

## **Report on the 13<sup>th</sup> European Board Exam for Young Neurologists. May-June 2021**

### *Preamble*

The European Board Exam for Young Neurologists is an initiative of the UEMS-Section of Neurology (also European Board of Neurology, EBN) in cooperation with the European Academy of Neurology (EAN). The first Exam was taken in 2009 under the supervision of professor Wolfgang Grisold.

The aim of this EBN-Exam is to add a contribution to setting European standards for the training of medical specialists in the field of neurology.

To date, there is still no legal status for European Board Exams but in many countries these exams are mandatory for completion of a specialist training.

The UEMS (Union Européenne des Médecins Spécialistes) supports the conferment of the title 'Fellow of the European Board' to those candidates who successfully passed the examination. This is why our successful candidates become Fellows of the European Board of Neurology (FEBN). Although the European Board of Neurology is tightly cooperating with the EAN, passing the board exam does *not* allow candidates to bear the title FEAN.

In 2016, the EBN-Exam was accredited by the UEMS-Examination Board (CESMA).

### *Preparing the EBN exam*

The EBN-Exam does not principally aim to test the ability of retrieval of knowledge but rather skills to use knowledge and to apply competencies. Therefore, the Exam is a mixture of written tests and oral examinations. The written parts consist of questions to be solved with the use of reference sources ('open book', about 70%) and questions to be answered without ('closed book', about 30%). For the preparation of the written Examination, we recommend a textbook and specific EAN-guidelines. Questions are provided by EAN-members according to the contents of the EBN-core curriculum (European training requirements) and reviewed by an EBN-committee.

For the oral examination, the candidate is asked to write an essay on public/global health or on ethics in the field of neurology. Furthermore, a scientific critical appraisal on a clinical topic and a clinical case presentation are required. The essay and the CAT workpieces should be prepared at home and sent in before the examination. The candidate may ask for help from the EBN-staff to achieve these tasks. All submissions are scanned for plagiarism, and candidates may be requested to revise their CAT and/or essay.

### **Rules for the oral European Board Exam Neurology 2021**

**In 2021, the oral exam took place on Friday, May 28 or Saturday, May 29 via ZOOM.** The European Board of Neurology (EBN) offered an online exam hosted by the European Academy of Neurology (EAN). This means that these exams were taken from the examinees' homes, on their own computers or laptops, and visual and audio streaming was used during the exams. The examination committee had established a series of standards to conduct the test and prevent fraud:

**1. The examinee had to use a computer (laptop/desktop) that met the requirements of the ZOOM software, and that was equipped with webcam and microphone.** The examinee was responsible for ensuring that they were able to open the programs that they need during the examination.

**2. The examinee's webcam and microphone were enabled at all times during the exam.** There were no exceptions to this rule, and disabling the camera or microphone would be considered fraud and invalidate the exam.

**3. Candidates verified their identity by using an acceptable identification (ID) at the start of the online exam.** Candidates were not permitted to participate in the exam if they did not bring an acceptable ID or if the first and last name on the ID did not exactly match the name on the registration.

3.1. The EBN considered an acceptable ID a government-issued document (passport or national/state/country identification card) recognized by the country in which the candidate was a citizen or permanent resident. As an alternative Candidates were allowed to use a government-issued driver's license, as long as their full name and photo remained clearly visible. Other documents/cards were considered unacceptable.

3.2. The first and last name of the candidate on the ID had to be written in Latin (Roman) script and exactly match the name used when registering for the EBN exam.

3.3. The ID had to be original and could not be presented on a cell phone or other electronic device. Photocopies were not acceptable as an ID.

3.4. An expired ID was not acceptable.

**4. The exam was carried out in a room with the following characteristics:**

4.1. The lighting in the room had to be bright enough to be considered "daylight" quality. Preference was given to overhead lighting. If that was not available, the light source was not allowed to be behind the student.

4.2. The student had to be alone in the room. The presence of other people inside the room through the webcam was suspected fraud and could invalidate the exam.

4.3. The room had to be as quiet as possible.

**5. The examinee agreed that the exam place could be explored using the computer camera at the request of the examiner at any time during the exam.**

**6. Use of other electronic devices, mobile phones, smart watches in the exam room was forbidden.**

6.1. The examinee was not allowed to use any headphones, ear buds, or any other type of listening equipment.

6.2. Any communication with external persons would have been considered fraud and led to cancelling the exam.

**7. The behavior during the exam had to follow the following basic rules:**

7.1. Examinees were not allowed to leave the examination room until the examination was finished. There were no exceptions to this rule and anyone who left the exam room would be excluded from it. Examinees were not allowed to go to the toilet during the online exam.

7.2. Examinees needed be dressed as if they were in a public place.

7.3. The Examinee's face, including the ears, had to stay in sight of the webcam at all times during the exam.

7.4. Disconnection of the Examination System due to network problems was considered fraud. The student had to ensure that their internet connection was adequate.

