

**NATIONAL INSTITUTE OF CARDIOVASCULAR DISEASES,
RAFIQUI (H.J) SHAHEED ROAD, KARACHI**

DIPLOMA IN CARDIOLOGY PROSPECTUS

INTRODUCTION:

Emerging from the small Central Heart Clinic in Ward 10 of Jinnah Postgraduate Medical Centre (JPMC) in 1956, National Institute of Cardiovascular Diseases has been the primary heart-care provider for Pakistanis for over 50 years. Since its inception in 1963, the National Institute of Cardiovascular Diseases (NICVD) has played a pivotal role in caring for patients with heart disease in Pakistan. NICVD is the first tertiary cardiac care institute in South Asia as well as the flagship facility for cardiology in Pakistan with a focus on superior care for patients, education and training for medical professionals, and research and development in cardiology.

NICVD caters to the cardiovascular needs of a vast majority of patients from all provinces of Pakistan and patients from other neighboring countries. It is responsible for training the bulk of local cardiac physicians, nurses and paramedics throughout the country. It is 500 bedded hospital. Its clinical services include adult cardiology, pediatric cardiology, interventional cardiology, cardiac surgery and arrhythmia services. Its facilities include echocardiography, cardiac catheterization (with Primary PCI facility), nuclear cardiology, cardiac electrophysiology, pacing and stress testing. Institute has also started evening OPD for private patients.

The present Governing Body of NICVD comes under the Government of Sindh with the Honorable Chief Minister of Sindh as the Chairman of the Board of Governors. The Executive Director of NICVD maintains the role of Secretary of the Board of Governors and Chief Executive Officer of the Institute and Chairman of the Academic Faculty.

NICVD has the honor of training cardiologists since its inception with its diploma in cardiology being the first of its kind in the country. These diploma holders are providing cardiac care to patients throughout Pakistan. After the inception of fellowship in cardiology program the diploma program was put on hold. However with time the need for additional manpower to provide quality cardiac care became more evident. NICVD has restarted its two year diploma program in addition to the fellowship training. Dow University of Health Sciences (DUHS) and NICVD has collaborated on this program with the NICVD Diploma in Cardiology being issued by the Dow University of Health Sciences.

MISSION STATEMENT

We aspire to be one of the world's leading heart care facilities by:-

- *Adopting a patient-focused approach that is respectful and sensitive to patient needs and values*
- *Acting on the 'time is muscle' principle to ensure prompt diagnosis and treatment to save and reduce heart damage*
- *Providing convenient access to those with financial constraints to prevent and treat heart related diseases without delay*
- *Educating the finest medical professionals of tomorrow in the field of cardiology*
- *Promoting a research-oriented environment to keep abreast with latest updates in cardiology*

VISION:

We strive to keep every heart close to ours...

We aim to be the premier hospital in Pakistan for the prevention, diagnosis, treatment and rehabilitation of patients with cardiovascular diseases regardless of their socioeconomic status. Through our mission to deliver excellent patient care free of cost and commitment to training, research and development in cardiology, we strive to be the hospital of choice for both cardiovascular disease patients and medical professionals.

OBJECTIVE OF THE CARDIOLOGY PROGRAM:

The program aims to train physicians who will be able to provide the usual cardiac and emergency care to outpatients as well as inpatients in peripheral hospitals and in primary care clinics.

At the end of the 2 year program the trainee will be:-

- *Able to recognize common cardiac conditions.*
- *Able to appropriately manage common cardiac conditions including cardiac emergencies*
- *Able to identify patients that need to be referred for further diagnostic workup or management.*
- *Familiar with invasive and non invasive cardiac procedures.*

LEARNING OUTCOMES RELATING TO:

COGNITION:

The learning outcomes will all be at the application level since that is the gold standard. Therefore, the candidate will be able to:

- *Understand principles of Cardiology.*
- *Relate how body function gets altered in diseased states*
- *Request and justify investigations and plan management for Cardiac disorders*
- *Assess new medical knowledge and apply it to their setting*

WRITTEN COMMUNICATION SKILLS:

The candidates will be able to:

- *Correctly write updated medical records, which are clear, concise and accurate.*
- *Write clear management plans, discharge summaries and competent letters for outpatients after referral from a general practitioner.*
- *Demonstrate competence in academic writing*

