

National Board of Examinations

New Delhi

Dated: 13-02-2019

NOTICE

Introduction of FNB NEUROVASCULAR INTERVENTION Programme

Attention: All Hospitals/Institutes/Medical Colleges desirous of seeking accreditation with NBE

NBE grants accreditation to institutions/hospitals in public and private sector all over the country for the purpose of training of candidates in various specialties and disciplines of modern medicine.

2. Considering the emerging need to increase the pool of competent and skilled specialists and sub specialists so as to cater to the healthcare needs of the society and community at large, National Board of Examinations administers Post-Doctoral Fellowship programme in 22 disciplines.
3. NBE invites *online* applications from eligible departments / institutions for a *2-year Post-Doctoral FNB Programme* in **Neurovascular Intervention**. Interested institutions/hospitals/medical colleges which fulfill the criteria as laid down for this programme by NBE can apply for fresh accreditation.
4. Details of the minimum accreditation criteria are available on NBE website www.natboard.edu.in under quick link "**Accreditation Online**".
5. Indicative Outline and requirements specific to aforesaid programme are as under:

Aims & Objectives of the Programme

PROGRAMME AIMS:

The goal of the training program is to produce Neurointerventionists with the knowledge, skill and attitude to diagnose and manage a wide range of clinical problems related to stroke, neurovascular diseases and Neurointervention.

The training includes:

- Knowledge and skills of the emergency aspects of stroke and neurovascular diseases.
- Competence in life saving emergency interventions and appropriate use of various diagnostic tests, and interpretation of their results.
- Competence in assessment, planning and executing treatments for various vascular lesions in brain & spine
- Keep updated with recent advances in the field of stroke and neurointervention.

ESSENTIALS OF TRAINING:

Neurointerventionists should have the skills to diagnose neurovascular disorders based on synthesizing information from clinical examination, investigations and imaging studies. They should be able to formulate a treatment strategy, communicate it effectively to the patient including possible complications and execute the treatment.

Specific objective are as follows:

- Recognize signs and symptoms of disorders amenable to diagnosis and treatment by Neuro Intervention techniques.
- Perform basic neurological examinations to evaluate patients with these neurological disorders.
- Understand the fundamentals of imaging, radiation physics and radiation biology.
- Understand the pathophysiology and natural history of these disorders.
- Know the indications and contraindications to Neuro Intervention procedures.
- Be conversant with the clinical and technical aspects of Neuro Interventions procedures.
- Accurately report diagnostic and follow – up Digital Subtraction Angiograms as well as Neuro Interventional procedures.
- Discuss medical and surgical alternatives.
- Be proficient in pre and post procedure management of Neuro Interventional patients.
- Handle neurointensive care management in consultation with neuro Intensivist.
- Know how to prevent, recognize and manage complications associated with these Neuro Interventional procedures.

	<ul style="list-style-type: none"> Integrate information available from imaging studies, pertains to the neurovascular practice. Communicate effectively with doctor, patient and family.
Nature of the Programme	Post-Doctoral Fellowship programme (FNB)
Nomenclature of the Programme	FNB in Neurovascular Intervention
Programme duration	2 years
Minimum Accreditation Criteria	<p>A. The applicant hospital:</p> <p>The extant NBE norms shall be applicable for total beds in the applicant hospital. All categories of hospitals as per extant norms shall be eligible to seek accreditation with NBE provided that there is a dedicated division of “Neurovascular Interventions” in the applicant hospital with minimum provisions as detailed below.</p> <p>The applicant hospital should have an in-house Neurology, Neurosurgery and Neuroradiology set up.</p> <p>B. The applicant department</p> <p>Fellowship programme being sub-specialty skill-based programme, wherein requirement of beds & patient load is part & parcel of main clinical department. The hospital should have minimum beds in parent super-specialty department (Neurology/Neurosurgery) with minimum sub-specialty case load & spectrum of diagnosis as detailed below.</p> <p>The department should have <i>Neurovascular Intervention facilities</i> having following equipment:</p> <ul style="list-style-type: none"> <i>Cath lab with Digital Subtraction Angiography (Single or Bi-plane) with roadmap</i> <i>Multi-slice CT</i> <i>At least 1.5 T MRI</i> <i>USG with Colour Doppler</i> <i>Sophisticated Anaesthesia module with monitoring</i> <p>C. Faculty</p>

The applicant department should have at least 02 full time consultants. One of them should be a *Senior Consultant* whereas the other consultant may be a *Junior Consultant* as defined below.