7.5. Examinees were not allowed to smoke, eat, or drink while taking the Exam.

The general time schedule was the following

- 5 minutes presentation of the public health or ethics essay
- 10 minutes discussion
- 5 minutes presentation of the critical appraisal of a topic (CAT)
- 10 minutes discussion
- 10 minutes presentation of the clinical case
- 10 minutes discussion

### **Rules for the written European Board Exam Neurology 2021**

The written examination took place prior to the seventh EAN congress on **June 18, 2021**, from the candidates' own desk in a reliable WIFI environment.

The written examination consisted of three sections.

#### **Section I**

40 Multiple Choice Questions (MCQs), closed book

**Login 09:15** - End ultimately 10:45 - Time available: 60 minutes

40 closed-book MCQs; candidates were asked to give the single best answer from 4-5 options. These questions were derived from the European Guidelines which could be found on the website. Furthermore, some 'general knowledge' questions were included. Candidates were allowed to use a dictionary to translate from English into their own language, but no other books and no further papers were permitted.

#### **Section II**

30 complex and mostly scenario-related MCQs, open book

**Login 11:15** - End ultimately 13:15 - Time available: 90 minutes

30 open book MCQs; candidates were asked to select the best answer from 4-5 options.

All types of paper evidence were allowed. No questions from the Guidelines were included, thus it was unnecessary to print these out. Most of these questions were multi-stage, i.e., a description of a clinical case was given, followed by questions on diagnostic or therapeutic topics.

### Section III

30 complex and scenario related questions, open book

**Login 13:45** – End ultimately 15:45 - Time available 90 minutes

### Survey

At the end of the 3<sup>rd</sup> section there was an electronic survey to be completed within 15 minutes.

### Candidates

There were 200 participants during last year's exam; participants from outside Europe took advantage of not having to travel. A total number of 187 candidates attended the exams.

	2019	2021		2019	2021
Austria	1	6	Bahrein	1	
Belgium	16	29	Egypt	4	18
Croatia		1	India	9	34
Denmark	4	3	Iraq	3	4
France	7	3	Jordan	1	1
Germany	6	11	Kuwait	1	
Greece	1		Lebanon	1	2
Iceland		1	Malaysia	1	3
Ireland	1	1	Malta		1
Italy	23	21	Oman	1	1
Lithuania	1		Pakistan		6
Poland		2	Qatar	1	2
Portugal	3	2	Saudi Arabia	9	11
Romania	2	1	Sri Lanka		1
Russia	1	1	Sudan		1
Slovenia	1		UAE		5
Spain	1	1	United States	2	3
Sweden	1	2	Zimbabwe		2
Switzerland		2			
Turkey	7	9			
United Kingdom	5	6			
	<hr/>	<hr/>		<hr/>	<hr/>
	75	106		34	94

### Exam results

#### Written exams:

The exam consisted of 40 closed-book EAN Guideline questions and 60 open-book general neurology questions (mainly based on clinical scenarios). 2 of these were eliminated because they had  $P_c < 0.25$

*(i.e. <40% of the candidates provided the right answer, guessing level 20%) whereas the question had a low RIT-value (i.e. does not discriminate between 'good candidates' and 'bad candidates').*

*The internal consistency of the exam was rather good (KR20=.89, >.70 is acceptable).*

*The 5 best candidates scored 90 and 91 out of 98 points. Their mean score (92) was considered the best obtainable score for passing limit.*

*The passing limit following the Cohen Method with assuming 55% real knowledge as marginal (with correction for guessing (about 20%) and considering the best obtainable score was set at 58 correct answers. A student with 58 correct answers got the mark 55 etc. Maximal 100 points.*

➔ *17 candidates failed the written exam.*

### **Oral exams:**

*The oral exams were scored by the examiners. They were calculated by taking the mean score of CAT, Essay, and Clinical Case, with the maximum obtainable score set to 100. Each of these 3 scores consisted of 1/3 global impression and 2/3 detailed scores. Fifty-five was the minimum score to pass (this is rather arbitrary). 18 candidates failed the oral exams.*

*5 candidates compensated their insufficient oral exam results with the written exam and 4 candidates compensated their insufficient written exam results with the oral exam.*

*Taking written and oral examination results together, 14/187 candidates (7%) failed the whole exam. Interestingly, compared to 2019 (11/95), we had better results in 2021.*

### **Conclusion**

The 13<sup>th</sup> Exam of the European Board of Neurology may be considered a multi-competency examination with reliable results and a favorable outcome for 93% of the candidates in 2021. The overall satisfaction amongst the candidates was good, but we could do better following some remarks of the candidates that definitely should be taken into account.

This EBN examination was a real success and offered the possibility of a new format to allow candidates who are not able to attend the EAN congress (and thus not completing our evaluation forms) to take part in our exam.

Please visit our website [www.uems-neuroboard.org](http://www.uems-neuroboard.org) for further information.