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# THE EUROPEAN BOARD EXAMINATION IN NEUROLOGY AS A MODEL FOR ESTABLISHING A NEUROLOGY RESIDENCY PROGRAM AT CENTRAL ASIAN UNIVERSITY, UZBEKISTAN

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## ABSTRACT

This study explores the establishment of a neurology residency program in Uzbekistan based on international standards, particularly the European Board of Neurology (EBN) requirements. The initial objective was to identify which neurologists participate in the EBN examination, assess their geographic and institutional backgrounds, and analyze whether the current postgraduate training structure in Uzbekistan qualifies candidates for this examination. Through open-source data review, it was found that while participation in the EBN examination is open globally, no neurologists from Uzbekistan have yet taken part. Examination of the national postgraduate education system revealed that the duration of neurology residency training in Uzbekistan does not meet the four-year minimum requirement set by the EBN. Consequently, the development of a new four-year neurology residency program at Central Asian University was proposed, aligning with both European and North American standards.

**Keywords:** Neurology residency, European Board of Neurology, postgraduate medical education, Uzbekistan, international standards.

## ANNOTATSIYA

Ushbu tadqiqot O‘zbekistonda xalqaro standartlarga, xususan, Yevropa Nevrologiya Kengashi (EBN) talablariga asoslangan nevrologiya yo‘nalishi bo‘yicha rezidentura dasturini yaratish masalasini o‘rganadi. Tadqiqotning dastlabki maqsadi EBN imtihonida ishtirok etuvchi nevrologlarni aniqlash, ularning geografik va institutlarga mansubligini baholash hamda O‘zbekistondagi amaldagi magistratura va rezidentura tizimi ushbu imtihon talablariga javob beradimi, degan savolni tahlil qilishdan iborat edi. Ochiq manbalar tahlili shuni ko‘rsatdiki, EBN imtihonida qatnashish butun dunyo bo‘yicha ochiq bo‘lishiga qaramay, hozircha O‘zbekistondan biror nevrolog unda ishtirok etmagan. Mamlakatdagi tibbiy ta’lim tizimi tahlili natijasida aniqlanishicha, O‘zbekistonda nevrologiya yo‘nalishidagi rezidentura muddati EBN tomonidan belgilangan kamida to‘rt yillik talabga javob bermaydi. Shu sababli, Central Asian Universitetida Yevropa va Shimoliy Amerika standartlariga mos yangi to‘rt yillik nevrologiya rezidentura dasturini ishlab chiqish taklif etildi.

## АННОТАЦИЯ

В данном исследовании рассматривается создание программы ординатуры по неврологии в Узбекистане на основе международных стандартов, в частности требований Европейского совета по неврологии (EBN). Первоначальной целью было определить, какие неврологи принимают участие в экзамене EBN, оценить их географическое и институциональное распределение, а также проанализировать, соответствует ли текущая структура последипломного образования в Узбекистане требованиям, предъявляемым к кандидатам на данный экзамен. В результате анализа открытых источников установлено, что, несмотря на глобальную доступность экзамена EBN, ни один невролог из Узбекистана пока не принимал в нём участие. Изучение национальной

системы последипломного образования показало, что продолжительность ординатуры по неврологии в Узбекистане не соответствует минимальному четырёхлетнему требованию, установленному EBN. В связи с этим предложено разработать новую четырёхлетнюю программу ординатуры по неврологии в Central Asian University, соответствующую как европейским, так и североамериканским стандартам.

## Introduction

Postgraduate medical education plays a central role in ensuring the competence of medical professionals worldwide. The European Board of Neurology (EBN) offers a standardized qualification process that allows neurologists from any country to obtain European certification, reflecting high educational and clinical standards.

The initial motivation for this study was to identify the neurologists who have taken the EBN examination and to understand the participation trends among European and non-European countries. This investigation aimed to determine whether neurologists from Uzbekistan had ever participated in the examination, and if not, to understand the possible reasons for this absence.

## Objective

The primary objective of this research was to determine the presence and participation level of neurologists from Uzbekistan in the European Board of Neurology examination, and to assess whether the current neurology postgraduate training structure in Uzbekistan fulfills the EBN eligibility criteria.

## Methods

An open-source data review was conducted using publicly available records of the European Board of Neurology examinations. The dataset included the number of participants by country and year, from 2009 to 2025. Additional data were reviewed to identify participation from low- and middle-income countries (LMICs).

Information on Uzbekistan's current postgraduate medical education system, particularly neurology residency training, was obtained from publicly available governmental and institutional sources. The analysis focused on the duration and structural requirements of national training programs compared with the EBN criteria.

Figures (Figure 1, Figure 2) are placed in Results and described in text. No primary human subjects research was conducted; ethical approval not required for document/data synthesis.

## Results

Between 2009 and 2025, the total number of candidates taking the EBN examination steadily increased. Participation included neurologists from both European Union (EU) and non-EU countries, demonstrating that eligibility extends beyond Europe. Candidates from low- and middle-income countries such as India, Egypt, and Pakistan were also represented, confirming that the examination is accessible globally and not limited to high-income nations.