VERBAL COMMUNICATION SKILLS:

The candidates will be able to:

- *Establish professional relationships with patients and their relatives or caregivers in order to obtain a history, conduct a physical examination and provide appropriate management.*
- *Demonstrate usage of appropriate language in seminars, bedside sessions outpatients and other work situations*
- *Demonstrate the ability to communicate clearly, considerately and sensitively with patients, relatives, other health professionals and the public.*
- *Demonstrate competence in presentation skills.*

EXAMINATION SKILLS:

The candidates will be able to:

- *Perform an accurate physical examination in medical and other complex health problems.*
- *Interpret physical signs after physical examination so as to formulate further management.*

PATIENT MANAGEMENT SKILLS:

The candidates will be able to:

- *Interpret and integrate the history and examinations findings and arrive at an appropriate differential diagnosis and diagnosis.*
- *Demonstrate competence in problem identification, analysis and management of the problem at hand by the use of appropriate resources, interpretation of lab results.*
- *Apply the knowledge of the therapeutic interventions used in the field of cardiology for patient management.*
- *Prioritize different problems within a time frame.*

SKILLS IN RESEARCH:

The candidates will be able to:

- *Use evidence based medicine and evidence based guidelines*
- *Conduct research individually by using appropriate research methodology and statistical methods.*
- *Correctly guide others in conducting research by advising about study designs, research methodology and statistical methods that are applicable.*
- *Interpret and use results of various research articles.*

ATTITUDES TOWARDS PATIENTS:

The candidates will be able to:

- *Establish a positive relationship with all patients in order to ease illness and suffering.*
- *Facilitate the transfer of information important to the management and prevention of disease management of a patient.*
- *Demonstrate awareness of bio-psycho-social factors in the assessment and management of a patient*
- *Consistently show consideration of the interests of the patient and the community as paramount with these interests never subservient to one's own personal or professional interest.*

TOWARDS SELF DEVELOPMENT:

The candidate will be able to:

- *Demonstrate, consistently, respect for every human being irrespective of ethnic background, culture, socioeconomic status and religion*
- *Deal with patients in a non-discriminatory and prejudice-free manner*
- *Deal with patients with honesty and compassion*
- *Demonstrate flexibility and willingness to adjust appropriately to changing circumstances*
- *Foster the habit and principle of self-education and reflection in order to constantly update and refresh knowledge and skills and as a commitment to continuing education.*
- *Recognize stress in self and others*
- *Deal with stress and support medical colleagues and allied health workers.*
- *Handle complaints including self-criticism or criticism by colleagues or patients*
- *Understand the importance of obtaining and valuing a second opinion.*

TOWARDS SOCIETY:

The candidate will be able to:

- *Understand the social and governmental aspects of health care provision.*
- *Offer professional services while keeping the cost effectiveness of individual forms of care.*
- *Apply an understanding of hospital and community-based resources available for patients and care givers in underserved areas.*

ADMISSION CRITERIA:

Admission to the course will be strictly on open merit, on the basis of Entrance Test and Interview. Both will be conducted in NICVD, Karachi. Government employees will need to get clearance or NOC from their appropriate department if admitted in the program.

The candidates who will meet the requirements below will be allowed to sit in the entrance test.

- 1. M.B.B.S.*
- 2. One year house job (Recognized by Pakistan Medical and Dental Council, (PMDC*
- 3. Preferable One year post house job experience*

ENTRANCE TEST:

The Entrance test will be conducted in NICVD, Karachi. Applications will be scrutinized for eligibility criteria, (mentioned above).

The entrance test will be a multiple choice exam and based mostly on clinical case scenarios. Content will focus mostly on common medical conditions including their diagnosis and management. Some questions on basic sciences will also be included. Candidates should know how to identify and manage common cardiology and medicine cases. There is no prescribed text but candidates can review final year medicine text books and multiple choice questions. There will be No Negative Marking.

Any suspicion of unscrupulous behavior may result in candidates test being cancelled and may be reported to the PMDC. It will be the candidate's responsibility to ensure that their behavior does not appear suspicious.

