Call to Action

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How can we end the "stroke care lottery" in Europe?

CALL TO ACTION

The European Stroke Organisation (ESO) calls on political leaders to recognise stroke as an EU-wide health priority and end inequalities in access to the current stroke management standards. ESO highlights five specific actions to remove barriers to acute treatment and improve stroke survival rates and the life of European stroke patients.

CONTEXT

Stroke is the second most common cause of death, and the leading cause of acquired disability in Europe, in total affecting 1 million people annually. Around one third will not survive, whereas one third will live with long-term disability. Additionally, disability is so severe in 75 percent of stroke survivors that it decreases their ability to work. Stroke also results in post-stroke dementia, depression, and epilepsy requiring highly dependent chronic care for survivors. Thus, stroke is a major public health concern.

Stroke is the 2nd most common death cause. It affects 1 million people annually. A third of stroke victims do not survive an attack. A third of survivors live with long-term disability.

Stroke is estimated to cost the EU economy €45 billion a year, almost a third of the EU's budget in 2017. Given Europe's aging population and the increase of the risk of stroke with age, forecasts predict a 34% rise in the total number of stroke events in the EU between 2015 and 2035. In addition to the direct costs, there is an additional cost to the European economy in productivity losses, disability and informal care. Therefore, stroke will continue to have significant economic and social implications for European citizens.

The most common type of stroke is ischemic stroke, accounting for 80 percent of all incidents. Almost half of these strokes are caused by large vessel occlusions (LVO), the most severe and debilitating type of ischemic stroke. The longer it takes to get appropriate treatment, the greater the risk of death or major disability.

Until early 2015, the reference treatment for stroke consisted of intravenous thrombolysis. This method is based on the use of a pharmacological technique, commonly called clot busting or intravenous tissue plasminogen activator (iv-tPA). However, iv-tPA administration is limited by a number of clinical factors, including patient characteristics and time since symptom onset.

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In recent years, there have been a number of therapeutic breakthroughs in acute stroke treatment: technological advances in endovascular treatment for LVO strokes and the adoption of new clot removal technologies (mechanical thrombectomy) can profoundly improve outcome for many stroke survivors -- and therein alleviate its societal impact.

With such revolutionary developments in stroke treatment, it is no longer uncommon to combine intravenous and endovascular treatments to take advantage of the benefits both types of interventions bring, and thus save patients from irreversible ischemic brain damage.

Although the quality of care can be said to have improved across the EU, large disparities between member states and regions, in respect to stroke survival and remission rates persist. In 2017, ESO surveyed European national health-care systems regarding acute stroke care management with an emphasis on stroke unit care and reperfusion availability and use. In this survey, we observed considerable inequalities in stroke care throughout Europe and adjacent countries, not only between but also within countries.

Full coverage by stroke units is not available in large areas. iv-tPA and mechanical thrombectomy are still not routine procedures in several regions and many stroke victims in Europe still have no access to acute stroke treatment. This can and should be resolved.

There is an urgent need for the EU to recognise stroke as an EU-wide health priority, which would send a clear signal to the member states and incentivise them to develop acute stroke systems of care strategies. Such declaration would be in line with the main priorities of the EU with regard to health: that is encouraging smarter spending in sustainable health systems, investing in people's health, reducing inequalities and tackling the chronic disease burden in Europe.

Five recommendations to policy-makers:

1. *Raise awareness of stroke and innovative stroke treatments*
2. *Promote equity of access to innovative stroke treatments*
3. *Encourage and facilitate exchange of best practices*
4. *Train neurointerventionalists*
5. *Support the development and implementation of stroke management strategies*

RECOMMENDATIONS

1.Raise awareness of stroke and innovative stroke treatments

Until recently, the most widespread treatment for stroke was intravenous thrombolysis, a pharmacological solution, which can be applied within a maximal period of 4.5 hours from the onset of the symptoms. With new endovascular treatment techniques such as mechanical thrombectomy, mechanical clot-removal, this period is extended to up to 6 hours.

Mechanical thrombectomy may be the only option for a significant segment of the acute ischemic stroke patient population. Clot removal provide positive outcomes for the many patients who either miss the window to receive pharmaceuticals and/or have large vessel occlusions for which thrombolysis has limited efficacy.

When it cannot be prevented, stroke can be treated even in the most severe cases. Millions of long term economic and social health costs could be avoided. Indeed, studies have demonstrated the cost-effectiveness of mechanical thrombectomy as the treatment significantly reduces the recovery and rehabilitation time and risk of long-term disability.

There is a critical need within the EU of increasing awareness among national governments and the general population on innovative stroke treatments and their benefits.

The European Parliament can play a particularly important role in awareness raising. As democratically elected representatives, MEPs maintain a relationship with their constituencies (e.g. external activities or "green" weeks) and thus have the opportunity to draw attention to the issue in meetings and public-facing campaigns on the national level, in cooperation with the national and local stakeholders of the stroke care chain

2.Promote equity of access to innovative stroke treatments

Stroke incidence and survival rates vary greatly across Europe. According to the latest available figures, stroke mortality rates per 100 000 inhabitants range from under 50 in France and Luxembourg, to over 300 in Romania. Fatality rates within 30 days of hospital admission per 100 admissions are the highest in Latvia (18.4%), and lowest in Finland (5.1%).

