

LIST OF ROTATIONS/ELECTIVES AVAILABLE FOR INTERNATIONAL VISITING STUDENTS

There are 13 clinical rotations and 3 lab and research-based rotations for visiting students.

Clinical Electives:

1. Adult reconstruction	10. Paediatric Infectious diseases
2. Breast surgery	11. Neonatology
3. Colon and Rectal surgery	12. Spine Surgery
4. Clinical Ophthalmology	13. Sports Medicine
5. Gastroenterology	14. Geriatric Medicine
6. General Urology	15. Fetal Medicine
7. Haematology- Clinical	16. Clinical Oncology
8. Infectious diseases	17. Nephrology
9. Paediatric Haematology and Oncology	18. Emergency medicine

Lab and Research based rotations:

1. Haematology- Research

2. Infectious Diseases - Research on Healthcare-Associated Infections in Tertiary care Hospital

3. Public Health & Preventive Medicine



The brief description of the electives are as follows:

Clinical Electives:

SI. No.	Name of the elective	Brief description	Duration	Department
1.	Adult reconstruction	This elective will provide the students an exposure to cases of degenerative and destructive conditions of hip and knee joints. They will be able to evaluate and manage osteoarthritis, rheumatoid arthritis and other inflammatory arthritis. They will get to know the multidisciplinary approach to the management of rheumatoid and other inflammatory arthritis. They will also be exposed to various surgical procedures done for these conditions including total joint arthroplasties.	4 weeks	Orthopaedics
2.	Breast surgery	Being a tertiary referral centre many complicated cases of benign and malignant breast conditions are treated in the set protocol of international standards. The electives are also exposed to rare hitherto unknown conditions such as granulomatous mastitis and tubercular mastitis. The hospital has fully fledged medical and radiation oncology wings which along with experienced pathology department are in support of department of surgery.	4 weeks	Surgery
3.	Colon and Rectal surgery	This elective will provide the students with an exposure to common colorectal diseases both benign and colorectal cancer. They will be able to observe outpatient evaluation and management of common colorectal conditions. Students will get opportunity to observe proctoscopy, sigmoidoscopy and colonoscopy; both diagnostic as well as therapeutic. Students will be getting opportunity to observe and assist common surgical procedures [conventional haemorrhoidectomy, hemorrhoidectomy with Ligasure vessel sealing system, stapled haemorrhoidopexy and fistula	6 weeks	Surgery



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		surgeries]. They will also be able to observe open and laparoscopic colorectal surgeries for benign and malignant diseases. Student will also participate in the academics in the surgical unit.		
4.	Clinical Ophthalmology	This elective will provide the students with an exposure to clinical cases which are seen in this part of the country like different types of cataracts, uveitis both anterior and posterior; retinal diseases mainly diabetic retinopathy, all types of glaucoma, diseases of the lids and lacrimal sac and also neuro ophthalmology cases. They will be able to evaluate and manage these clinical conditions. They will also be exposed to emergencies in ophthalmology like cases of trauma both blunt and perforating, cases which come with sudden loss of vision etc. They will be shown paediatric conditions related to Ophthalmology like retinopathy of prematurity, development disorders and ocular problems, other congenital ocular diseases. The elective will also give them an adequate exposure to various systemic diseases with ocular problems. They will also be posted to the operation theatre to observe all types of Ophthalmic surgeries	4 weeks	Ophthalmology
5.	Gastroenterology	This elective will provide the students with an exposure to liver and bowel related cases. They will be able to learn presentation, aetiology, diagnosis and management of infectious hepatitis in tropical countries. They will learn to approach and differentiate between intestinal tuberculosis and Crohn's disease. They will be exposed to medical emergencies with respect to the above in the Intensive Care Units and in wards.	4 weeks	Medicine/ Gastroenterology
6.	General Urology	This elective will provide the students with an exposure to General Urological clinical work which includes urolithiasis, urinary tract trauma, paediatric urology, urological cancers, prostatic diseases, urinary tract infections, urinary tuberculosis, renal transplant, voiding dysfunctions, male erectile dysfunctions and male infertility. The students will be	4 weeks	Urology



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		exposed to triaging, in patient services, operative urology (observer), acute care and intensive care pertaining to the said clinical conditions. Interested students will be exposed on request to urological home care. E-learning with other faculty in the department will be facilitated. As the department attracts diverse urological cases, the student is cautioned not to expect a pattern and it will always be a mixed bag which makes learning interesting and the apt nomenclature-General urology		
7.	Haematology- Clinical	This elective will provide the students with an exposure to basic haematological diseases like anemia, coagulation disorders and haematological malignancies. Some of the typical haematological diseases commoner in tropical countries include anemia secondary to parasitemia, menorrhagia, hypothyroidism, B12 deficiency and hemolytic anaemias, haematological complications of Malaria, Dengue and HIV infection. Some typical haematological-oncological diseases are myelodysplastic syndromes, myeloproliferative diseases, lymphomas etc. They will also be able to evaluate and manage basic forms of anemia, learn how to do bone marrow procedure and interpret molecular diagnostics reports. They will be exposed to haematological emergencies with respect to the above in Intensive Care Units and in wards.	4 weeks	Clinical Haematology
8.	Infectious diseases	This elective will provide the students with an exposure to cases of HIV/AIDS and opportunistic infections associated with it. They will also be able to evaluate and manage other infectious diseases such as Tuberculosis, Malaria, Dengue, Leptospirosis, Pneumonia etc. They will be exposed to medical emergencies with respect to the above in the Intensive Care Units and in the Wards.	4 weeks	Medicine



