Organizational Update from the European Stroke Organisation

Martin Dichgans, MD^{1,2,3}; Else Charlotte Sandset, MD^{4,5}; Peter Kelly, MD^{6,7}

6 Stroke Service, Mater University Hospital and University College Dublin, Ireland

7 Health Research Board Stroke Clinical Trials Network Ireland

Correspondence should be addressed to:

Prof. Martin Dichgans

Institute for Stroke and Dementia Research (ISD)

Feodor-Lynen-Str. 17

81377 München

Germany

M: Martin.dichgans@med.uni-muenchen.de

P: +49-89-4400-46018

Word count: 1.242

Figures: 0

Tables: 0

References: 3

¹ Institute for Stroke and Dementia Research (ISD), University Hospital, LMU Munich, Munich, Germany

² Munich Cluster for Systems Neurology, Munich, Germany

³ German Center for Neurodegenerative Diseases (DZNE), Munich, Germany

⁴ Stroke Unit, Department of Neurology, Oslo University Hospital, Norway

⁵ The Norwegian Air Ambulance Foundation, Oslo, Norway

Non-standard Abbreviations and Acronyms

ESO, European Stroke Organisation

ESMINT, European Society of Minimally Invasive Neurological Therapy

SAP-E, Stroke Action Plan for Europe

ESOTA, European Stroke Organisation Trial Alliance

Text

More than ever, the European Stroke Organisation (ESO) represents the Voice of Stroke in Europe. Disparities in the level of stroke care across Europe along with progress in almost every field of stroke research have become a driving force for ESO's activities. Meanwhile, the society has set clear priorities.

Guidelines - Building on the success of its conferences, educational events, and new journal and in light of an ever-growing community, ESO recently decided to invest in strengthening its guidelines. The latest development in this regard was a Webinar on May 11th in which four new guidelines were presented along with ESO's new web-based platform for convenient access and daily use (https://eso-stroke.org/guidelines/eso-guideline-directory/). Among the topics covered by the new ESO Guidelines are "covert small vessel disease", "space-occupying brain infarction", "management of carotid stenosis", and "blood pressure management in acute ischemic stroke and intracerebral haemorrhage". These guidelines add to others released in early 2021 on the management of Transient Ischaemic Attack and intravenous thrombolysis for acute ischaemic stroke. ESO Guidelines are done according to the Grading of Recommendations Assessment, Development and Evaluation system. The working groups have broad representation from experts across Europe and are coordinated by Guillaume Turc (France) and Simona Sacco (Italy) who are pursuing this with enormous energy. Overall, ESO currently offers more than 30 guidelines with several additional guidelines in the pipeline to be published in 2021.

European Stroke Organisation Conference - ESO's annual conferences have become a truly international event presenting front-line results from major clinical trials along with cutting-edge stroke research and educational activity to a wide audience including allied health care professionals. The growth of this conference has been beyond expectations with the number of delegates rising from about 2.700 in 2015 to almost 5.700 in 2019. Due to the COVID-19 pandemic this year's conference will - for a second time - be held as a fully virtual event. Still, participants can expect an excellent program with first class science, multiple new elements including interactive sessions and an even more "modern look". As in the past, this years' European Stroke Organisation Conference (chair: Joanna Wardlaw, UK) will feature rising stars, emerging topics including technology, and convene scientists from around the globe. ESO liaises with partnering societies such as the European Academy of Neurology, European Society of Minimally Invasive Neurological Therapy (ESMINT), and European Society of Neuroradiology but partnership with other international stroke societies remains an integral element of its overall strategy. Venues for 2022 (Lyon) and 2023 (Munich) have been chosen with rotations into other European cities planned for 2024 and the following years.

European Stroke Journal - Thanks to the outstanding leadership of its Editor-in Chief, Bo Norrving, and its Vice Editors, Didier Leys and Karin Klijn, the European Stroke Journal has - within less than 4 years - become a prime outlet for all aspects of clinical stroke research ranging from prevention and prehospital care to rehabilitation and life after stroke. The European Stroke Journal, currently published quarterly, was listed in PubMed in 2019, and is the primary outlet for the ESO Guidelines. All performance metrics are steadily improving such that ESO expects its journal to rapidly attract an even broader community of researchers and clinicians.