a. Senior Consultant: Qualification & Experience

Should have a minimum of 5 years of exclusive experience in neurovascular interventions after qualifying MCh/DNB/DM or equivalent post-doctoral qualification in either Neurosurgery or Neurology or Neuroradiology; Alternatively, should have a minimum of 10 years of exclusive experience in the area of neurovascular interventions after qualifying MD/DNB or equivalent in the specialty of Radio diagnosis

Exclusive experience in the area of Neurovascular Interventions should be supported with work experience certificates.

b. Junior Consultant: Qualification & Experience

Should have a minimum of 2 years of exclusive experience in neurovascular interventions after qualifying MCh/DNB/DM or equivalent post-doctoral qualification in either Neurosurgery or Neurology or Neuroradiology; Alternatively, should have a minimum of 5 years of exclusive experience in the area of neurovascular interventions after qualifying MD/DNB or equivalent in the specialty of Radio diagnosis

Exclusive experience in the area of Neurovascular Interventions should be supported with work experience certificates.

c. Senior Residents

02 Senior Residents are *desirable* in the department. They must possess recognized Degree qualification in the specialty of General Medicine or General Surgery or Radiology. The degree should not have been awarded more than 60 months earlier from the date of filing the application. Those possessing MCh/DNB/DM qualification in Neurosurgery or Neurology or Neuroradiology shall qualify to be considered as senior residents in the department till they become eligible to qualify as Junior Consultants i.e. upto 2 years post MCh/DNB/DM.

Sr. Residents pursuing any academic programme in the department (DNB Super Specialty/DM/MCh/Fellowship/any other) after qualifying PG Degree qualification shall be considered as Academic Sr. Resident. Those who are not pursuing any such academic programme shall be considered as Non-Academic Senior Residents.

D. Patient Load

The applicant department should attend the minimum required patient load for the programme as under:

- a. *At least 100 Diagnostic Cerebral and Spinal Angiograms per annum*
- b. *At least 50 Therapeutic Neurovascular Interventions per annum including the following:*
 - i. *Cerebral Thrombolysis – Arterial & Venous*
 - ii. *Internal Carotid & External Carotid Angioplasty & Stenting*
 - iii. *Endovascular treatment of brain & spine Aneurysm*
 - iv. *Endovascular treatment of AVM, Dural fistulas and other malformations of brain & spine*
 - v. *Balloon test occlusion*
 - vi. *Pre-Op embolization*
 - vii. *Inferior Petrous sinus sampling*
 - viii. *Percutaneous embolization*

E. Rotational Posting of trainees during the course of training

The requirement of rotational posting is candidate specific depending upon the area of qualification he/she is coming from.

Area of Posting	Background qualification of FNB trainee		
	Neuroradiology	Neurosurgery	Neurology
Neuroimaging	Not Applicable	01 Month	2 weeks
Neurosurgery OT	2 weeks	Not Applicable	2 weeks
Neurology	2 weeks	2 weeks	Not Applicable
Neuro ICU	2 weeks	Not Applicable	Not Applicable

	<table border="1" data-bbox="558 190 1460 414"> <tr> <td data-bbox="558 190 813 414"><i>Other Recognized Centre for Neurovascular Interventions</i></td> <td data-bbox="813 190 1460 414">01 Month</td> </tr> </table> <p>F. Research Work/Thesis FNB Neurovascular Intervention trainees shall be required to publish at least 2 research papers in peer reviewed journals or present them.</p> <p>G. Training record The record of training shall be required to be maintained as a Log book prescribed by NBE.</p>	<i>Other Recognized Centre for Neurovascular Interventions</i>	01 Month
<i>Other Recognized Centre for Neurovascular Interventions</i>	01 Month		
<p>Entry and Exit Criteria for Candidates</p>	<p>Candidates in possession of recognized DM/DNB Neurology, MCh/DNB Neurosurgery and DM Neuroradiology qualification shall be eligible for this fellowship course. Entrance and Exit examination shall be as per applicable NBE norms for NBE Fellowship (FNB) courses.</p>		

6. For details of minimum accreditation criteria, application process and cut-off date to submit applications for year 2019, please refer to the 2019 Information Bulletin for seeking accreditation with NBE available on NBE website under quick link:

https://accr.natboard.edu.in/online_user/frontpage.php

7. For Any further clarification/assistance, please write to NBE at e-mail ID accr@natboard.edu.in

NBE.