Stroke Action Plan for Europe

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The Stroke Action Plan for Europe (SAP-E) is a comprehensive initiative aiming to improve stroke care across Europe. Created in 2017 by the European Stroke Organisation and the Stroke Alliance for Europe, the SAP-E involves patients and scientific societies from 48 countries. With seven domains, including primary prevention and life after stroke, the SAP-E focuses on enhancing the entire stroke care pathway. Through initiatives such as the Stroke Service Tracker survey, the SAP-E monitors progress and advocates for better stroke care outcomes. The SAP-E plays a crucial role in shaping stroke care practices in Europe.

Keywords

European Stroke Organisation (ESO), organisation of stroke care, Stroke Action Plan for Europe (SAP-E), Stroke Alliance For Europe (SAFE), stroke prevention, stroke treatment

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What is the Stroke Action Plan for Europe?

Stroke is one of the most enormous burdens to healthcare services.[1] Despite our combined efforts, it affects more than one million people annually in Europe. Although we have abundant knowledge regarding stroke prevention and treatment, there is still a significant gap between the theory and real-world stroke care, even in the most developed European countries.

The Stroke Action Plan for Europe (SAP-E) 2018–2030 is a policy action plan by definition.[2] The SAP-E is an exceptional initiative from a European point of view. In the past, similar initiatives have always been purely a matter for professional societies, but the SAP-E is a joint activity of patients and scientific societies. The SAP-E is a pan-European initiative, outlined in 2017 by the European Stroke Organisation (ESO) and the Stroke Alliance for Europe (SAFE).[3,4] The ESO and the SAFE represent stroke support organizations and national stroke professional societies from 48 countries. It is the most extensive policy project on stroke ever undertaken in Europe. It is inspired by earlier European declarations from the Helsingborg meetings in 1995 and 2006, covering the organization of stroke services, management of acute stroke, prevention, rehabilitation, evaluation of stroke outcome and quality assessment.[5,6] The SAP-E has seven domains in total, including primary prevention, life after stroke and priorities for translational stroke research.[7] The SAP-E is the first plan aimed at improving the entire stroke care pathway, including all patients affected by stroke, with the aim of achieving better outcomes for all European patients with stroke.

Half-time achievements of Stroke Action Plan for Europe

As we are currently approaching the half-time of the project, it is time to look at the implementation and targets of the plan.

The implementation part would not be possible without a fully functioning action plan infrastructure. The SAP-E is led by an 18-member steering committee chaired by Professor Christensen. Each participating country is represented by two national coordinators: one from a professional scientific organization and another from a patient support organization; in total, a network of over 90 national coordinators was established. This network has regular Zoom meetings every 2 months, in addition to in-person meetings twice a year. The team of national coordinators is supported by completed and approved resources for advocacy and care improvement in individual countries: the full text of the SAP-E, the SAP-E declaration to be signed by all healthcare shareholders, essentials of stroke care guidelines, a template for stakeholder analysis and a template for a national stroke plan. As of April 2024, 13 European countries signed the declaration of the SAP-E.

Implementing respective national stroke action plans can be challenging, and it requires the involvement of all the relevant stakeholders, including not just healthcare professionals but also governments, insurance companies and patient support organizations, among others. To ensure the success of the SAP-E in each participating country, it is crucial for national coordinators to foster awareness and sustain the recruitment of regional stakeholders. Fostering awareness means informing and educating stakeholders about the need for change and the benefits the SAP-E can bring. When stakeholders are aware of the challenges and opportunities that lie

ahead, they are more likely to support the process and contribute to its success. We have seen this to be the key factor in the countries that already signed the declaration and completed a national stroke action plan.[8]

One of the completed and actively ongoing achievements of the SAP-E is the annual Stroke Service Tracker (SST) survey conducted among all participating countries.[9] The results of the survey are available on the SST website from the first collection year in 2020 to the latest data from 2022, which was presented at the European Stroke Organisation Conference in May 2024.[9] The data from 2022 are currently finalized and were made public in May 2024. The SST collects data to monitor the progress of the 12 key performance indicators (KPIs) based on the main targets in all seven domains of the action plan. The data included in SST are a unique data set targeted solely to stroke care. The KPIs allow countries to analyze their respective progress across the entire chain of stroke care and compare their data with those of other SAP-E countries. The SST data are better suited for stroke advocacy than for other country-level data sets, such as the Organisation for Economic Cooperation and Development (OECD) or Eurostat.[10,11] Compared with those, the SST contains not just stroke incidence and mortality but also specific treatment data, i.e. population rates of recanalization (intravenous thrombolysis and thrombectomy) or access to essential secondary prevention drugs. Another crucial feature of SST is the part dedicated to mapping the organization of stroke care services, such as emergency medical services (inclusion of stroke call and prenotification), coverage and capacity of dedicated stroke units and their accreditation and quality-of-care programmes, the capacity of facilities for stroke recovery, national preventive strategies, the existence of stroke support organizations, rehabilitation, sector transition discharge plan, and many more.

There are some limitations to the quality of SST data; the most important is the unavailability of some data in some countries. Another problem is the varying quality of data sources from different countries, i.e. from the highest possible level of the national register with mandatory reporting and cross-checking with national health surveillance to educated estimates. The SST tries to collect and publish the respective data sources concerned and encourages countries to fill in the missing data proactively.

