<u>Hamdard Institute of Medical Sciences and Research</u> <u>Department of Medicine</u>

| Name of Elective | : Rheumatology and exposure to various rheumatic diseases HAHC Hospital, HIMSR |
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| Name of the Supervisor | : Dr. Dharmander Singh |
| Learning Objective | 1. Understand the diagnosis and management of common rheumatic disease. |
| | 2. Develop skills in musculoskeletal examination. |
| | 3. Appreciate role of multi-disciplinary team in rheumatology care |
| | Familiarize yourself with rheumatology specific investigations is and treatment. |
| Number of students | : 5 |
| Duration | : 2 weeks |
| Learning Resources | : Textbooks: "Rheumatology" by Anthony J. Pinsonneault, "Kelley's Textbook of Rheumatology" by Gary S. Firestein. Harrison text book of Medicine |
| | Online resources: American College of Rheumatology (ACR) website, European League Against Rheumatism (EULAR) website. |
| | Journals: "Arthritis & Rheumatology", "The Lancet Rheumatology" |
| Clinical Experience | |
| | 1. Outpatient clinics: Attend rheumatology clinics to observe and assist in patient consultations. |
| | Ward rounds: Participate in ward rounds to manage hospitalized patients with rheumatic diseases. |
| | Joint injections and aspirations: Assist in performing joint injections and aspirations under supervision. |
| | 4. Musculoskeletal examinations: Practice musculoskeletal examinations on patients with various rheumatic conditions. |

| | Rheumatoid arthritis: Pathophysiology, diagnosis, treatment options, and management strategies. |
|----------------------|--|
| | Osteoarthritis: Epidemiology, diagnosis, treatment options, and management strategies. |
| | Systemic lupus erythematosus (SLE): Pathophysiology, diagnosis, treatment options, and management strategies. |
| | Gout and pseudogout: Diagnosis, treatment options, and management strategies. |
| | Spondyloarthritis: Diagnosis, treatment options, and management strategies. |
| Learning Resources : | Textbooks: "Rheumatology" by Anthony J. Pinsonneault, "Kelley's Textbook of Rheumatology" by Gary S. Firestein. Harrison text book of Medicine |
| | Online resources: American College of Rheumatology (ACR) website, European League Against Rheumatism (EULAR) website. |
| | Journals: "Arthritis & Rheumatology", "The Lancet Rheumatology" |
| | |
| Assessment : : | Attendance |

- : Log book entries
- : Daily rounds

<u>Hamdard Institute of Medical Sciences and Research</u> <u>Department of Medicine</u>

| Name of Elective | : Care of patients on mechanical ventilation |
|------------------------|--|
| | : HAHC Hospital, HIMSR |
| Name of the Supervisor | : Dr. Arvind Kumar |
| Learning Objective | : Understand the indications, contraindications, and complications of mechanical ventilation. |
| | Develop skills in setting up, managing, and weaning patients from mechanical ventilation. |
| | Appreciate the importance of multidisciplinary teams in caring for mechanically ventilated patients. |
| | Familiarize yourself with current guidelines and best practices for mechanical ventilation. |
| Number of students | : 5 |
| Duration | : 2 weeks |
| Clinical Experience | Intensive Care Unit (ICU) rotations: Participate in ICU rounds to manage mechanically ventilated patients. |
| | Mechanical ventilation management: Assist in setting up, adjusting, and troubleshooting mechanical ventilation systems. |
| | Patient assessment: Develop skills in assessing patients' respiratory status, including interpreting arterial blood gases (ABGs) and chest radiographs. |
| | Multidisciplinary team meetings: Attend meetings to understand the role of different healthcare professionals in caring for mechanically ventilated patients. |
| Topics to Cover | Indications for mechanical ventilation: Respiratory failure, cardiac arrest, neurosurgical procedures. |
| | Modes of mechanical ventilation: Assist-control (AC), synchronized intermittent mandatory ventilation (SIMV), pressure support ventilation (PSV). |

| | Ventilator settings: Tidal volume, respiratory rate, inspiratory pressure, positive end-expiratory pressure (PEEP). |
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| | Complications of mechanical ventilation: Ventilator- associated pneumonia (VAP), barotrauma, volutrauma. |
| | Weaning from mechanical ventilation: Criteria for weaning, weaning protocols, non-invasive ventilation. |
| Learning Resources | : Textbooks: "Mechanical Ventilation" by Martin J. Tobin, "Principles of Critical Care" by Hall, Schmidt, Wood. |
| | Online resources: American Thoracic Society (ATS) website, Society of Critical Care Medicine (SCCM) website. |
| | Journals: "American Journal of Respiratory and Critical Care Medicine", "Critical Care Medicine", "Intensive Care Medicine". |
| | |
| Assessment : | : Attendance |

- : Log book entries
- : Daily rounds

<u>Hamdard Institute of Medical Sciences and Research</u> <u>Department of Medicine</u>

| Name of Elective | : Diabetes and its complications |
|------------------------|---|
| | HAHC Hospital, HIMSR |
| Name of the Supervisor | : Dr. Saood Mailk |
| Learning Objective | Understand the pathophysiology and clinical presentation of diabetes-related complications. |
| | Develop skills in diagnosing and managing diabetes-related complications. |
| | Appreciate the importance of multidisciplinary teams in managing diabetes-related complications. |
| | Familiarize yourself with current guidelines and treatment options for diabetes-related complications. |
| Number of students | : 5 |
| Duration | : 2 weeks |
| Clinical Experience | Outpatient clinics: Attend diabetes clinics to observe and assist in patient consultations. |
| | 2.Ward rounds: Participate in ward rounds to manage hospitalized patients with diabetes-related complications. |
| | Multidisciplinary team meetings: Attend meetings to understand the role of different healthcare professionals in managing diabetes-related complications. |
| Topics to Cover | 1. Diabetic retinopathy: Pathophysiology, diagnosis, treatment options, and management strategies. |
| | Diabetic nephropathy: Pathophysiology, diagnosis, treatment options, and management strategies. |
| | Diabetic neuropathy: Pathophysiology, diagnosis, treatment options, and management strategies. |
| | Diabetic foot: Pathophysiology, diagnosis, treatment options, and management strategies. |

| | 5. Cardiovascular disease in diabetes: Pathophysiology, diagnosis, treatment options, and management strategies. |
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| Learning Resources : | Textbooks: "Joslin's Diabetes Mellitus" by C. Ronald Kahn, "Diabetes Mellitus: A Fundamental and Clinical Text" by Derek LeRoith. |
| | Online resources: American Diabetes Association (ADA) website, International Diabetes Federation (IDF) website. |
| | Journals: "Diabetes Care", "Diabetologia", "Journal of Clinical Endocrinology and Metabolism". |
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| Assessment : : | Attendance |
| : | Log book entries |

: Daily rounds