GOVERNMENT OF DUBAI

DEPARTMENT OF HEALTH AND MEDICAL SERVICES

DUBAI MEDICAL COLLEGE

CLINICAL FACULTY

SYLLABUS
TEACHING UNITS
CLINICAL ATTACHMENT

STATE IN 1992

YEAR 1 - 3 OF CLINICAL COURSE
NOTE

The syllabus and Clinical Attachment Schedules presented here have been and are still constantly updated and revised with the aim to shift from lectures to small-group-teaching, discussion groups, problem-solving, bedside tutorials and integrated sessions between pre-clinical and clinical sciences.

Some of these changes, which have been taken place in the meantime are not reflected in the summary presented.
# Table of Contents

<table>
<thead>
<tr>
<th>Contents</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Morning Attachment Medicine</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Division Of The Medicine Course</strong></td>
<td>6</td>
</tr>
<tr>
<td><strong>Division Medical Lecture Course</strong></td>
<td>7</td>
</tr>
<tr>
<td>Cardio-Vascular Medicine</td>
<td>7</td>
</tr>
<tr>
<td>Haematology</td>
<td>7</td>
</tr>
<tr>
<td>Infectious Disease</td>
<td>7</td>
</tr>
<tr>
<td>Oncology</td>
<td>7</td>
</tr>
<tr>
<td>Gastro-Enterology</td>
<td>8</td>
</tr>
<tr>
<td>Renal Medicine</td>
<td>8</td>
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<tr>
<td>Respiratory Medicine</td>
<td>8</td>
</tr>
<tr>
<td>Endocrinology</td>
<td>9</td>
</tr>
<tr>
<td>Rheumatology</td>
<td>9</td>
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<tr>
<td>Clinical Pharmacology And Therapeutics</td>
<td>10</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>10</td>
</tr>
<tr>
<td>Neurology</td>
<td>11</td>
</tr>
<tr>
<td>Dermatology And Venereology</td>
<td>11</td>
</tr>
<tr>
<td><strong>Medical Seminar Course</strong></td>
<td>12</td>
</tr>
<tr>
<td>Cardiovascular Medicine</td>
<td>12</td>
</tr>
<tr>
<td>Haematology</td>
<td>12</td>
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<td>12</td>
</tr>
<tr>
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<td>13</td>
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<td>13</td>
</tr>
<tr>
<td>Neurology</td>
<td>13</td>
</tr>
<tr>
<td><strong>Division Of Surgery Course</strong></td>
<td>14</td>
</tr>
<tr>
<td>List Of Lectures In General Surgery</td>
<td>16</td>
</tr>
<tr>
<td>List Of Surgical Seminars Presented By The Student</td>
<td>20</td>
</tr>
<tr>
<td>List Of Problem – Solving Sessions In Surgery</td>
<td>21</td>
</tr>
<tr>
<td>List Of Lectures In Traumatology Including The List Of Seminars In</td>
<td>22</td>
</tr>
<tr>
<td>List Of Tutorials In &quot;Fractures And Locomotor Injuries&quot;</td>
<td>24</td>
</tr>
<tr>
<td>List Of Tutorials In &quot;Emergencies&quot;</td>
<td>24</td>
</tr>
<tr>
<td>List Of Lectures In Urology</td>
<td>25</td>
</tr>
<tr>
<td>List Of Seminars In Urology</td>
<td>26</td>
</tr>
<tr>
<td>List Of Lectures In Orthopaedic Surgery</td>
<td>27</td>
</tr>
<tr>
<td>Section</td>
<td>Page</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>List Of Seminars In Orthopaedic Surgery</td>
<td>28</td>
</tr>
<tr>
<td>List Of Seminars In Thoracic Surgery</td>
<td>28</td>
</tr>
<tr>
<td>List Of Lectures In Neurosurgery</td>
<td>29</td>
</tr>
<tr>
<td>List Of Seminars In Paediatric Surgery</td>
<td>29</td>
</tr>
<tr>
<td>List Of Lectures In Ophthalmology</td>
<td>30</td>
</tr>
<tr>
<td>Lectures In Ent-Head/Neck Surgery</td>
<td>31</td>
</tr>
<tr>
<td>List Of Seminars In Ent-Head/Neck Surgery</td>
<td>32</td>
</tr>
<tr>
<td>Lecture List Of Rehabilitation And Physical Medicine</td>
<td>32</td>
</tr>
<tr>
<td>List Of Seminars In Physical Medicine And Rehabilitation</td>
<td>33</td>
</tr>
<tr>
<td>List Of Lectures In Radiology And Imaging</td>
<td>33</td>
</tr>
<tr>
<td>List Of Seminars In Radiology</td>
<td>34</td>
</tr>
<tr>
<td>List Of Lectures In Forensic Medicine</td>
<td>34</td>
</tr>
<tr>
<td>Lecture Programme For Anaesthesia</td>
<td>35</td>
</tr>
<tr>
<td>List Of Seminars In Anaesthesiology</td>
<td>35</td>
</tr>
<tr>
<td><strong>Division Of The Obstetrics &amp; Gynaecology</strong></td>
<td>36</td>
</tr>
<tr>
<td>List Of Obstetric–Gynaecology Lecture Course</td>
<td>38</td>
</tr>
<tr>
<td>List Of Obstetric–Gynaecology Seminar And Tutorial Course</td>
<td>42</td>
</tr>
<tr>
<td><strong>Division Of Pediatrics</strong></td>
<td>44</td>
</tr>
<tr>
<td>Pediatric Teaching In The Introductory Course</td>
<td>45</td>
</tr>
<tr>
<td>Pediatric Teaching During The Academic Year</td>
<td>46</td>
</tr>
<tr>
<td>Pediatric Teaching In The Revision Course</td>
<td>48</td>
</tr>
<tr>
<td>The Total Pediatric Teaching For An Undergraduate</td>
<td>49</td>
</tr>
<tr>
<td>Pediatric Lecture Course</td>
<td>50</td>
</tr>
<tr>
<td><strong>List Of Books Recommended To The Students</strong></td>
<td>54</td>
</tr>
<tr>
<td><strong>Curriculum Of Family And Community Medicine</strong></td>
<td>55</td>
</tr>
<tr>
<td>Curriculum Of Cardiovascular Module</td>
<td>55</td>
</tr>
<tr>
<td>Curriculum Of Communication Skills</td>
<td>55</td>
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CLINICAL ROTATION DURING YEAR 1-3 OF THE CLINICAL COURSE

