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King George's Medical University U.P.
Department Of Cardiology
Lucknow - 226003 (India)

Ref. 2421/Caro/21

Date. 28/10/2021

To,

Prof. Uma Singh
Dean – Academics
Faculty of Medicine
K.G.'s Medical University
Lucknow



Dear Prof. Uma Singh,

Kindly take the reference of your letter no. Dean-Academics / KGMU / 2021 dated 21.10.21 regarding detailed curriculum of all courses run by department.

In this regards, I am submitting Curriculum of "Post DM Fellowship (PDF) in Interventional Cardiology – Course Curriculum" for your kind information and necessary action. (copy enclosed)

Thanking you.

Yours Sincerely

Dr. S.R. Dwivedi
Professor & Head

Encl : As above

1st Year Post DM Fellowship (PDF) in Interventional Cardiology-Course Curriculum

1. **Name of Felloeship** – Post DM fellowship (PDF) in interventional cardiology

2. **Number of posts** – Two

3. **Duration**- 1 year.

4. **Goals & Objective:-**

1. To facilitate learning of advance interventional Cardiology Technique
2. To facilitated ability to independently operate technically challenging lead
3. To facilitated ability to anticipate and recognized procedure related complications

5. (A) **Training includes:-**

1. Morning seminars/journal club
2. Conference presentation / Symposium
3. Clinical discussion / Case presentations
4. Lectures / Exposure to cath lab
5. Routine work and duties of hospital
6. Training in all aspects of interventional cardiology

(B) **Theoretical Curriculum:-**

1. Cath lab basics
 - a. Radiation principles and cath lab equipment
 - b. Patient Radiation Management
 - c. Percutaneous Intervention Techniques: The Basics on guiding Catheter, Balloon and Wire Selection
 - d. Femoral rtery Access and Closure Techniques
 - e. Contrast Media and Contrast Nephropathy
 - f. Radial Access & Diagnostic Catheter Selection for Transradial Coronary Angiography
 - g. Right Heart Catheterization

2. Pharmacology in cath lab:-
 - a. Antithrombotic & Antiplatelets
 - b. Vasodilators & Vasopressors
 - c. Emergency drugs

3. Coronary Stenting:-
 - a. Balloon Angioplasty
 - b. Coronary Stenting: Basics
 - c. Coronary Stenting Bare Metal Stenting & Clinical Data
 - d. Drug eluting Stents-
 1. Sirolimus-Eluting Stent: A Comprehensive Overview
 2. Paclitaxel-Eluting TAXUS Stents: Current outcomes and Future Directions
 3. Third generation DES-
 4. Drug Eluting Stent Comparison
 - e. Stent Thrombosis: Incidence, Timing, Outcome, Optimizing Pharmacology

4. Acute Myocardial infarction & thrombosis:-
 - a. Patho physiology and assessment of STEMI
 - b. Primary PCI, Triage and Transfer for STEMI
 - c. Management of ST-Segment Elevation Myocardial infarction
 - d. Pharmacoinvasive and rescue PCI for STEMI
 - e. Thrombectomy in STEMI
 - f. Management of cardiogenic shock in STEMI

5. Intracoronary imaging and physiology:-
 - a. Fundamentals of Coronary Pressure and flow Derivation of FFR
 - b. Technique, pitfalls and Artifacts of FFR
 - c. Fundamentals of intravascular Ultrasound Imaging
 - d. Technique, Artifacts, Image Interpretation
 - e. Clinical Applications of FFR & IVUS
 - f. Appropriate Use Criteria and the Use of FFR and IVUS

6. Patient and Lesion Specific approach:-
 - a. Patient and Lesion Specific PCI Considerations
 - b. Saphenous Vein and Arterial Graft Interventions
 - c. Approach in the treatment of bifurcation
 - d. Approach and outcomes in LM PCI
 - e. Techniques and tools for tortuosity and calcification guideliner, debulking, buddy wire etc

7. Valvular, structural & Congenital heart disease:-
 - a. Cardiac Hemodynamic for the interventionist
 - b. Interventional Catheterization for Congenital Heart Disease
 - c. Valvular Heart Disease
 - i. PTMC
 - ii. BAV
 - d. Transcatheter closure of left to right shunts -ASD, PDA
 - e. Hypertrophic Cardiomyopathy Hemodynamic Elevation and Alcohol Ablation Techniques and Results

8. Electrophysiology & pacing :-
 - a. Venous anatomy & access for internationalist
 - b. Single chamber pacemakers- indications and techniques
 - c. Dual chamber pacemakers- indications and techniques
 - d. Implantable Cardioverter Defibrillator- Indications & clinical data
 - e. Biventricular pacing- indications & clinical data
 - f. Basic Electrophysiology – tracing and manoeuvres

(C) Practical Curriculum

Minimum No. of Procedures:-

- a. Number of Echo's done – 200
- b. Number of temporary pacemakers / pericardiocentesis supervised – 100
- c. Number of coronary angiograms done – 100
- d. Number of permanent pacemakers assisted or done – 50
- e. Number of coronary angioplasty done or assisted – 100
- f. Number of non coronary intervention assisted or done – 50
(BMV/ RFA / ASD etc)

6. Examination:-

1. Six months internal assessment by departmental committee
(Case based MCQ)
2. Final certifying examination (Clinical and Practical)- Head of Department & one national faculty
3. Research Publications - (at least 2 in indexed journal-sent/accepted)