional registries or claim databases have been developed in many European and Western countries, and great efforts have been made over past decades to build international cross border collaborations to analyse patient outcomes and generate high quality recommendations for clinical practice based on real world data.

Research collaboratives have been set up to facilitate a multicentre approach to research. On one hand these can scale up sample sizes and improve generalisability of results by involving various populations in different healthcare organisations, encompassing diversity in terms of geographic, ethnic, demographic, and socio-economic conditions. On the other hand, it also allows the comparison of practice patterns and clinical outcomes by regions, countries, or healthcare systems. In Europe, vascular research collaboratives are very active, some of them being built decades ago, others more recently created. Herein, an overview of the main existing groups and networks, highlighting their complementary role and opportunities for active participation to improve care provided to patients with vascular diseases.

The first step forward in developing international collaboration in vascular surgery was taken in 1997, with the creation of VASCUNET at the European Society for Vascular Surgery (ESVS) Annual Meeting in Lisbon (Portugal).[1] The network now counts more than 40 members from 26 different countries and leads projects on various vascular diseases including carotid artery stenosis, abdominal aortic aneurysm repair, and peripheral arterial occlusive disease among others.

The more recently created European Vascular Research Collaborative (EVRC) introduced itself as a multidisciplinary research collaborative welcoming health professionals, students and researchers interested in the care of individuals with vascular conditions.[2] The EVRC is calling for trainee led international vascular surgery collaborative studies guided by vascular specialists to ensure high quality methodology. The group is currently leading various projects, including a prospective multicentre observational study on acute lower limb ischaemia and surveys on endovascular aneurysm repair and antithrombotic strategies in non-cardiac arterial procedures.[3]

The ESVS has traditionally been very active in education, dissemination of research and development of guidelines, while active involvement in research has so far been limited. The European Research Hub (ERH) was therefore introduced as a committee of the ESVS aiming to facilitate multicentre research in the ESVS community.[4] After an open call for applications, the ERH currently consists of 10 members. For their projects, the group is liaising with clinical experts of vascular specialties, as well as industry representatives, patients, and other interested parties. Current projects are dealing with the formation of a registry for deep venous interventions, artificial intelligence in endovascular aortic surgery and bioresorbable stents on peripheral vascular disease. Further, the group is reviewing the literature regarding research priorities in vascular surgery, gathering a registry of research centres and their specific interests and conducting a survey regarding barriers to research in vascular surgery. Researchers can approach the group to evaluate proposals and gain endorsement for funding. The ERH will be aiming to facilitate execution of high quality proposals and will be able to provide potential collaborators by reviewing their registry of research centres.

The Vascular and Endovascular Research Network (VERN) is a multidisciplinary Research Collaborative consisting of vascular surgical trainees, interventional radiologists, vascular scientists, vascular nurses, students and researchers. The majority of the group is UK based. VERN has gained high visibility with the COVER Study that looked into the global impact of the first COVID-19 wave on vascular services.[5] Apart from that, the group is continuously running projects, with the possibility to take part in studies, and has been consistently publishing its results.[6,7] Current projects deal with surgical site infection in major amputation, green vascular surgery, acute aortic syndrome, vascular trauma in the UK and frailty in chronic limb threatening ischaemia.

The Spanish Society of Vascular Surgery launched a vascular research network named RIV (Red de Investigacion Vascular) with the aim of combining the efforts of different groups, scientifically active in Europe (mainly based in Spain) and Latin America.[8] Within four years, the RIV performed studies, registries, and trials on drug support for peripheral arterial disease (PAD) interventions, application of artificial intelligence in vascular research, and outcomes after vascular surgery procedures in patients with COVID-19 infection.[9]

Finally, the Research Collaborative in Peripheral Artery Disease (RCPAD) is a pan-European clinical scientific

https://doi.org/10.1016/j.ejvsvf.2024.05.009

collaboration between vascular specialists aiming to deliver high quality multicentre scientific collaboration projects to improve care in patients with PAD.[10] The network has been active for one year and so far, 27 hospitals in Europe have been involved in RCPAD projects, with more than 5 000 patients with PAD included.