(6 TERMS OF 17 TEACHING WEEKS)

MORNING ATTACHMENT (8.00 - 12.00)

Name of Student:  

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**Teaching Units Per Students.**

**A TEACHING UNIT IS DEFINED AS**

- A 45 minute lecture.
- 1 Hour Tutorial/problem solving/seminar/conference.
- A 3 hour of clinical attachment Clinics /Wards /Theatre/etc.
- 16 hour on-call duties.
TABLE OF CONTENTS

- TEACHING STAFF

- BASIC CLINICAL (Introductory) COURSE

- TEACHING UNIT PER STUDENT IN THE CLINICAL COURSE
<table>
<thead>
<tr>
<th>Course</th>
<th>Lectures</th>
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</tr>
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<td>43</td>
<td>15</td>
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<td>44</td>
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<td><strong>210</strong></td>
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Medical Lecture course

General internal medicine

Cardio-Vascular Medicine

Cardiac failure
Ischemic heart disease
Hypertension
Cardiac arrhythmias
Rheumatic fever and
Valvular heart disease
Congenital heart disease
Pregnancy, cardiovascular adjustment and disease
Synopsis of cardiovascular Disease

Haematology

Anaemias
Coagulation and bleeding disorders
Malignancies of blood
Transfusions, blood plasma
Erythrosis and polycythaemia
Synopsis of blood diseases

Infectious disease

Malaria
Pyrexia of unknown origin
Meningitis
Viral hepatitis
Gram-negative septicaemia and shock
Synopsis of infectious diseases

Oncology
<table>
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<th><strong>UNITS</strong></th>
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</tr>
<tr>
<td>Digestion and male absorbtion syndromes</td>
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<td>Inflammatory bowel disease</td>
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<td>Jaundice and biliary obstruction</td>
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</tr>
<tr>
<td>Irregular bowel habits</td>
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</tr>
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<td>Malignancies</td>
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</tr>
</tbody>
</table>

| **RENAI MEDICINE**          |           |
| Water and electrolyte balance |       |
| Glomerulo-nephritis         |           |
| Acute and chronic renal failure |     |
| Urinary tract infection     |           |
| Tubulo-interstitial disease|           |
| Hereditary disorders        |           |
| Dialysis and blood purification |     |
| Renal transplantation       |           |
| Synopsis of renal diseases  |           |

| **RESPIRATORY MEDICINE**    |           |
| General principles          |           |
| Respiratory failure         |           |
| Pulmonary infections        |           |
| Pneumonia, bronchitis, bronchiectasis | 25 |
| Airflow obstruction, asthma, chronic obstructive airway disease | |
| Pulmonary tuberculosis      |           |
| Pulmonary malignancies      |           |
| Synopsis of respiratory medicine |     |

| **ENDOCRINOLOGY**           |           |
| Hypothalamus and pituitary  |           |
| Thyroid gland               |           |
| Adrenal glands              |           |
| Parathyroid glands          | 19        |
| Reproductive endocrinology  |           |
Diabetes
Synopsis of endocrinology

RHEUMATOLOGY

Classification
History taking and examination
Rheumatoid arthritis
Sero-negative arthritis
Connective tissue disorders
Osteoarthritis
Crystal induced and septic arthritis
Low backache syndrome
Synopsis of rheumatology

