Education Council

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Ingmar Blümcke

Staff Members

Eva Biesel (Germany) Priscilla Shisler (USA)

Goal

The goal of the Education council is to work within the framework of the ILAE Strategic Plan and Mission to overview all aspects of ILAE educational activities and projects. This includes a competency-based approach for the organization of educational materials and development of new educational offerings. In accordance with the ILAE curriculum for Epileptology, we develop formal programs for a variety of learning levels. All structured eLearning activities are hosted on ILAE's eLearning platform (the "ILAE Academy") in a multilevel learning design consisting of self-paced, tutor-less online courses, adaptive learning techniques, and a blended learning approach including online webinars, VIREPA, and face-to-face courses at summer schools, workshops and congresses.

Specific activities include, but are not limited to:

- Online Courses and ILAE Academy
- ILAE Educational credits, examinations, and certificates
- Sponsorship and support of non-ILAE courses and symposia
- ILAE Education on Primary care
- ILAE collaboration with other organizations for the purpose of education
- Educational activities at ILAE Congresses
- Assessing the effectiveness of ILAE educational activities
- Exploring certification of educational activities organized by other entities.

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Achievements in 2020

ILAE Academy (Level 1):

We launched the ILAE Academy ahead of schedule on July 6, 2020, to respond to the COVID-19 pandemic and lockdown, meeting the increasing demand by our constituency for online teaching. By end of the year 2020, the Level 1 course package contained a total of 11 case-based eLearning modules, 50 ebrain sessions, the MRI teaching platform, and the histopathology tutorials. The launch was supported by an advertising campaign in several journals, online media, EpiCare, EAN, and through the YES-group. A review article about the online teaching portfolio in Epileptology provided by the ILAE was published in *Epileptic Disorders* 2020; 22(3):237-44, entitled *"e-learning comes of age: Web-based education provided by the International League against Epilepsy"* and coauthored by Sandor Beniczky, Ingmar Blümcke, Stefan Rampp, Priscilla Shisler, Eva Biesel, and Samuel Wiebe. The ILAE Academy attracted more than 26,000 visitors in 2020 who purchased 188 full packages for Level 1 and 47 individual course offerings, plus three institutional packages with up to 80 learners.

ILAE Academy (Level 2):

We have developed a roadmap for the implementation of teaching content for Level 2 (the proficiency level in Epileptology), which will consist of multiple offerings:

- A selected series of case-based eLearning modules from Level 1 will be upgraded into a modular system of microlearnings, always including the new online & interactive EEG reader and more patient videos from the *Epileptic Disorders* website.
- Adaptive eLearning programs will be developed in cooperation with Area9/Lyceum
- A series of five tutored regional online web tutorials with an audience of up to 10 participants per course (same language same/similar time zone)
- An interactive MRI course will be added to the existing VIREPA EEG course portfolio
- Microlearning modules taken from ILAE webinars and symposia

- 10 case-based eLearning modules for rare and complex epilepsies (in cooperation with the European Reference Network "EpiCARE")
- Online-webinars and published seminars in epileptology (Epileptic Disorders)

ILAE curriculum for Primary Care:

We have developed a teaching curriculum in Epileptology for primary care consisting of 6 domains, 26 competencies, and 83 learning objectives. The Task Force is led by Dr. Gagandeep Singh and reached consensus for the body of knowledge during a series of eight Zoom meetings.

Endorsement of international teaching activities (outside the ILAE Academy):

The Education council received ten proposals submitted online via the ILAE website. All proposals were critically reviewed by all council members. Suggested changes mostly addressed the issue of how to select learning objectives (only those which were covered at significant depth should be advertised), how to implement and document student engagement, and how to use the ILAE (survey monkey) feedback questionnaire. Following a second review of a revised proposal which addressed the council's feedback, all ten proposals were finally endorsed by the ILAE Education council.

Future Plans

ILAE Academy (Level 1):

Completion of the Level 1 teaching portfolio is of utmost importance during the 1st quarter of 2021. We plan to launch a total of 15 case-based eLearning modules for Level 1 on the ILAE Academy platform; 11 cases were successfully launched in 2020. Four more cases will be made available online by the end of February 2021, including Traumatic Brain Injury, Malaria, Focal Cortical Dysplasia, and Febrile Seizures. The storyboards for all four cases are in an advanced stage with two ready for programming, one in review by the Neuropsychology Task Force and one in need of further content development. Additional offerings for Level 1 in 2021 will cover translation of all case-based eLearning modules into Spanish. We are also looking forward to receiving CME accreditation for our eLearning portfolio from the US and EU accreditation bodies.

ILAE Academy (Level 2):

A primary task in 2021 will be the implementation of our strategic plan for Level 2: a certificate-based teaching program for learners in epileptology at the proficiency level. We will select up to ten Level 1 case-based eLearning modules, which will be upgraded into a Level 2 eLearning design. This includes a modular instructional design of the case presentation into (1.) semiology (including a choice of videos); (2.) EEG diagnosis (including a new interactive online EEG reader developed by Dr. Stefan Rampp from Erlangen, Germany); (3.) differential diagnosis (including MRI and etiologies); (4.) pharmacological treatment (based on the ILAE epilepsy classification; using the EpiPick-online tool when appropriate); (5.) counseling (prevention, lifestyle adjustment) and outcome (including referral to presurgical evaluation when appropriate).

Learning objectives that cannot be covered by these case-based eLearning modules will be addressed by a new adaptive eLearning approach using confidence-based marking in quizzes, repetition, and reinforcement with further learning resources. A pilot will be developed for epileptic comorbidities addressing psychosis, depression and anxiety, and tested during the first half of the year. We will develop this program in collaboration with the internationally renowned company Area9/Lyceum.

A total of ten case-based eLearning modules on rare and complex epilepsies will be developed in cooperation with the European Reference Network "EpiCARE" and included into our Level 2 teaching portfolio.

The blended learning approach is of utmost importance for the success of our Level 2 teaching design. In order to allow interactive teaching in small peer groups during the ongoing pandemic, we will start a series of regional web tutorials. The topics of the sessions will cover the comprehensive work-up strategy in difficult-to-diagnosis and - treat epilepsies. We expect a relief from travel bans in the second half of 2021, which will allow our students to access the f2f summer schools (ILAE core courses), ILAE congresses, as well as other workshops and symposia endorsed by the ILAE Education council.

We will develop a confidence-marked exam for the transition of students from Level 1 to Level 2 and for applicants not completing Level 1. This exam will help to guarantee that the expectation of the student to be taught in Level 2 content is likely met.

ILAE curriculum for Primary Care:

The Primary Care teaching curriculum for epilepsy will be released online during the 1st quarter of 2021 for a comprehensive review and evaluation by our constituency. Responses will be collected, and adjustments made pending consensus agreement by the Task Force. Our long-term goal is to implement the curriculum at the Level of primary care physicians, nurses, and associated health care workers around the world, particularly in resource-poor settings. This requires continued negotiations with other medical societies, health care providers, and administrations at national, regional, and international levels or with international health organizations. We also plan to develop online teaching materials which will be made accessible through the ILAE Academy platform.

Submitted by Ingmar Blümcke, Chair