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9.	Paediatric Haematology and Oncology	As one of the largest centres for paediatric hematology and oncology in costal Karnataka, it would be a unique chance to learn about the management of children's blood related problems and cancer. Elective students will be able to join our trainee doctor team on ward rounds, attend outpatient clinics. Students can attend departmental teaching and hospital clinical society meetings. Opportunities to complete a short project are available. This elective will provide the students with an exposure to cases of childhood cancers and benign haematological conditions such as thalassemia and different kinds of anaemia. They will be able to understand the implications of diagnosis of cancer in children and how it is managed in developing countries. They will be exposed to oncological emergencies and its management. In addition, students will see the cases in far more advanced state than in western countries because of delayed presentation to the hospital.	4 weeks	Paediatrics- Division of Paediatric Haemato- oncology
10.	Paediatric Infectious diseases	This elective will provide the students with an exposure to cases of infectious diseases such as Tuberculosis, Malaria, Dengue, Leptospirosis, Bacterial and viral pneumonias, meningitis, vaccine preventable illness etc. They will also be exposed to children with HIV/AIDS and opportunistic infections associated with it. They will learn to evaluate and manage these cases. They will be exposed to medical emergencies and management with respect to the above in the Intensive Care Units and in the Wards.	4 weeks	Paediatrics
11.	Neonatology	As one of the largest tertiary care NICU in this region with referrals from 11 districts in and around Mangalore, it would be a unique chance to learn about management of sick newborns. Elected students will be able to join our trainee doctor team on NICU rounds, postnatal ward rounds and high risk follow up clinic. Opportunities to complete a short project are available.	4 weeks	Paediatrics



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		This elective will provide the students with an exposure to cases of various preterm illness and term sick babies like birth asphyxia, meconium aspiration, extreme preterms, syndromic babies, congenital anomalies etc. The student can participate in various neonatal procedures like umbilical vein and arterial catheterization, PICC(peripherally inserted central catheter) insertion, femoral line and Internal jugular vein catheterization, endotracheal intubation, peritoneal dialysis, surfactant administration etc. Students can also observe Neurosonogram and lung USG's and functional ECHO to be done bedside on sick babies. Our NICU always is full with 50-60 babies with wide spectrum of cases giving good opportunities to learn.		
12.	Spine Surgery	We are one of the largest centers for Spine Surgery in this part of the country. The elective offers a unique chance to learn about the management of spine related problems. Elective students will be able to join our doctor team on ward rounds, attend outpatient clinics and observe the surgical procedures. Students can attend departmental teaching and hospital clinical society meetings. Opportunities to complete a short project are available. This elective will provide the students with an exposure to cases of degenerative spine disorders, spinal trauma, tumours of spine and the deformities of spine. They will get to see both paediatric and adult spine cases. They will also be able to understand the implications of diagnosis and how these conditions are managed in developing countries. They will also be exposed to emergencies and its management. In addition, students will see the cases in far more advanced state than in western countries because of delayed presentation to the hospital.	6 weeks	Orthopaedics
13.	Sports Medicine	This elective will provide the students an exposure to cases of sports related joint problems. They will also be able to evaluate and manage sports injuries mostly ligamentous and cartilaginous injuries of knee,	4 weeks	Orthopaedics



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		shoulder and ankle joints. They will be exposed to various surgical procedures done for these conditions including diagnostic and therapeutic arthroscopies of knee and shoulder.		
154.	Geriatric Medicine	This elective will provide the students with an exposure to geriatric inpatients and outpatient cases. They will also be able to evaluate and manage common comorbidities associated with geriatrics. They will be exposed to geriatric care including emergencies with respect to the above in the Intensive Care Units and in the Wards. A visit to an old age home to provide hands on experience will be part of the programme.	4 weeks	Medicine
15.	Fetal Medicine	Fetal Medicine is an important and upcoming field of Obstetrics. It is a specialized branch dealing with all aspects of the fetus in utero like its development, its growth and wellbeing to improve perinatal outcomes. The department of OBG is offering an elective for students to observe and participate in different aspects of fetal medicine like routine obstetric sonography, targeted scans, genetic counselling, assessment of fetal growth and its wellbeing including dopplers.	4 weeks	OBG
16.	Clinical Oncology	Clinical Oncology is a highly specialized and technical discipline in clinical medicine comprising treatment with ionizing radiations and cytotoxic agents as major arms in non-surgical management and treatment of cancer. The goal of providing training under this specialty is to enable the students to acquire complete knowledge in diagnosis and comprehensive management of cancer patients with Radiation oncology, chemotherapy and immunotherapy. At the end of the study period, the student will be able to: Attain knowledge for competent, safe, compassionate & ethical multidisciplinary practice of	4 weeks	Radiation Oncology