CLINICAL PHARMACOLOGY AND THERAPEUTICS

Basic pharmacological principles
Digoxin and diuretics
Reception theory
Anti-ischaemic agents
Anti-inflammatory drugs
Anti-hypertensive drugs
Acute poisoning
Opiums and drug abuse
Anti-arrhythmic agents
Anti-coagulants and thrombolytic agents
Anti-psychotic agents
Anti-depressive agents
Alcoholism and related diseases
Agents used in hyperlipidaemias
Endocrine pharmacology
Anti-convulsives
Antibiotics
Pancreatic hormones
Sedatives, hypnotics, anesthetics
Agents used in anaemias
PSYCHIATRY

History and epidemiology of psychiatrics
History taking and examination of mental states
Psychiatric symptomatology
Schizophrenic and paranoid states
Alcoholism
Drug Dependence
Neurosis and personality disorders
Child and adolescent psychiatry
Mental handicap
Affective disorders
Psychiatric disorders of old age
Organic brain syndrome
Suicide and parasuicide
Eating disorders.
Psychosexual disorders
Treatment in Psychiatry
Synopsis of psychiatry

NEUROLOGY

Cerebro-vascular accidents
Increased intracranial pressure
Parkinson's disease
Epileptic fits
Cerebellar disease.
DERMATOLOGY AND VENEREOLOGY

Anatomy and physiology of the skin
Superficial fungal infections
Dermatosis caused by parasites
Bacterial infection
Viral diseases
Eczema
Acne vulgaris
Psoriasis
Lichen planus and lichenoid eruptions
Dry eruptions
Leprosy
Tuberculosis of the skin
Urticaria
Connective tissue diseases
Paediatric dermatoses
Hereditary disease
Hair-and-nail diseases
Tumors of the skin
Eccrine and apocrine glands
Differential diagnosis of rash on exposure
Bullous eruptions
Urethral discharge
Aids
Syphilis
Lymph—granuloma venerum
Herpes progenitalis
Pregnancy and neonate
Vaginal discharge

Total 337
# MEDICAL SEMINAR COURSE

## Cardiovascular Medicine

<table>
<thead>
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<td>Hypertension</td>
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<td>Cardiac arrhythmias</td>
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<td>Valvular heart disease</td>
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<td>Congenital heart disease</td>
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<td>Pregnancy and cardiovascular disease</td>
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## Haematology

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<td>Transfusions</td>
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<td>Erythrosis and polycythaemia</td>
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## Infectious diseases

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## Gastroenterology

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<td>Malabsorption syndromes</td>
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<td>Inflammatory bowel disease</td>
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<td>Irregular bowel habits</td>
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</table>
Renal medicine
Water and electrolyte balance 14
Glomerulo-nephritis
Renal failure
Tubulo-interstitial disease
Hereditary disorders
Dialysis
Renal transplantation

Respiratory Medicine
Respiratory failure
Pulmonary infections 10
Airflow obstruction
Pulmonary tuberculosis
Pulmonary malignancies

Endocrinology
Hypothalamus and pituitary
Thyroid gland
Adrenal glands 10
Parathyroid glands
Reproductive endocrinology

Rheumatology
Classification
Rheumatoid arthritis
Sero-negative arthropathy 14
Connective tissue disorders
Osteoarthritis
Soft tissue Rheumatism
Low backache syndrome

Clinical Pharmacology 15
Therapeutic vignettes

Neurology
Cerebro-vascular accidents
Increased intracranial pressure
Parkinson's disease 8
Cerebellar disease
Department of health and medical services
Dubai medical college for girls
Clinical faculty

Academic department of surgery

Table of contents

Teaching units (45 minutes) per student
Lectures, seminars and tutorials in
  General surgery
  Traumatology
  Urology
  Orthopaedic surgery
  Cardiothoracic surgery
  Neurosurgery
  Paediatric surgery
  Ophthalmology
  ENT-Head/neck surgery
  Plastic surgery
  Rehabilitation, physical medicine
  Radiology and imaging
  Forensic medicine
  Anaesthesiology
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A Teaching Unit is defined as:  
- A Lecture of 45 minutes  
- A Seminar, Tutorial, Problem Solving Session or Conference of 1 hour  
- A Clinical Attachment (Wards, Clinics, Theatres, etc)  
- An On-Call Duty of 6 hours.
LIST OF LECTURES IN GENERAL SURGERY

