of the surgeon with the potential risk of incorporating outdated surgical techniques and importantly, OAC is further recommended after LAA closure. Hence, interpretation of the results in regard to stroke prevention/risk reduction may be challenging under these circumstances.

Despite the heterogeneity of present surgical data, a recent retrospective cohort study with a considerable amount of propensity matched patients revealed concurrent surgical LAA closure to be associated with reduced risk of stroke and all-cause mortality compared to patients without LAA closure.26 The experiences from the percutaneous devices seem to be in line with these findings.18

The definition of the stump length currently defined as safe $<10\,\text{mm}$ in the surgical setting, remains controversial and needs further investigation.$^{11,20,24,27}$ Further, the unknown clinical relevance of peri device-flow in percutaneously closed LAAs, together with the associated non-negligible mortality in the real-world setting necessitates a patient-tailored and outcome-oriented strategy, in a true heart-team setting as proven in other programs.

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References

References are available as supplementary material at European Heart Journal online.

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Heart Foundation series

The Swiss Heart Foundation

Short history of the Swiss Heart Foundation: The Swiss Cardiology Foundation, as the heart foundation called itself at the time, was founded on 26 January 1967 in Berne on the initiative of two professors from Western Switzerland, Professor Pierre W. Duchosal (Geneva) and Professor Jean-Louis Rivier (Lausanne). The reason and trigger were a rapid increase in the diagnosis of cardiovascular disease in Switzerland as well as abroad, that was over and above the rate due to increasing age. Right from the start, the Swiss Heart Foundation depended exclusively on private donations, legacies, and sponsoring contributions in order to finance its projects. Since the beginning, the main purpose of the foundation has been to fund cardiovascular research. As the result of a review of the statutes in 1978, this purpose was then extended: patient information, raising public awareness, prevention, and health promotion have become important additional tasks of the foundation. In 1999, the previous cardiological focus of the foundation was extended to include the circulatory (cardiovascular) system as a whole, thereby also including stroke.

Research funding

The Swiss Heart Foundation occupies a key role. In Switzerland, it is the organization that can provide timely seed funding for cardiovascular research projects. Thus, necessary funds are available during the crucial phase and can facilitate the breakthrough of a good project. As a result, important therapeutic advances have been implemented time and again since the founding days of the foundation; for example, balloon dilatation of the coronary vessels in 1977 by Andreas Grünzig at the Canton Hospital of Zurich and coronary stenting in 1986 by Ulrich Sigwart at the Vaud University Hospital Centre (CHUV) in Lausanne. Moreover, treatment of arteriosclerotic cardiovascular diseases has been significantly improved by new drugs. Furthermore, since 1981, an annual research prize is awarded for the best Swiss publication in cardiovascular or stroke research.

Prevention: assuming individual responsibility

Reduction of all cardiovascular risk factors is a key concern of the foundation. Its programmes include the life-saving programme ‘HELP’ and various services offered within the framework of workplace health
promotion. It runs prevention campaigns annually – currently, ‘Recognizing strokes, acting quickly and correctly’.

With the ‘HeartCheck’, the Swiss Heart Foundation offers the opportunity to have one’s individual cardiovascular risk and risk factors such as blood lipid levels and blood glucose determined in one of 500 certified pharmacies throughout the country. The online cardiovascular tool Swiss Heart Coach (www.swissheartcoach.ch) in turn supports and accompanies users in their quest to lead a healthy life. The coach not only determines the individual cardiovascular risk and heart age but also shows the individual health potential and gives concrete suggestions on how to improve it.

Patient information and promoting self-management

The Swiss Heart Foundation offers an extensive range of information in the form of books, flyers, leaflets, CDs, DVDs, websites, and apps. Patients can ask medical questions via our heart telephone and in writing. Additional ways to share knowledge and competence include lectures and patient workshops, which we offer all year round. Furthermore, the foundation maintains a nationwide network of heart groups; there are currently 155 of these. Cardiovascular patients meet up with each other on a weekly basis for cardio training. This helps them regain confidence in their own capabilities. Heart groups thus offer cardiovascular patients the best opportunity to establish for the long-term a healthy lifestyle with the support of like-minded persons.

National strategy for cardiovascular diseases, stroke, and diabetes

The National strategy for cardiovascular diseases, stroke, and diabetes 2017–2024 was published in November 2016. The Swiss Heart Foundation is one of the funding bodies of the strategy, together with the Swiss Society of Cardiology, the Union of Vascular Societies of Switzerland, the Swiss Stroke Society, and diabetes organizations in Switzerland. The strategy will help to preserve and further reinforce.

Research prize for 2016: Emotions can strike the heart

The 2016 research prize, with a value of 20 000 Swiss francs, was awarded to Dr Jelena-Rima Ghadri and PD Dr Christian Templin for their research work on Takotsubo Syndrome. These two researchers from the University of Zurich discovered that not only negative events can trigger this malfunction, but sometimes extremely joyful emotions, too. Takotsubo Syndrome is almost as life-threatening as an acute myocardial infarction. The researchers are now searching for a suitable therapy to enable the heart function to recover as quickly as possible and without complications.
healthcare and hence quality of life in Switzerland. With this strategy, the numerous organizations involved are joining forces. The strategy furthermore supplements the National Strategy for the Prevention of Noncommunicable Diseases (NCD strategy) published by the Swiss Federal Office of Public Health (BAG). The strategy can also be downloaded in English at www.cardiovasc-suisse.ch.


- Promote high-quality, integrated and patient-centred care for chronically ill and multimorbid patients
- Strengthen prevention and early detection
- Optimize acute care of heart attack and stroke
- Reinforce coordination and cooperation at all levels
- Improve the available data(bases) for Switzerland
- Close funding gaps and improve the health policy framework

The measures proposed also provide impulses for the Swiss Heart Foundation. As part of the strategy, the following projects are currently being implemented:

- Funding of the research project ‘Swiss Atrial Fibrillation BURDEN’ with an extraordinary grant. It is a cohort study with 13 participating Swiss hospitals. 2400 patients with atrial fibrillation are being investigated in a longitudinal process for clinically non-manifest cerebrovascular events. It is presumed that these clinically non-manifest lesions will impact on cognitive function and, over the long-term, on the development of dementia. In this connection, the question is whether the incidence of dementia can be reduced by adjusting the stroke prophylaxis (anticoagulation).

- In the area of life saving, the development of regional first responder programmes based on the model in the Canton of Ticino are being strongly encouraged. A correctly applied first responder concept leads to an increase in the probability of surviving neurologically intact, an out-of-hospital cardiac arrest (OHCA). First responders were first introduced in the canton of Ticino in 2005 and since then have been further developed with great success: the survival rate of OHCA increased from 15% to over 50% in 10 years in the shockable rhythm subgroup, which is an absolute high in Switzerland.

- Furthermore, as a first preparatory step, the federal government’s NCD strategy foresaw the creation of a national reference framework for evidence-based approaches and offers for promoting self-management. It should further a common conceptual understanding amongst stakeholders. In the beginning of 2018, the reference framework was finalized under the aegis of the BAG and the Swiss National Conference of Health Leagues (GELIKO), whose members also include the Swiss Heart Foundation. To this end, the members of GELIKO are pursuing the goal of providing appropriate self-management offers under one roof in future, in the sense of multimorbidity counselling or case management.

Other projects within the framework of the strategy are being evaluated and should commence in the coming years.

Conflict of interest: none declared.