ESO's survey reveals major disparities between and within countries on stroke care. MT uptake is quite advanced in some countries in the EU like France and Germany, where it benefits from genuine scientific and political support. However, the majority of EU countries have yet to fully embrace the technology, mainly constrained by:

> a lack of trained personnel

> a lack of appropriate healthcare infrastructure and/or organisation for stroke patients

> initial high cost investments

As all EU citizens have the same basic right of access to quality healthcare and right to benefit from medical treatment, regardless of country of residence, and given that member states cannot address these challenges on their own, the EU should prioritize and tackle the issue. Respecting the fact that the reform of a healthcare system is the responsibility of the member states, the EU still has powerful tools that it has developed to encourage these efforts such as sharing health information, supporting cross border cooperation, assessing health system performance, developing health technology assessments, introducing reference networks and promoting exchange of best practices.

3.Encourage and facilitate exchange of best practices

Whereas the most efficient acute stroke care system is the one that is tailor made and best take into account the country's specificities, it is indisputable that EU Member States can learn from each other's' experiences and knowledge. A number of EU countries have/are in the process of re-organising their acute stroke care systems. Time is ripe to facilitate the exchange of best practices and help member states and health authorities to make them a reality.

In June 2017, the EU heads of states and governments adopted Council conclusions on voluntary cooperation between health systems, encouraging cooperation between member states in tackling barriers to access to new health technologies, and particularly recommends doing so under best practice frameworks. This is an important step forward.

The Commission has introduced a policy on Health Technology Assessment, i.e. a socio-economic and organisational systematic evaluation of effects and impacts of health technologies. A voluntary HTA Network was created under this framework aiming to facilitate the efficient use of HTA resources, spur knowledge sharing and promote good practices in respect to HTA methodology. One of the projects examined the effectiveness and safety of mechanical thrombectomy, pointing at inter alia inconsistent reimbursement policies for these devices.

A first step towards promoting equal access to innovative treatments would be for the Commission to introduce an EU wide registry on current practice of stroke care throughout Europe, including in relation to endovascular treatment. Such a database would facilitate the introduction of baselines and benchmarks against which progress can be measured and allow for the comparison between countries. For instance, ESO introduced the RES-Q registry to gather data from clinical sites across Europe, with the goal of monitoring the quality of the healthcare system, identifying the gaps and areas of improvement in stroke care quality. This could be used as a basis.

4.Training of Neurointerventionalists

Stroke care requires a particular set of skills given the narrow time window for decisions on treatment, and the broad range of clinical and radiological information to be taken into account in the diagnosis. The complexity has increased in recent years, due to the breakthroughs in treatment and developments of diagnostic tools.

One of the main and common challenges to ensure access to treatment is how to provide sufficient manpower and have well-trained physicians, especially interventionists.

Twelve international societies have joined forces to produce a guiding document for physicians looking to treat acute ischemic stroke patients with mechanical thrombectomy. Necessary skills can only be provided through training and experience by maintaining sufficient case volume.

Given the lack of trained physicians in Europe, several scientific societies introduced training courses. Otherwise, training has been restricted to trainees learning from senior physicians, which was deemed less-than-optimal.

These training programs require quality-control. It should initiate the development of new training programs for a number of physicians, based on the estimates made in regional national plans on the reorganization of stroke services aiming to cover the entire population with 24/7 acute stroke care.

The next step is to facilitate the exchange of know-how and ideas in introducing the new technologies and integrating them into the healthcare system. The Commission has the opportunity to set up for a period of time so-called expert groups, which assist it by providing legal, economic, technical and/or practical insight and expertise. By institutionalising biannual meetings gathering first healthcare experts from across the Union, followed by government representatives from all EU Member States, the Commission would provide a platform for the exchange of views on technical matters and help translate them into political commitments and a "race to the top".

5.Support the development and implementation of stroke management strategies

Stroke management strategies are meant to elaborate on the organisation of the acute stroke systems of care, on the link between emergency services and stroke physicians, and allow for the assessment of the quality of stroke care. These inter alia, ensure that there is an optimal number of stroke units, multi-disciplinary entities that are able to provide a range of interventions are deemed to improve stroke outcome.

ESO established the Stroke Unit Certification Platform to contribute to the harmonisation of high quality stroke care systems across Europe and has recommended the establishment of stroke units in all centres caring for stroke patients. However, even though there has been an increase in the number and quality of stroke units in Europe, the implementation of stroke unit care and comprehensive stroke services remains inadequate due to perceived cost barriers, lack of trained staff, equipment and facilities. Additionally, divergences are great between and within countries, with rural areas having lower access.

The Commission should support the Member States in developing comprehensive stroke management strategies. In doing so, it should refer to and uphold adherence to ESO, ESMINT and ESNR guidelines. These guidelines can be seen as recommendations on how to structure and organize a stroke unit in a continuum of care, making good stroke management possible.

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About the European Stroke Organisation

The European Stroke Organisation (ESO) is a pan-European society of stroke researchers and physicians, national and regional stroke societies and lay organisations that was founded in December 2007. The ESO is an NGO comprised of individual and organisational members.

The aim of the ESO is to reduce burden of stroke by changing the way that stroke is viewed and treated. This can only be achieved by professional and public education, and by making institutional changes.

The ESO provides assistance in achieving this goal and in harmonising stroke management across the whole of Europe and taking action to reduce the burden of stroke regionally and globally. Europe allied against stroke.

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