1. Approach to patient and history taking
2. Analyzing patients complaints
3. Symptoms and signs I
4. Symptoms and signs II
5. Symptoms and signs III
6. Types of wounds and wound healing
7. Disturbances of wound healing
8. Surgical infections and infections of the hand
9. Arterial disease
10. Arterial disease
11. Compartment syndrome
12. Pathophysiology of shock
13. Clinical aspect and treatment of shock
14. Fat embolism
15. Acute infections of bone
16. Chronic infections of bone
17. Infections of joints
18. Chronic Surgical infections I : Actinomycosis Tuberculosis
19. Chronic Surgical infections II : Syph. Leprae
20. Parasitic surgical infections I
21. Parasitic surgical infections II
22. Anaerobic I infections: Tetanus
23. Anaerobic II infections: Gas gangrene
24. Terms, types, methods & indications for surgical intervention.
25. Preoperative assessment risk factors
26. Postoperative care & complications
27. Auerysms, fistula & vascular injuries i
28. Auerysms, fistula & vascular injuries ii
29. Varicoses, phlebotrombosis, thrombophlebitis, embolism
30. Oral inflammation, ulcers, tumours of lip & tongue
31. Inflammations, stones & tumours of salivary glands
32. Oesophagus, achalasia, hiatus hernia
33. Reflux oesophagus disease, diverticulosis, strictures
34. Peptic ulcer disease, surgical anatomy & physiology
35. Clinical pathology of peptic ulcer disease
36. Peptic ulcer disease presentation, symptoms, signs & investigation
37. Management of peptic ulcer disease
38. Complications of peptic ulcer disease
39. Cancer of the stomach
40. Operations for gastric & duodenal ulcer & cancer
41. Haematemesis & melena I
42. Haematemesis & melena II
43. Post operative complications (local)
44. Post operative complications (general)
45. Hospital acquired infections, types, control
46. Prophylaxis & treatment of nasocomial infections
47. Prophylaxis & treatment of infections in trauma
48. Thyroid – Surgical anatomy, embryology, ectopic cysts & fistula
49. Thyroid – physiology, clinical presentation, examination test for function
50. Simple Goitre
51. Toxic Goitre
52. Thyroid carcinoma
53. Surgical anatomy of the breast (lobular, structure, blood supply, lymphatic drainage, axillary tail, areola, nipple)
54. Physiology (hormonal control of breast function & functional abnormalities, gynaecomastia, hypertrophy)
55. Epidemiology of breast disease (frequency, personal + family history, age, distribution, risk factors)
56. Symptoms + signs, clinical findings, examinations + self examination techniques + investigations (mammography, fine needle, trucut, excisional biopsy)
57. Benign breast disorders (fibroadenosis, seroctic diseases, fibroadenoma, duct papilloma, traumatic fat necrosis, duct ectasia)
58. Cellulites, abscess of the breast
59. Carcinoma of breast I
60. Carcinoma of breast II
61. Carcinoma of breast III
63. Investigations of the biliary system
64. Acute & chronic cholecystitis, cholangitis cancer of the biliary system.
65. Management and complications of cholecystitis and biliary obstruction (obstructive jaundice I & II).
66. Surgical anatomy of the liver related to portal hypertension and haemodynamics.
67. Management of haemorrhage from oesophageal varices, operations for portal hypertension.
68. Liver abscesses and cysts.
69. Tumors of the liver and liver trauma.
70. Surgical anatomy and physiology of the pancreas function tests and investigations.
71. Congenital malformations and injuries of the pancreas, aetiology and classifications of pancreatitis.
72. Acute pancreatitis.
73. Chronic pancreatitis – clinical presentation and management.
74. Cancer and endocrine tumors of the pancreas.
75. Splenic ruptures, hypersplenism and indications for splenectomy.
76. Surgical anatomy of the peritoneum.
77. Peritonitis – causes, pathology and clinical picture.
78. Peritonitis – management.
79. Complications and residual abscess formation.
80. Ascites and neoplasms of the peritoneum.
81. Surgical anatomy of hernial apertures definition, types in general terms (reduction etc) and contents.
82. Hernias in anatomical terms (inguinal, umbilical, epigastric etc).
83. Treatment of hernias.
84. Complications.
85. Surgical anatomy and physiology of small and large intestines.
86. Tumors of the small intestines (benign, malignant, carcinoids) trauma to bowel and mesentery.
89. Appendicitis (treatment and complications).
90. Diverticular disease of the bowel and polyposis.
91. Inflammatory diseases of the bowel (ulcerative and transmural colitis).
94. Intestinal obstruction I.
95. Intestinal obstruction II.
96. Paralytic ileus.
97. Anatomy and physiology of rectum and anus.
98. Haemorroids and anal fistula
99. Prolapse, proctitis, strictures and benign tumors
100. Incontinence
101. Carcinoma of the rectum I
102. Carcinoma of the rectum II
103. Perianal conditions and neoplasms
104. Preparation, principles and procedures in bowel, surgery
105. Complications of bowel surgery
106. Acute abdomen, classification and causes
107. Acute abdomen, symptoms, signs, investigations
108. Acute abdomen, differential diagnosis and management
109. Blood transfusion

Total  11 Units.
1. Swelling, lumps and ulcers
2. Cellulites and abscesses
3. Sinus and fistula
4. Arterial disease and gangrene
5. Diseases of the veins
6. The swollen limb
7. Surgical disorders of the skin
8. Primary assessment and management of the seriously injured
9. Ano-rectal disease
10. Abdominal injuries
11. Disorders of the groin I
12. Disorders of the groin II
13. Chronic large bowel disease
14. Acute abdomen I
15. Acute abdomen II
16. Non-acute abdominal pain I
17. Non-acute abdominal pain II
18. Obstructive jaundice I
19. Obstructive jaundice II

Total 38 Units
LIST OF PROBLEM – SOLVING SESSIONS IN SURGERY
(1 SESSION 1 1/2 HOURS PER TOPIC).