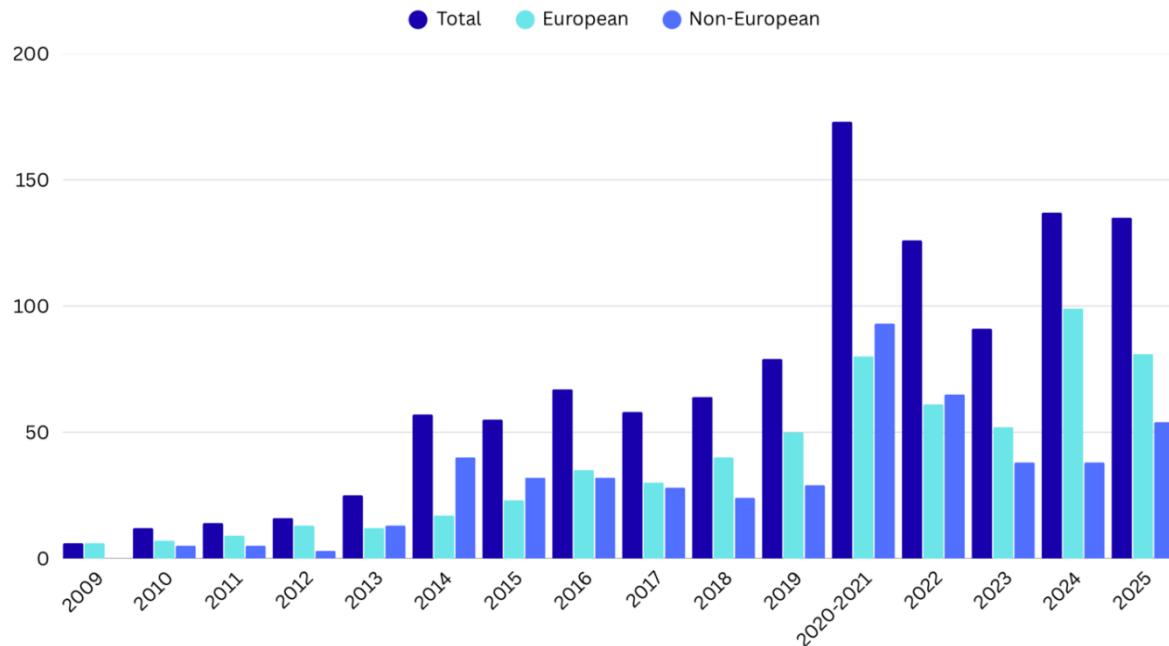
However, analysis revealed that no neurologists from Uzbekistan have participated in the European Board of Neurology examination to date. Upon reviewing national regulations, it was identified that the duration of postgraduate training in neurology in Uzbekistan is shorter than the four-year minimum required by the EBN. This fundamental difference prevents neurologists trained in Uzbekistan from qualifying for the European examination.

## EBN participation trends (2009-2025) Figure 1

Figure 1. Annual participation in the European Board Examination in Neurology (2009-2025), by European vs. non-European candidates.

Data summary: total candidates rose from 6 in

counts grew substantially in some years (e.g., 93 non-European in 2020-2021; 65 in 2022). The trend demonstrates widening global engagement with the EBN.



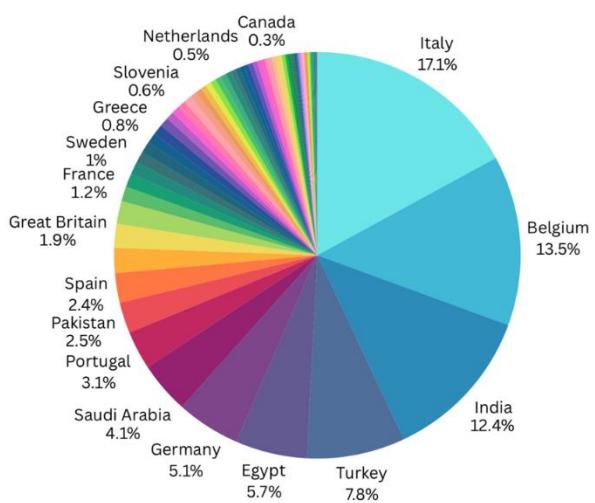
2009 to 135 in 2025. Non-European candidate

## Country distribution (2010-2025) Figure 2

Figure 2. Country distribution of EBN candidates (aggregate 2009-2025).

Top contributor countries include Italy (188), Belgium (149), India (137), Turkey (86), Egypt

(63), and Germany (56), with an extended list reaching >70 countries (see Chart 2). Uzbekistan shows no representation in historical candidate lists.



## Discussion

The findings highlight a structural gap between Uzbekistan's postgraduate medical education

system and the standards established by international boards such as the EBN. Although the EBN examination allows participation from all

countries, including low- and middle-income regions, the training requirements, particularly the four-year minimum residency duration, are a key eligibility factor.

Recognizing this gap, Central Asian University (CAU) initiated the development of a neurology residency program structured in accordance with EBN standards. Furthermore, CAU's existing academic collaboration with the Cleveland Clinic in the United States provided an additional benchmark, as the Cleveland Clinic's neurology residency program also spans four years. Thus, the proposed CAU program aligns simultaneously with both European and North American standards.

### Conclusion

The absence of neurologists from Uzbekistan among participants of the European Board of Neurology examination reflects systemic limitations in national postgraduate training requirements rather than lack of interest or capacity.

The introduction of a new four-year neurology residency program at Central Asian University marks a crucial step toward aligning Uzbekistan's medical education system with global standards. This alignment not only enables future participation in the EBN examination but also promotes the advancement of neurology education and practice in Uzbekistan.

### FIGURE CAPTIONS

Figure 1. Annual participation in the European Board Examination in Neurology (2009-2025). Data show yearly totals and split between European and non-European candidates (source: supplied Chart 1 dataset).

Figure 2. Country distribution of EBN candidates (aggregate 2009-2025). Top contributing countries listed; Uzbekistan shows no entries in supplied dataset (source: supplied Chart 2 dataset).

### References

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