If more than one candidate has similar marks in the entrance test, merit list will be decided on marks obtained in the final year MBBS exam.

INTERVIEW:

After successful qualification in Entrance Test, qualified candidates will need to appear in Interview for the final selection in Diploma in Cardiology Program. Interviews will be conducted for evaluating the level of maturity, academic aptitude, motivation, interpersonal skills and career focus of the qualified candidates. Candidates will also need to show the originals of all documents submitted.

SELECTED CANDIDATES:

The list of selected candidates will be displayed on NICVD notice board and they will be informed by phone and post.

Selected candidates for the admission will be required to complete all admission formalities by the specified duration, failing which their offer of admission will stand cancelled and vacant seat will be filled by the next candidate in the waiting list, according to merit.

ACADEMIC EVALUATIONS AND EXAMS:

- *All candidates will be evaluated on their overall clinical and professional performance on a monthly basis by their rotation supervisor.*
- *An unsatisfactory report will lead to the candidate being counseled by a faculty committee. Candidates who continue to have a poor performance may be asked to remove themselves from the program.*
- *This is two year Diploma training program consisted of two annual examinations. Each annual exam will be conducted every year, based on the curriculum given to candidates by Dow University of Health Sciences, Karachi.*
- *Lectures according to the course curriculum will be scheduled during the period and these will be mandatory to attend.*
- *There will be a comprehensive exit exam as well which will be based on the 2 year curriculum and will include BCQs, short or long cases and viva or any other tool, felt appropriate.*
- *Passing every examination will be obligatory to sit in comprehensive exit exam.*
- *Minimum passing marks to be obtained in examination will be 63%.*
- *All examinations(annual/comprehensive exit exam) will be conducted by Dow University of Health Sciences, Karachi and according to Dow university policies.*

DURATION OF COURSE / TIMINGS / VACATIONS:

This will be a 2 year course with 24 monthly clinical rotations. All rotations will be at NICVD, Karachi. Schedule of your duties and timings will be provided.

Leave will be as per rules for post graduate trainees, at NICVD, Karachi.

FEES AND STIPEND:

- *Trainees will be provided stipend during training as per NICVD rules.*
- *There will be a Rs.25,000/- (Rupees Twenty Five Thousand Only) admission fee at time of start of training (non-refundable).*
- *There will be Enrollment fee (non-refundable) according to Dow University of Health Sciences policies.*
- *There will be annual exam fee and final exit exam fee according to Dow University of Health Sciences, Karachi policies. (Not refundable)*

DISCIPLINE AND RESPONSIBILITIES:

- *Candidates are expected to demonstrate professional responsibility, ethical behavior duty bound and developed good doctor patient relationship.*
- *Unprofessional or unethical behavior will be reported to a disciplinary committee and may result in termination of training.*
- *Trainees are not allowed to work outside the institution during training.*
- *Institute has right to cancel or terminate the training of a candidate if he/she is found contravene of rules and regulations.*
- *Candidate will need to abide by all rules and regulation enforced at NICVD, Karachi at present or those which may be enforced at any time in future.*
- *Candidate will also need to abide by all the rules and regulations and policies of Dow University of Health Sciences, Karachi, regarding his/her training program.*

TEACHING SESSIONS:

This will be highly interactive, students presenting their cases and given presentation on important topics.

- 1. Ward teaching session as per ward schedule.*
- 2. Need to attend all teaching sessions in the institute.*
- 3. Diploma in Cardiology course lectures according to curriculum.*
- 4. Daily Morning Meetings, Noon conferences & Morbidity & Mortality Meetings.*

CURRICULUM:

S. No	Subject	Percentage
1.	<i>Coronary Artery Disease</i>	20
2.	<i>Valvular Heart Disease</i>	15
3.	<i>Congenital Heart Disease</i>	10
4.	<i>Arrhythmias</i>	10
5.	<i>Heart Failure</i>	10
6.	<i>Hypertension</i>	05
7.	<i>Non Cardiac Disease in Cardiac Patients</i>	05
8.	<i>Cardiac Diagnostics</i>	10
9.	<i>Miscellaneous</i>	10
10.	<i>Anatomy and Physiology</i>	05
Total		100

FOR CONTACT AND DETAILS:

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