1. Multiple trauma
2. Intestinal hemorrhage (bleeding D.U.).
3. Pancreatitis
4. Large bowel disease
5. Breast cancer
6. Obstructive jaundice
7. Thyroid swelling
8. Intestinal obstruction
9. Lower G.I.T. bleeding
10. Appendicitis

Total 20 Units
LIST OF LECTURES IN TRAUMATOLOGY

1. Fractures (Mechanisms, patterns, displacement, classification).
2. Effect of fractures on the whole organism, complications and "Fracture Disease"
4. Disturbances of fracture healing
5. Principles of conservative treatment of fractures
9. Shoulder and upper extremity (except wrist and fractures in children).
10. Fractures of the wrist and hand (incl. Colle's etc.).
11. Hand injuries (excl. Fractures) soft tissue, ligaments, tendons, nerves).
13. Fractures of the neck of the femur and subtrochanteric fractures.
15. Fractures of the femur and lower leg.
16. Fractures of the ankle and foot
17. Fractures of the spine
19. Fractures in children (upper extremity)
20. Fractures in children (lower extremity)
21. Ligamentous, capsular and meniscal injuries.
22. Blunt and open abdominal trauma

Total 20 Units.
LIST OF SEMINARS IN TRAUMATOLOGY
(SESSION OF 1 1/2 HOURS PER TOPIC).

1. Fractures in general
2. Shoulder
3. Elbow and forearm
4. Wrist and hand
5. Hip
6. Knee
7. Lower leg, Ankle
8. Spine, pelvis
9. Plasters, splints, dressings
10. Surgical, instruments
11. Approach to emergencies
12. Shock and resuscitation
13. Unconsciousness
14. Effects of extreme temperature poisoning
15. Burns and scalds.
16. Bites
17. Wounds, Hamorrhage, foreign bodies
18. Asphyxia
19. Handling and transfer

Total 40 Units
LIST OF TUTORIALS IN "FRACTURES AND LOCOMOTOR INJURIES"
(1 1/2 HOUR PER SESSION)

1. Fractures in general
2. Shoulder
3. Elbow-Forearm
4. Wrist-Hand
5. Hip
6. Knee
7. Lower leg, ankle, foot
8. Spine, Pelvis
9. Plasters of paris, splints, bandages, dressing
10. Surgical instruments.

Total 20 Units.

LIST OF TUTORIALS IN "EMERGENCIES"
(1 1/2 HOURS PER SESSION)

1. Approach to emergencies
2. Shock and resuscitation
3. Unconsciousness
4. Burns and scalds
5. Snake bites and others
6. Wounds, foreign bodies, haemorrhage
7. Asphyxia
8. Effects of extreme temperatures
9. Poisoning
10. Handling and Transfer

Total 20 Units.
LIST OF LECTURES IN UROLOGY

1. Anatomy and physiology

2. Investigations, symptoms and signs
   - clinical
   - Chemical and laboratory
   - Technical

3. Diseases of the upper urinary tract
   a) Congenital anomalies
      - renal anomalies
      - Ureteral anomalies
      - Reflux
   b) Traumatic lesions "neural and ureteral"
   c) Urolithiasis.
   d) Infections and parasitological diseases.
   e) Tumors and cysts

4. The Bladder
   a. congenital anomalies
   b. Injuries
   c. Infections and Parasitology
   d. Vesical calculi
   e. Diverticula
   f. Fistula
   g. Tumors
   h. Bladder neck obstruction
   i. The neurogenic bladder

5. Diseases of the prostate
   b) Infections
   c) Prostatic calculi
   d) Tumors of the prostatic gland
6. Diseases of the urethra
   b) Congenital anomalies of the urethra
   c) Injuries of the Urethra
   d) Infections
   e) Urethral structures
   f) Urethral calculi
   g) Tumors "male and female"

7. Diseases of the male genital system.
   b) The penis
   c) The Testis
   d) Spermatic cord.

Total 11 Units.

LIST OF SEMINARS IN UROLOGY
(1 SESSION OF 1 1/2 HOURS PER TOPIC)

1. Urological complaints, symptoms and signs
2. Specific urological, investigations
3. Retention of urine
4. Haematuria

Total 8 Units
LIST OF LECTURES IN ORTHOPAEDIC SURGERY

1. Scoliosis
2. Unspecific low back pain
3. Prolapsed intervertebral disc
4. Facet arthropathy of the spine
5. Spondylolysis and spondylolisthesis
6. Congenital dislocation of the hip
7. Perthes disease and "Observation hip"
8. Slipped capital femoral emphys
9. Idiopathic necrosis of the head of the femur and other osteonecrosis
10. Degenerative osteoarthritis in general
11. Osteoarthritis of the hip
12. Osteoarthritis of the knee
13. Talipes equino-varus and other congenital foot deformities
14. Congenital limb defects and other congenital malformations
15. Growth problems and limb length inequality
16. Flat foot and painful foot
17. Rheumatoid arthritis
18. Non-rheumatoid collagen disease
19. Metabolic diseases
20. Systemic bone and joint diseases
21. Bone tumours
22. Erb's palsy and brachial plexus injuries in the perinatal period.
23. Poliomyelitis
24. Cerebral palsy
25. Nerve-and root compression syndromes
26. Shoulder pain
27. Anterior knee pain
28. Bone and joint tuberculosis
29. Standard orthopaedic procedures