To summarise, in addition to the long established VASCUNET research network, a number of emerging networks for collaborative vascular research have been established in recent years. The EVRC is an association led mainly by trainees, who are advised by experts in the conduct of studies. VERN currently focusses mainly on collaborations in the UK while the RCPAD Collaborative regroups multiple European partners but focuses on projects relevant to PAD. RIV is mainly active in Spanish speaking countries. The ERH consists of established experts who are most likely to act as a catalyst for collaborative projects, favouring links and partnerships between research stakeholders and collaboratives, and facilitating the production of high quality research.

The individual groups are complementary and some experts are members of several associations. This favours exchange, reinforces the complementary nature of the groups, and should lead to an improvement in the study and evidence base, which will ultimately have a positive impact on the quality of vascular health and patient care.

All of the mentioned groups are inclusive, supportive, and open to approaches by interested researchers and other parties. Contact information and potential ways of interaction, support and participation are retrievable on the respective websites.

In the future, it will be interesting to see how the networks continue to develop. VASCUNET already has partners outside Europe in its ranks. In addition, under the umbrella of the International Consortium of Vascular Registries (ICVR), some analyses have already been conducted together with the US Vascular Quality Initiative (VQI).[11] The success and scientific standard achieved here should be an incentive for the future work of the research networks.

REFERENCES

1 *ESVS vascunet registry*. Available at: https://esvs.org/vascunet/. [Accessed 30 January 2024].
2 Meecham L, European Vascular Research Collaborative. The collaborative big bang and introduction to the European vascular research collaborative. *Eur J Vasc Endovasc Surg* 2022;**64**:153—4.
3 *ACTION survey*. Available at: https://eurovascresearch.com/action-survey-2/. [Accessed 30 January 2024].
4 Kakkos SK, Antoniou GA, Hinchliffe RJ, European Research Hub Working Group. European research Hub: European society for vascular surgery research initiative has materialised. *Eur J Vasc Endovasc Surg* 2024;**6**:367—9.
5 Vascular and Endovascular Research Network (VERN) COVER study collaborative. Global impact of the first coronavirus disease 2019 (COVID-19) pandemic wave on vascular services. *Br J Surg* 2020;**107**:1396—400.
6 *Papers of the vascular and endovascular research network*. Available at: https://vascular-research.net/papers/?orderby=publication_date&order=desc. [Accessed 30 January 2024].
7 *The vascular and endovascular research network (VERN) constitution*. Available at: https://vascular-research.net/wp-content/uploads/2023/09/VERN-constitution.pdf. [Accessed 30 January 2024].
8 de Haro Miralles J. [Cooperative research in the SEACV. The vascular research network (RIV)]. *Angiología* 2019;**7**:144—53 [in Spanish)].
9 *The RIV research*. Available at: https://seacv.es/cientifico/investigacion/. [Accessed 15 March 2024].
10 *Research collaborative in peripheral arterial disease*. Available at: https://www.rcpad.org/. [Accessed 30 January 2024].
11 *International Consortium of vascular registries (ICVR): past and current projects*. Available at: https://www.mdepinet.net/icvr. [Accessed 30 January 2024].

Fabien Lareyre*
Department of Vascular Surgery, Hospital of Antibes Juan-les-Pins, France
Université Côte d'Azur, CNRS, UMR7370, LP2M, Nice, France
Fédération Hospitalo-Universitaire, FHU Plan&Go, Nice, France

Matthias Trenner on behalf of the European Research Hub Working Group†
Department of Vascular Medicine, St. Josefs-Hospital, Wiesbaden and Technical University of Munich, School of Medicine, Munich, Germany

*Corresponding author. Department of Vascular Surgery, Hospital of Antibes Juan-les-Pins, France.
Email-address: Fabien.lareyre@gmail.com (Fabien Lareyre)

† A list of the authors in the European Research Hub Working Group is included in Appendix A.