

What is the biggest challenge in recruitment and training of young vascular surgeons in Italy?

Unlike in many other countries, Vascular Surgery Specialty is independent of general surgery in Italy.

The residency program lasts five years. To access one of the residency programs, not only in vascular surgery, the candidates must pass a national test. The higher the score obtained, the greater the chances of becoming a resident and choosing the preferred specialty and university. Since 2020 neither a propedeutic training in general medicine is needed prior to the start of residency, allowing direct entry from Medical School.

This system may have a determinant role in the high attrition rate seen nowadays in all the residency programs, but even more within the surgical field and in vascular surgery as well. Approximately 38% of the available positions in 2023 remained unfilled or abandoned due to a lack of interest or early dropout. This without mentioning the late dropout rates.

The biggest challenge in the recruitment and training of young vascular surgeons in Italy lies in few main topics:

1. a fragmented structure of the specialization programs.
2. Research activity without adequate incentives.
3. Legal issues.
4. Economic treatment.

Specialization Programs

The training occurs in tertiary and university centers as well as in peripheral ones. Despite a ministerial decree that outlines minimum standards for training since 2015, the curriculum remains vague, particularly concerning the specific procedures that trainees must master. A minimum number for every surgical procedure to be performed during the five years is not declared. This results in a heterogeneous training experience across different centers nationwide, exacerbating the challenge of providing consistent, high-quality preparation in every field of the wide world of vascular surgery.

In terms of training there is also a significant gap in **hands-on experience**, particularly in **complex open surgeries** such as aortic procedures, trauma surgeries, and advanced peripheral revascularizations. The focus has increasingly shifted toward endovascular techniques, sometimes at the expense of tradition open surgery skills.

Research activity

Research activity is encouraged in every specialty school. However, there are no dedicated work shifts or incentives provided. If a resident decides to enroll in a PhD

during the five years of the residency program, he/she will not receive a PhD scholarship/compensation (which would be, in any case, 1.300 € per month).

Gross negligence and criminal liability

Legal factors further complicate recruitment.

Italian laws allow for the criminal prosecution of healthcare professionals, including potential imprisonment, if gross negligence is demonstrated. Therefore, criminal liability is particularly relevant in Italy for surgeons, given the intrinsic risk of every surgical maneuver.

While residents are still in training, they are expected to perform within their scope of knowledge and under supervision. However, if a resident is found under gross negligence, he/she can be held criminally liable, facing fines, imprisonment or both. These legal issues create a deterrent for many potential candidates.

Economic treatment

The financial compensation during and after training is relatively low, with starting salaries often inadequate considering the significant level of responsibility and dedication required, after a long path of studies.

The scholarship (it is not a salary, indeed) is about 1.600/1.700 € per month during the residency (net of university fees).

Moreover, the salaries of the Italian vascular surgeons are among the lowest in Europe, leading many residents and consultants to consider emigration.

Finally, the **lack of unified and modernized training approach**, coupled with limited opportunities for research and collaboration, makes the field less appealing to young doctors. To address these issues, Italy needs to modernize its vascular surgery specialization, increase economic incentives, and provide a more structured and consistent training pathway, ensuring that young surgeons are adequately prepared and motivated to pursue this challenging yet rewarding career.

Sincerely,

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