Stroke Action Plan for Europe (SAP-E) - Led by Hanne Christensen, Francesca Romana Pezzella, and Arlene Wilkie, the SAP-E emerged from more than a year of preparatory work and was set up with the aim of achieving several key goals by 2030: (1) reduce the absolute number of strokes in Europe by 10%; (2) treat 90% of all patients with stroke in Europe in a stroke unit as the first level of care; (3) have national plans for stroke encompassing the entire chain of care in place; and (4) fully implement national strategies for multi-sectorial public health interventions promoting and facilitating a healthy life-style, and reducing

environmental (including air pollution), socio-economical and educational factors that increase the risk of stroke.² The SAP-E was formally launched in the EU Parliament on 23 May 2018 and is pursued in close collaboration with the Stroke Alliance For Europe (https://actionplan.eso-stroke.org/). Key implementation steps are under way, including a series of consultation meetings with stakeholders across Europe, identification and mobilisation of national leaders and stroke support organisations, development of a website with a portal for continuous measurement of national-level key performance indicators, and development of educational and support materials. An important step was the formal accreditation of ESO by the World Health Organisation as a recognised non-state actor in 2020.

ESO Stroke Unit and Stroke Center Certification Platform - The ESO Stroke Unit and Stroke Center Certification platform is another measure to improve the quality of patient care across Europe by reducing variation in clinical processes. It provides a benchmarking system for quality of stroke management and provides an objective assessment of clinical excellence. Key features of the certification criteria include the availability of trained personnel, diagnostic equipment, acute treatment and collaboration with other stroke caregivers. To date 32 stroke units and 46 stroke centers in 11 countries have been certified by ESO, after undergoing thorough review by external auditors and the ESO Stroke Unit Committee.

Educational activities - Educational activities are coordinated by Alastair Webb, UK and the ESO Education Committee. The ESO-ESMINT Stroke Winter School is organised yearly in Bern, Switzerland, targets pairs of trainee stroke physicians/neurologists and interventional neuroradiologists and aims to improve multidisciplinary acute stroke care. The ESO Edinburgh Stroke Research Workshop is a 3-days intensive and interactive research workshop organised in Edinburgh, UK, aiming to guide junior researchers shape an idea into a two-page research proposal and fundable project. The ESO Summer School is organised yearly as one-week course in different cities in Europe aimed at junior clinical trainees and researchers.

The ESO electronic platform (eSTEP), an interactive educational platform, will be a repository for lectures and webinars, and will be launched in the second half of 2021. From 2022 ESO will, in collaboration with the University of Bern, Switzerland offer a Stroke Masters program. The program is a part-time course over 2 years and aims to train the next generation of European stroke clinicians and researchers.

ESO Trials Alliance - ESO members are highly-active in clinical and translational stroke research. In 2019, the ESO Trials Alliance (ESOTA) was established to support European clinical scientists in the conduct of multi-national randomised trials. ESOTA aims to establish a European 'super-network' which spans national borders and links stroke clinicians to conduct international multi-centre trials more efficiently. Beginning with 5 founding national member stroke networks, ESOTA has rapidly expanded and currently includes 9 national networks from England/Wales, Scotland, Ireland, Spain, Netherlands, Switzerland, Germany, Belgium, and Turkey, comprising several hundred hospitals and experienced investigators. Further expansion is planned from 2021-2024. Several randomised trials are ongoing or in set-up phase within ESOTA countries, and the economies of scale are expected to improve competitiveness for future European funding applications.

Dealing with the COVID-19 pandemic - Maintaining stroke care throughout the COVID-19 pandemic has been a challenge for many European stroke centres. In order to get an overview of where ESO as an organisation could provide support to its members, a survey was carried out at the very beginning of the pandemic. In addition, ESO established a COVID-19 resource webpage for all members to share projects and papers related to the pandemic (https://eso-stroke.org/resources/covid-19/). Among the priorities was to continue educational and scientific activities such as ESO the winter school, research workshop and conference in a virtual format.

Disclosures

None

References

- 1. Steiner T, Dichgans M, Norrving B, Aamodt AH, Berge E, Christensen H, Fuentes B, Khatri P, Korompoki E, Marti-Fabregas J, et al. 2020 European stroke organisation standard operating procedure on guideline preparation and publishing. Eur Stroke J. 2021; in press
- 2. Norrving B, Barrick J, Davalos A, Dichgans M, Cordonnier C, Guekht A, Kutluk K, Mikulik R, Wardlaw J, Richard E, et al. Action plan for stroke in Europe 2018-2030. Eur Stroke J. 2018;3:309-336
- 3. Kelly P, Salman RA, Arsovska A, Dippel DW, Fischer U, Ford GA, Fuentes B, Lemmens R, Marshall JC, Nederkoorn PJ, et al. Building a European 'network of networks' for stroke clinical research the European Stroke Organisation trials alliance (ESOTA). Eur Stroke J. 2019;4:224-232.