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		oncology; Attain knowledge, experience & skill in the clinical diagnosis of human neoplastic diseases. Attain knowledge and a high level of technical expertise in all forms of radiation (Image guided radiation therapy, 4D Gated radiotherapy, Stereotactic radiosurgery (STRS) and stereotactic body radiotherapy (SBRT) as a therapeutic tool used in radiotherapy and the adverse effects of Radiation therapy ; Develop communication skills to word reports and professional opinion as well as to interact with patients, relatives, peers and paramedical staff, and for effective teaching. ;Attain skills and experience in Radiotherapy – Basic Techniques, Radiotherapy Assessment and the Care of Patients on Treatment, Supportive and Palliative Care, Site or Disease Specific Procedures and Prevention and screening of common cancers.		
17.	Nephrology	Nephrology deals with the medical management of diseases of the kidney and urinary tract. The Department covers Nephrology, Dialysis and Transplantation services in all the hospitals associated with KMC, Mangalore, including the Government hospitals. This elective will give students a unique perspective in the diagnosis and management of acute and chronic kidney disorders, the assessment and work up of patients for kidney transplantation, preparation for and various options in Renal Replacement Therapy including Hemodialysis and Peritoneal Dialysis, management of patients with renal disorders in the Intensive Care Unit, acid-base and electrolyte disorders and interventional nephrology. The Dept runs the largest dialysis unit in the district and therefore the students will gain good exposure to common issues seen in dialysis and its management. There is an active academic programme run by the Department which the students will be encouraged to participate in.	4 weeks	Nephrology



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18.	Emergency Medicine	This elective allows students to encounter various acute medical and surgical conditions commonly seen in emergency settings, ranging from life-threatening emergencies to urgent care needs. Through active participation and guided mentorship, students will learn to proficiently triage patients and manage diverse medical emergencies such as myocardial infarction, stroke, acute respiratory distress, sepsis, tropical infections, and anaphylaxis, as well as traumatic injuries including polytrauma, fractures, and head injuries. This elective will provide a structured platform for students to observe advanced life support techniques, including CPR, advanced airway management, and various emergency procedures. Experts will also expose them to structured modules on point-of-care ultrasound, simulation, disaster management, and toxicology including animal bites. Students will actively engage in interdisciplinary teamwork with emergency physicians, nurses, paramedics, and ancillary staff to deliver coordinated and patient- centered care, emphasizing developing critical decision-making skills, diagnostic acumen, and implementation of evidence-based treatment protocols.	4 weeks	Emergency Medicine



Lab and Research based rotations:

The Brief description as follows:

SI. No.	Name of the elective	Brief description	Duration	Department
NO.				
1.	Haematology- Research	This elective will provide the students with an exposure to basic haematological diseases like anemia, coagulation disorders and haematological malignancies. Some of the typical haematological diseases commoner in tropical countries are anemia secondary to parasitemia, menorrhagia, hypothyroidism, B12 deficiency and hemolytic anaemia, haematological complications of Malaria, Dengue and HIV infection. Some typical haematological-oncological diseases are myelodysplastic syndromes, myeloproliferative diseases, lymphoma etc. They will be given simple yet useful research topics covering above topics which the student will be able to finish in eight weeks and will be able to present it in a platform apt for the topic.	4 weeks	Pathology- Division of Heamatology
2.	Infectious Diseases - Research on Healthcare- Associated Infections in Tertiary care Hospital.	This elective will provide the student with an exposure to identify a research question in Healthcare- associated infections, write a protocol, and submit it to IEC for approval. It will also involve opportunity to observe different kinds of healthcare-associated infections, collection of clinical specimens, transportation and processing. Further, it will have	6 weeks	Microbiology



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	exposure to collect data, analyze them and writing a project report.		
3. Public Health & Preventive Medicine	This elective will provide the students an opportunity to learn the health care delivery systems in rural India. Health care in India is facing a huge challenge because of rising burden of chronic non-communicable diseases, increasing elderly population and environmental changes and on the other hand maternal and child mortality. HIV/AIDS pandemic and other communicable diseases still exerts immense pressure on the health systems. The students will be posted in Rural & Urban Health Centres where they will get an exposure to Preventive, Promotive & Curative Primary health care services. They will get an exposure to the common Maternal and Child health problems along with common diseases in the community and will be trained to manage these problems. Students will get an exposure to health system research and basic biostatistics and can get involved in short term research projects in areas of public health importance.	4 weeks	Community Medicine

Interested students are requested to send an e-mail to dean.kmcmlr@manipal.edu expressing their interest in pursuing an elective.