What is the half-time status of the four main targets of the SAP-E to be accomplished by 2030 (stroke reduction by 10%; 90% of all patients treated in a stroke unit; a national plan for the entire chain of care and an implemented national strategy for a healthy lifestyle and environment)?Stroke incidence in high-income countries decreased, and that in low-income countries increased over the last 20 years.[12] We can see a trend in lowering incidence in the available 2-year SST data from most European countries (from 2020 to 2021), but the final SAP-E target reduction of 10% was not reached. Twelve out of 23 countries with available data had more than 75% of patients with appropriate symptoms admitted to the stroke unit. The target of 90% stroke unit admissions was not reached anywhere. On the contrary, four countries had stroke unit admissions below 25%.[9]

A national plan for the entire chain of stroke care existed in 2021 in 12 European countries.[9] The preparation of a national plan is reported as ongoing in most European countries. A national strategy for multisectoral public health interventions promoting and facilitating a healthy lifestyle, and risk factor control has been implemented in 18 countries.[9]

Success stories from Stroke Action Plan for Europe countries

No action plan will be implemented unless motivated and capable people are behind it. The SAP-E is fortunate to have a network of national coordinators in all participating countries.[13,14] In January 2024, the second meeting of SAP-E national coordinators took place in Lisbon, Portugal.[15] In addition to inspiring workshops and expert discussions on individual SAP-E domains, a session was dedicated to the most significant achievements of the SAP-E and stroke care in all 37 countries represented at the meeting. Each national coordinator presented the most important achievement in stroke care, in addition to four achievements in respective domains: acute care, prevention, rehabilitation and life after stroke.

Most countries reported substantial advances from 2023 in all domains. The variety of top achievements was staggering. These are due to major system changes – i.e. updating or creating national stroke plans (Spain, Catalonia, England, Romania, Wales and Georgia), establishing a national stroke service (Moldova), founding a national stroke organization (Montenegro), government declaration of neurology as a priority speciality (Poland) and government declaration of stroke as a priority despite war (Ukraine) – to local or regional, but still essential changes – i.e. new stroke units (Armenia, Portugal, Iceland, Israel, Kazakhstan, Moldova and Ukraine) and new facilities providing thrombectomy (Catalonia, Hungary, Kyrgyzstan, North Macedonia, Portugal, Romania, Scotland and Sweden).

A wide variety of achievements were also reported in the field of secondary prevention – the development of a regional pathway for transient ischaemic attack (TIA) service provision (Northern Ireland); pilot stroke-prevention programme (Armenia); lowering the incidence of stroke (Austria); establishment of training for out-patient stroke neurologists for planned stroke-prevention clinics (Czechia); national survey on post-stroke management (Belgium and Iceland); availability of patent foramen ovale (PFO) occlusion (Croatia); reaching the ceiling in anticoagulation in patients with atrial fibrillation (Denmark and Sweden); training for general practitioners (GPs) in all regions on stroke prevention (Estonia); a national screening programme (Hungary and Kazakhstan); new multidisciplinary teams of a neurologist, cardiologist and haematologist (Israel); reimbursement of direct oral anticoagulants (Lithuania); nurse-led stroke clinic 3 months after stroke (Malta) and many more.

The least frequently reported achievements were from the domains of life after stroke and rehabilitation. Although fewer were reported, those reported were more worth following. The prime examples are as follows: the telephone-based free stroke support programme in Catalonia, the patient-reported outcome measure survey (England and Wales), the health insurance-supported stroke coordinator (Estonia), post-stroke checklist implementation (Finland and Sweden) and the establishment of peer support groups (Bulgaria, North Macedonia and Portugal).

The steering committee chose to revise the original plan as there have been multiple important improvements since the SAP-E came out in 2018. Some goals are already achieved in most countries and we need to advance with the provision of stroke care. The main example is the thrombolysis rate; it should exceed 15%, which was planned in 2018. The updated plan will be introduced to the public in August 2024.

Discussion

The SAP-E demonstrated in its first 5 years a massive inequality in providing stroke care in Europe.[9,15,16] The disparity exists not only among different countries, but also inside every respective country in different regions; we have examples of this practically everywhere it was analyzed. We can see that the quality of stroke care does not always depend on the level of healthcare funding or the respective gross national product of an individual country. The SAP-E provided us with multiple examples of resource-poor countries performing much better than their wealthier counterparts. It all depends on the level of organization, know-how and, especially, the dedication of individuals leading the care in every respective country. The SAP-E is educating and helping those stroke champions, i.e. national coordinators, to grow and inspire each other.

Not all is ideal. The main disadvantage of the SAP-E is that it does not have the means to change stroke care in individual countries without an active and dedicated national coordinator. The SAP-E can help with pan-European know-how and peer pressure across borders. One limitation is the lack of direct funding to facilitate the change in stroke care. The SAP-E can and must lead to the inception of such financing programmes, based on the knowledge and know-how it provides.

Do we need our European stroke plan when we have World Health Organization (WHO) action plans on noncommunicable diseases (NCDs)? The SAP-E complements the WHO Global Action Plan on NCDs and, more specifically, the Action Plan for the Prevention and Control of Noncommunicable Diseases in the WHO European Region 2016–2025.[17] Although the risk factors and preventive strategies are common to all NCDs, stroke has specific acute treatment, rehabilitation and life-after-stroke requirements utterly different from other NCDs. The SAP-E identifies those differences and sets targets and solutions to those goals.

In conclusion, the SAP-E is the only existing action plan for stroke in Europe, and it is performing better than expected in its fifth year. ❑

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