Total 29 Units.
LIST OF SEMINARS IN ORTHOPAEDIC SURGERY
(1 SESSION 1 1/2 HOURS PER TOPIC)

1. Assessment of joint mobility and muscle function.
2. Gait analysis and limping
3. Stiffness and contracture
4. Spastic and flaccid paralysis
5. Nerve and root compression syndromes
6. Problem solving: knee pain

Total 12 Units.

LIST OF SEMINARS IN THORACIC SURGERY
(2 SESSIONS OF 1 1/2 HOURS PER TOPIC).

1. Thoracic injuries, clinical and radiological presentation.
2. Thoracic injuries management

Total 4 Units.
LIST OF LECTURES IN NEUROSURGERY

1. Intracranial pressure
2. Focal (localizing) signs
3. Non-Traumatic space occupying lesions I (Brain tumours, CNS infections, pseudo-tumour cerebri).
4. Non-Traumatic space occupying lesions II.
5. Head injuries I
6. Head injuries II
7. Haemorrhagic brain lesions
8. Congenital conditions
9. Traumatic lesions of the peripheral nervous system
10. Traumatic lesions of the spinal cord
11. Neurosurgical diagnostic procedures

Total 12 Units.

LIST OF SEMINARS IN PAEDIATRIC SURGERY

(1 SESSION OF 1 1/2 HOURS PER TOPIC).

1. Abdominal mass in infants and children
2. Intestinal obstruction in neonates and children
3. Neonatal emergencies
4. Inguino-scrotal swellings.

Total 8 Units.
LIST OF LECTURES IN OPHTHALMOLOGY

1. Anatomy and examination
2. Eye lids: Diseases and treatment
3. Disorders of lacrimal drainage apparatus
4. Disorders of conjunctiva I
5. Disorders of conjunctiva II
6. Disorders of the cornea and sclera I
7. Disorders of the cornea and sclera II
8. Disorders of the uveal tract I
9. Disorders of the uveal tract II
10. Glaucoma and examination of visual fields
11. Diseases of the vitreous
12. Glaucoma and examination of visual fields
13. Diseases of the retina I
14. Diseases of the retina II
15. Ocular pharmacology
16. The principles of refraction and general optics
17. Ocular manifestation of systemic disease
18. Strabismus and disorders of the mobility of the eyes
19. The crystalline lens
20. Diseases of the orbit
21. Ocular manifestation of the disorders of the nervous system.

Total 21 Units.

LIST OF SEMINARS IN OPHTHALMOLOGY

(1 SESSION OF 1 1/2 HOURS PER TOPIC)

1. Specific ophthalmological investigations
2. The "Red eye"
3. Impairment of vision
4. Double vision

Total 8 Units.
LECTURES IN ENT-HEAD/NECK SURGERY

1. Applied clinical anatomy & physiology hearing test.
2. Ear trauma and management
3. Diseases of external ear and otitis externa
4. Acute otitis media
5. Chronic otitis media
6. Complications of otitis media
7. Otosclerosis
8. Meniere's disease
9. Deafness
10. Vertigo
11. Applied clinical anatomy, physiology, septal haematoma & foreign body in the nose
12. Nasal and sinus trauma and management
13. Nasal obstruction and septal deviation
14. Rhinitis
15. Nasal allergy and polyp
16. Epistaxis
17. Acute sinusitis
18. Chronic sinusitis and complications
19. Tumour of the nose and paranasal sinuses
20. Tumour of the nasopharynx and postnasal space
21. Acute tonsillitis and differential diagnosis of sore throat, chronic tonsillitis
22. Pre-operative consideration and assessment of the patient with head and neck disease.
23. Post-operative care
24. Local and general complications after head and neck surgery.
26. Mass in the neck-differential diagnosis and management ( Two lectures).
27. Tumour of the Hip, tongue, oral cavity and oropharynx.
28. Tumour of hypopharynx and diverticuli of the pharynx.
29. Tumour of the larynx and (cervical trachea).
30. Vocal cord paralyiss.
31. Trauma nad stenoiss of the larynx and cervical trachea
32. Tracheostomy and tracheotomy post-operative care and complications.
33. Neoplastic and non neoplastic diseases of salivary glands.
34. Foreign body in the bronchus and oesophagus
35. Tumours and perforation of oesophagus.

Total 35 Units.

LIST OF SEMINARS IN ENT-HEAD/NECK SURGERY
(1 SESSION OF 1 1/2 HOURS PER TOPIC)

1. Pain in the ear
2. Nasal, obstruction
3. Hoarseness of voice
4. Dysphagia
5. Sore throat

Total 10 Units.

