COVID-19: a catalyst for flexibility and creativity in neurology

The European Academy of Neurology (EAN) Congress took place virtually this year, on May 23–26. The event attracted more than 42 000 participants, compared with around 6000 participants in previous years. Somewhat surprisingly, the Congress has reached a very different audience—only 30% was European (compared with around 80% in previous years); about 40% were neurology residents or students (few typically participate due to the cost of travel); and around 30% were from South America, which is completely new. This eclectic mix of delegates was facilitated by the availability of the Congress free of charge. The changes have presented EAN with a unique opportunity to further their mission "to foster and support the development of neurological excellence in Europe and across the world, leading to better patient care and outcomes". These sorts of changes, brought about by the pandemic, can be a catalyst for change in other areas too.

While virtual conferences can reach a broader audience, valuable networking is more difficult to recreate. EAN offered networking features that were very successful, and other novel opportunities, such as interactive childcare, but further solutions will be needed if virtual conferences become a long-term necessity or an important adjunct to physical conferences. Effective virtual interactions will have to meet the need for new platforms to supplement reduced educational options elsewhere, particularly if physical distancing restrictions continue.

Health-care providers and their patients can be at increased risk of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection during face-to-face consultations. There has been a noticeable decline in patients seeking care for some disorders, such as stroke, with obvious health-care implications, but also consequences for clinical training. Even for in-person encounters, the dynamic has changed with the need for physical distancing, wearing of masks, limited physical examination, and prohibition of elective procedures in many countries. How virtual training sessions can achieve the same learning opportunities and high-quality care as face-to-face examinations is a relevant consideration.

The challenges of physical distancing are being keenly felt also in research. Clinical trials have been largely put on hold. How clinical research can be resumed and done differently are important issues to address. Some patients with neurodegenerative diseases might be particularly vulnerable to severe SARS-Cov-2 infection, due to age and frailty, so there are ethical challenges around resuming research in these populations. For example, there is a risk that experimental treatments might increase susceptibility to or severity of SARS-CoV-2 infection if they affect immune function or necessitate repeated visits to a health-care facility, increasing risk of exposure. Use of telemedicine for remote visits to research participants, similar to its use for clinical care, seems unrealistic for some types of research (eg, those that require collection of biospecimens or imaging procedures).

As well as provisions for participant and investigator safety, practical considerations will include gaining approval from institutional review boards to reopen enrollment at a time when they are overwhelmed with COVID-19 research submissions. To facilitate the fast tracking of COVID-19 research, the WHO has proposed a Core Protocol for testing therapeutics. Similarly, the US Food and Drug Administration launched the Coronavirus Treatment Acceleration Program for reviewing study protocols within 24 hours. For non-COVID-19 clinical trials, some contract research organisations have implemented procedures for remote monitoring of trial sites. Further initiatives are needed for improving the efficiency with which non-COVID-19 research is approved. Novel approaches are also needed for the development and validation of outcome measures that can be administered remotely—not just patient reported outcome measures, but also quantitative measures of neurological function, such as the use of mobile applications to assess mobility, tremor, sleep patterns, etc. For remote measures to be useful in drug development, they will also need to be accepted by regulatory agencies.

The COVID-19 pandemic has highlighted strengths and weaknesses of remote platforms for research, training, and education. As reliance on virtual interactions hopefully abates, this should not be a call to return to previous practices. Just as EAN aims to use the lessons learnt from this year's virtual Congress to improve their services, innovative solutions are needed to optimise all virtual interactions. Flexibility and creativity will have to be encouraged if neurological research, education, and patient management are to thrive. ■ *The Lancet Neurology*

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For more on the **EAN Virtual Congress** see https://www.eanvirtualcongress.org/

For more on **EAN's mission** see https://www.ean.org/home/ambition/about-us

For more on the **effect of COVID-19 on stroke evaluation** see https://www.nejm.org/doi/full/10.1056/NEJMc2014816?query=featured_coronavirus

For more on the **WHO Core Protocol for therapeutics against COVID-19** see https://www.who.int/who-documents-detail/who-working-group-core-protocol-for-vaccines-against-covid-19

For more on the **Coronavirus Treatment Acceleration Program** see https://www.fda.gov/drugs/coronavirus-covid-19-drugs/coronavirus-treatment-acceleration-program-ctap