# Krishna Vishwa Vidyapeeth

# (Deemed to be University), Karad

# Curriculum for Fellowship in

# **Cardiovascular Anaesthesia**

# **Duration 1 year**

# GOALS

• To provide an intense, structured training program for post MD/DNB (Anesthesia) candidates, to enhance quality of anesthetic management in cardiovascular science.

# OBJECTIVES

The objectives of the clinical training are:

- 1. To function as an independent faculty/consultant in the specialty of cardiac anesthesiology.
- 2. To carry out and help in conducting applied research in the field of cardiac anesthesiology.
- 3. To plan and set-up independent cardiac anesthesia unit catering to cardiothoracic vascular surgery and intensive cardiac care and cardiac catherization laboratory.
- 4. To perform a comprehensive Perioperative Trans Esophageal Echocardiography (TEE) and Transthoracic Echocardiography (TTE) in the setting of Cardiac Surgery.

# ELIGIBILITY:

Post MD/DNB in Anesthesiology from a university recognized by NMC or equivalent degree.

### **METHODS OF TRAINING:**

The candidates undergo a residency programme, as senior resident in managing surgeries at department of Cardiovascular Thoracic Surgery, Cath Lab procedures and Intensive care monitoring cardiac patients for a period of one year. The day-to-day work of the trainees will be supervised by the consultant of the department of cardiac anaesthesiology. The posting is so designed that the trainee gets posted in various areas of the department like operation theatre, postoperative ICU, Intensive coronary care unit, cath. Lab, echo room. He or she will be learning invasive cardiology diagnostic procedures therapeutic procedure done in Cath lab and emergency services. Along with the programme for invasive hemodynamic monitoring demonstrations, seminars, workshops, and journal clubs will be organized. Depending on the feasibility the candidate will be posted for 1 month at a tertiary centre where paediatric cardiac surgical work/ advanced cardiac surgical work is routinely done.

### SYLLABUS:

 Anatomy & Physiology of Cardiovascular System, coronary circulation, Ischemic heart disease, & Anesthetic Management.

- 2. Pharmacology of IV, Inhalation agents Pharmacology of antiarrhythmics, anti-failure & antianginal drugs.
- 3. Pre-operative assessment and evaluation of cardiac patients, intra-operative monitoring, blood transfusion conservation of blood, coagulation monitoring.
- 4. Pathophysiology of Congenital Heart Disease (CHD) & Anesthetic management of Pediatric Cardiac Surgery.
- 5. Pathophysiology of cardiac valve lesions & Anesthetic management.
- 6. Cardiopulmonary Bypass, CNS monitoring, PFT, acid base balance, post-operative care, ventilatory care, psychiatric care.
- 7. Monitoring in anesthesia both invasive and noninvasive techniques in the perioperative period during cardiothoracic surgeries and interventions.
- 8. Infections, AIDS, anti-biotics & Nutrition.
- 9. Renal failure, ARDS, Multi Organ Failure, immunology
- 10. Cardiac Catheterization, pacing and other procedures.
- 11. Echocardiography TTE, TEE, MRI, PET.
- 12. Heart failure, transplantation, ethical & legal aspects.
- 13. BCLS, ACLS critical care.

### Training includes:

- 1. Weekly Seminars/Journal club
- 2. Monthly lectures by faculty
- 3. Seminars, Interdepartmental seminar twice in a month
- 4. Discussions, case presentation twice in a month
- 5. One publication or two representations at State/National level.
- 6. Internal assessment every six months
- 7. Final certifying examinations (Theory, clinical & Practical)
- 8. Teaching of Anaesthesiology P.G students by the DM student is part of the training.
- 9. Every candidate shall maintain a Logbook/work dairy and record his/her participation in the training programs conducted by the department such as journal reviews, seminars, etc. The Logbook shall be scrutinized and certified by the Head of the Department and Head of the Institution and presented in the University and during practical/clinical examination.

#### **Project work**

One research publication in mandatory during the course tenure.

# Assessment:

- Theory examination (100 marks)
- Practical Examination (100 marks): Long case structured assessment, Short case structured assessment
- Oral structured viva voce examination
- Logbook

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Duration of the Program : 1 year

Tuition Fee of the Program : USD 2000

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