LECTURE LIST OF REHABILITATION
AND PHYSICAL MEDICINE

1. Definition, scope and team work in physical medicine and rehabilitation.
2. Natural physical means in physiotherapy.
3. Artificial physical means in Physiotherapy
5. Means of rehabilitation
6. Prosthetics and orthotics

Total 6 Units.
LIST OF SEMINARS IN PHYSICAL MEDICINE AND REHABILITATION
(3 SESSION OF 1 1/2 HOURS ON)

1. Assessment of patients complaints.
2. Impairment of function and disability

Total 6 Units.

LIST OF LECTURES IN RADIOLOGY AND IMAGING

1. X-ray physics
2. Radiation protection
3. The normal chest x-ray
4. Pathological conditions of the chest.
5. The normal x-ray of the gastro-intestinal tract, (plain abdomen and contrast procedures).
   * Pathological conditions of the gastro-intestinal tract.
6. The normal image of liver, biliary system and pancreas scans, USS, contrast procedures.
7. Pathological images of liver, biliary system and pancreas.
8. The normal images of the urinary system, x-rays, scans and contrast procedures.
9. Cardiovascular radiology
10. Radiology of the genital system
11. Mammography
12. The normal x-ray and imaging of the nervous system scans and contrast procedures.
13. Pathological x-rays and images of the nervous system
14. Normal x-rays and images of bone and joints
15. Pathological x-rays and images of bone and joints
16. Introduction to nuclear medicine
17. Nuclear physics of the endocrine system
18. Nuclear physics of the cardio-vascular system

Total 20 Units.
LIST OF SEMINARS IN RADIOLOGY
(2 SESSIONS OF 1 1/2 HOURS PER TOPIC)

1. Respiratory system
2. Gastro-intestinal tract
3. Musculo-skeletal system
4. Genito-Urinary system
5. Nuclear medicine (cardio-vascular, urinary system).
6. Nuclear medicine (endocrine and skeletal system).

Total 12 Units.

LIST OF LECTURES IN FORENSIC MEDICINE

1. Identification
2. Death and post mortem changes
3. Medico legal examination of blood stains
4. Wounds
5. Head injuries
6. Asphyxia
7. Burns
8. Fire arm injuries
9. Sexual offences
10. Infanticide
11. Pregnancy and abortion
12. Medical ethics and medical malpractice

Total 12 Units.
LECTURE PROGRAMME FOR ANAESTHEISA

1. \( \text{O}_2 \) and \( \text{CO}_2 \) carriage in the blood and regulation of respiration.
2. Pharmacology of i.v. anaesthetic agents
4. Introduction to anaesthesia
5. Pre-anaesthetic assessment
6. Pre-medication
7. Choice of anaesthesia
8. Tracheal intubation
9. Pain and peri-operative pain relief
10. Mechanical ventilation
11. Ventilators
12. Normal neuromuscular transmission
13. Neuromuscular blocking drugs
14. Pharmacology of local anaesthetics
15. Local anaesthetic techniques
16. Intensive care general principles
17. Fluid therapy: crystalloids, colloids and blood transfusion
18. Central venous cannulation and parenteral nutrition.
19. Monitoring and diagnostic procedures in the ICU.

Total 20 Units.

LIST OF SEMINARS IN ANAESTHEISOLOGY
(1 SESSION OF 1 1/2 HOURS PER TOPIC)

1. Acid /base balance and derangements.
2. Pulmonary functions
3. Acute pulmonary failure
4. Resuscitation (NCPR).

Total 8 Units.
TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Teaching units per student</th>
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<tr>
<td>Obst. / Gynaecology lecture course</td>
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<td>Obst. / Gynaecology seminar and tutorial courses</td>
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### Teaching Units in the Academic Department of Obstetrics and Gynaecology

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**Total = 972**
OBSTETRIC –GYNAECOLOGY LETURE COURSE

