

Differences of Healthcare and Reimbursement Systems. Is the Reality Really Comparable Between Countries in Vascular Surgery Procedures?

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Received: September 04, 2020, **Accepted:** September 10, 2020, **Published:** September 17, 2020

Editorial

During the last decades, the widespread adoption of endovascular techniques in vascular medicine enabled the treatment of high-risk patients with vascular diseases. In some countries, this development was partially driven by economic factors and peculiarities of the healthcare system [1]. While evidence from high quality and sufficiently powered randomized controlled trials is still lacking in some areas, international registry collaborations may provide complementary real-world data from observational studies to close the gap of knowledge concerning the treatment of patients with vascular diseases [2].

The European Society for Vascular Surgery (ESVS) VASCUNET (www.vascunet.org) is a cross-border collaboration of clinical and administrative registries active in quality improvement and health services research for more than 20 years. More than 40 representatives from 26 national registries in Europe (involving Russia), Australia, New Zealand, and Brazil participate actively in this large real-world evidence network [2]. In 2014, the VASCUNET collaboration and the Society for Vascular Surgery (SVS) Vascular Quality Initiative (VQI), involving registries in the United States and Canada, started a synergistic exchange of ideas in the International Consortium of Vascular Registries (ICVR). The ICVR is coordinated by the Medical Device Epidemiology Network (MDEpiNet, www.mdepinet.org), a public-private partnership with international chapters in the United States, Japan, Canada, Australia, Germany, and United Kingdom. Various reports on patient selection and treatment patterns have been published by these groups, emphasizing the differences between healthcare systems [3-6].

In light of the wide variation between countries, a critical discussion concerning the impact of healthcare and reimbursement systems and how international collaborations aim to address unwarranted variation, seems reasonable. Up to now, there is a paucity of evidence how the reimbursement systems and additional environmental factors affect the treatment-outcome relationship in cardiovascular diseases [6]. Interestingly, there is evidence for an East/West divide in cardiovascular disease pointing towards disadvantages in Eastern European countries [7,8]. To further illuminate these differences, major amputation rates may serve as a super ordained indicator of quality in vascular surgery procedures [8-10].

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Citation: Ocke Reis PE, Behrendt CA (2020) Differences of Healthcare and Reimbursement Systems. Is the Reality Really Comparable Between Countries in Vascular Surgery Procedures? *J Vasc Endovasc Ther.* 5 No. 4: 23.

In Brazil, as in many other countries, we have both, a private and public health system with likely differences between both systems in terms of patient selection and treatment. Arterial diseases are prevalent and generate high demand to the Unified Health System (SUS) that has limited resources to treat those patients [11,12]. The authors showed that for peripheral arterial occlusive disease (PAOD), there are wide variations between systems regarding amputation and mortality rates [11-13]. Other authors established satisfactory public-private partnerships, which led to an improvement of patients suffering from vascular diseases [14]. They concluded that healthcare research is important and that costs and future public-private partnerships in vascular surgery may be a model to follow in Brazil [14].

Is "the reality" drawn by observational and randomized studies really comparable between countries concerning vascular surgery procedures? Or with other words: Is it even possible to generalize study results to the global treatment reality?

It seems challenging to answer this question, and the apparent

variations in patient-selection and treatment warrant for further investigation [15]. Under ideal conditions, patients with vascular diseases should be treated evidence-based and independently

from nationwide health economic considerations. Politicians and regulators may play an important role in providing the necessary environment and infrastructure.

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