LETTER

The need for a pragmatic seizure classification in clinical trials

To the Editors:
We read with interest the report by Steriade et al.1 of a pragmatic seizure classification based on the International League Against Epilepsy (ILAE) scheme for use in clinical trials. The authors sought to shift the focus to outcome measures that are reliable, interpretable by various stakeholders, and clinically relevant to the development of new antiseizure medications.1 This is a welcome practical proposal and expands on the importance of pragmatic seizure classification.

The utility of seizure classification categories is critical. Previously, we have noted the limitations of existing seizure classifications based on semantics, syntax, and semiotics of seizures.2 For example, “dialectic seizures” are unnecessarily broad. Steriade et al. recommended utilizing “focal aware with or without observable signs” instead of “focal aware with or without motor signs” and not distinguishing focal unaware with or without motor signs. This modified epilepsy classification will place clinically relevant outcomes at the forefront of randomized controlled trials.

The precision of seizure classification categories must be addressed. Utilizing precise language when describing seizure types is essential for localizing and managing epilepsy medically or surgically and facilitating communication to specific groups.2,3 Steriade et al.1 recommended avoiding the term “drop attacks,” noting that multiple seizure types produce falls. In contrast, the term “tonic-clonic” has a specific definition and does not refer to all seizures with motor activity.3 When classifying seizures, utilizing additional terms appended to standard categories in an extended classification, such as cognitive effects or automatisms, may render diagnosis more specific.3 Incorporating factors such as comorbidities, the changing demographics of epilepsy, brain age, genetic etiologies, and environmental triggers will provide further granularity.2,4

Additionally, existing and emerging technologies should be used to increase the granularity and utility of epilepsy classification. The first ILAE seizure classification was published in 1981 following the development of video electroencephalography (EEG).5 It was recommended to integrate complementary surrogate markers such as short- and long-term EEG data into seizure types with poor self-report reliability.1 EEG findings may be useful for all seizure types, rather than simply those with poor self-report reliability. Technologies likely to impact future classifications include 7-T magnetic resonance imaging, genome sequencing, and artificial intelligence.2

Additional factors are essential to consider. Epilepsy classification schema must be sufficiently flexible to allow clinically useful classification in a variety of social, political, economic, and cultural contexts in addition to the clinical trial settings proposed by Steriades et al.2,4 The classification must be helpful for a variety of stakeholders.1 Incorporating the epilepsy classification into a comprehensive team-based approach to clinical trials with the input of clinical and nonclinical stakeholders may enhance the clinical relevance of the outcomes under study.2,4 In aggregate, these modifications will increase the patient-centeredness of research and empower people with epilepsy.

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CONFLICT OF INTEREST
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REFERENCES
ANNOUNCEMENT

Epilepsia – May 2022 – Announcements

ILAE CONGRESSES

5 – 8 May 2022
2nd North American Epilepsy Congress
Virtual congress
www.ilae.org/naec2022

4 – 7 July 2022
XVI Workshop on Neurobiology of Epilepsy (WONOEP 2022)
Talloires, France
www.ilae.org/wonoep2022

35th International Epilepsy Congress
2 – 6 September 2023
Dublin, Ireland
www.ilae.org/iec2023

OTHER CONGRESSES

6 May 2022
4th Banff International Epilepsy Symposium
Virtual symposium
https://www.ilae.org/congresses/4th-banff-international-epilepsy-symposium

14 – 15 May 2022
ILAE British Branch Virtual 18th Specialist Registrar Epilepsy Teaching Weekend
Birmingham, UK
https://www.epilepsyteachingweekend.com/

21 May – 21 June
15th Latin American Summer School on Epilepsy (LASSE)
Virtual course
https://lasse.med.br/

27 – 28 May 2022
Neurophysiology, neuropsychology, and epilepsy in 2022: Hills we have climbed and hills ahead
Honoring Professors Jean Gotman and Marilyn Jones-Gotman
Montreal, Canada
17 – 20 June 2022
10th Migrating Course on Epilepsy
Lviv, Ukraine
https://www.ilae.org/congresses/10th-migrating-course-on-epilepsy

25 – 28 June 2022
8th Congress of the European Academy of Neurology (EAN)
Vienna, Austria

8 – 9 July 2022
Epilepsy Surgery Techniques Meeting (ESTM 2022)
Geneva, Switzerland
https://www.ilae.org/congresses/epilepsy-surgery-techniques-meeting

18 – 29 July 2022
2022 Advanced San Servolo Epilepsy Course. Bridging Basic with Clinical Epileptology - 7: Accelerating Translation in Epilepsy Research
San Servolo (Venice), Italy
https://www.ilae.org/congresses/2022-advanced-san-servolo-epilepsy-course

23 – 25 September 2022
Canadian League Against Epilepsy 2022 Scientific Meeting
Kelowna, BC, Canada
https://www.ilae.org/congresses/canadian-league-against-epilepsy-2022-scientific-meeting

28 – 30 September 2022
5th Swiss Federation of Clinical Neuro-Societies Congress
Basel, Switzerland

28 – 30 September 2022
Cleveland Clinic Epilepsy Update and Review Course
Ohio, USA & Virtual course
https://www.clevelandclinicmeded.com/live/courses/EpilepsyUpdate22/

12 – 14 October 2022
2022 ILAE British Branch Annual Scientific Meeting
Cardiff, UK
https://www ilaebritishconference.org.uk/

26 – 28 October 2022
Epilepsy Society of Australia 36th Annual Scientific Meeting
Adelaide, Australia

14 – 17 December 2022
12th World Congress for Neurorehabilitation
Vienna, Austria & Virtual congress
https://www.wfnr-congress.org/

2023
20 – 24 June 2023
15th European Paediatric Neurology Society Congress (EPNS): From genome and connectome to cure
Prague, Czech Republic
https://www.epns.info/epns-congress-2023/