The course booklet I (copy attached)
The course booklet II
Obstetrics and Gynecology in History
Obstetrics and Gynaecology-Applied anatomy
The menstrual cycle
Obstetrics and Gynaecology-Terminology
Obstetrics and Gynaecology in Islam.
The perinatal record I
The perinatal record II
Perinatal care I
Perinatal care II
Fertilization, implantation and foetoplacental unit.
Embryology
Congenital anomalies
Gynae history and physical examination
Obstetric procedures.
Gynaecological procedures.
Maternal physiology in pregnancy I
Maternal physiology in pregnancy II
Maternal physiology in pregnancy III
Assessment of gestational age
Sexually transmitted diseases I
Sexually transmitted diseases II
Assessment of foetal well being in pregnancy
Abnormal vaginal bleeding
Small and big for dates.
Diseases of the vulva I & II
Diseases of the vagina I & II
Diseases of the cervix I & II
Diseases of the uterus I, II, III
Labour and delivery I & II
Presentation & positions.
Rh and other isommunization in pregnancy.
Bleeding in early pregnancy
Abortion
Trophoblastic diseases.
Ectopic pregnancy
Diseases of the ovaries I & II
Pelvic inflammatory disease
Endometriosis and adenomyosis
Pregnancy induced hypertension
Antepartum haemorrhage
The normal puerperium
Puerperal sepsis
Pain relief in labour
Management of prolonged labour
Glucose tolerance in pregnancy
The Heart in pregnancy
AIDS in Obst/Gynaecology
Genital Tuberculosis
The normal newborn
Birth injuries to the newborn.
Birth injuries to the mother and ruptured uterus.
Anaemia in pregnancy
Infertility I, II, III
Contraception I & II
Displacement of uterus and retroversion
The membranes and amniotic fluid.
Induction of Labour.
Amenorrhea
Ovulation
Examination of the breasts and breast diseases.
Genital prolapse
The umbilical cord
Multiple gestation
IVF and GIFT
The puberty
The menopause
Congenital malformations II
Normal lactation
Abnormal lactation
Fistulae
Colposcopy, Hysteroscopy
Dysmenorrhea and premenstrual tension
Stress incontinence
D.V.T.
Medical Disorders in pregnancy I, II, III
TORCH
Disorders of sex differentiation.
Placental hormones
Obstetric shock
Dysmenorrhea and premenstrual tension
Urinary stress incontinence
Deep vein thrombosis.
Paediatric gynaecology
Genetic disorders
Laparoscopy
Cytology
Therapeutics  1. Introduction  2. Antimicrobial treatment
Mechanism and stages of labour
Therapeutics - Tocolytics
Foetal head and pelvic measurements
Management of prolonged labour
Clotting disorders in obst & Gyn.
Therapeutics – Teratogens.
P.P.H.
Therapeutics prostaglandins.
Hirsuitism
Gyn. Microsurgery
Psychological aspects of obst & Gyn.
Surgical disorders in pregnancy I & II
Therapeutics – antihypertensives.
X-ray and radiotherapy in Obst & Gyn.
Galactorrhoea
Physiotherapy in Obst. & Gyn.
Surgical disorders in pregnancy I & II
Therapeutics – Antihypertensive
X-ray and radiotherapy in Obst. & Gyn.
Physiotherapy in Obst & Gyn.
Therapeutics – Anticonvulsanis.
Therapeutics – Oxytocics.
Therapeutics – sex hormones
OBSTETRICS/ GYNAECOLOGICAL
SEMINAR AND TUTORIAL COURSE UNITS

- Physical and history examination in pregnancy
- Family planning – investigation of infertility
- Assessment of mother and fetus
- Antenatal booking follow up
- Ectopic pregnancy
- Trophoblastic disease
- RH immunologic disease
- Abortions
- Galactorrhoea
- Amenorrhoea
- Deep veins thrombois
- Hirsutism
- Normal and abnormal presentations
- Breech presentation
- Bleeding in early pregnancy
- Mechanisms of labour
- Pelvic assessment
- Induction of labour
- Partogram
- Fetal heart monitoring
- Prolonged labour
- Vacuum and forceps
- Caesarian section
- Episiotomy
- Antepartum and post partum haemorrhage
- Multiple pregnancy
- Prematurity, post maturity
- Lower abdominal pain
- Bronchial asthma in pregnancy
- Diabetes in pregnancy
- Hypertension in pregnancy
- Anemia in pregnancy
- Epilepsy in pregnancy
- Physical examination in gynaecology
- History examination in gynaecology
- Common benign disorders of the cervix
- Common benign disorders of the uterus
- Gynaecological malignancies
- Cystocele
- Rectocele
- Urethrocele
- Vaginitis
- Leiomyoma
- Abdominal masses
- Endometriosis
- Instruments
- Ultrasonography

Total 56
PROBLEM SOLVING
All the curriculum of obstetrics and gynecology is included into 20 problems to be solved by the students themselves under supervision during the main and revision courses. Each group of students runs 28 preparatory sessions and attends 28 panel discussions in order to solve these problems.

CLINICAL ATTACHMENT:
Every student spends 3-4 hours daily attached to a clinical team and sharing under supervision all the activities including: clerking, follow up, filling up laboratory form, case presentation, assisting in obs/gyn procedures.
The student has to complete a (log book) containing a minimal number of all skills required.
## Table of Contents

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Table of Contents</th>
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<tbody>
<tr>
<td>1.</td>
<td>Introductory course</td>
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## PEDIATRIC TEACHING IN THE INTRODUCTORY COURSE

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<th>Time/Unit</th>
<th>Teaching units Given</th>
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<td>Clinical applications</td>
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<td>8</td>
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<td>Child health centers vists</td>
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<td>Library</td>
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PAEDIATRIC TEACHING DURING THE ACADEMIC YEAR

A. Teaching to the whole batch during the whole academic year.
   ✭ This is 44 weeks
   ✭ Two days per week
   ✭ 1 P.M. till 4 p.m.

<table>
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<tr>
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<th>Type of session</th>
<th>Duration of session in Minutes</th>
<th>Number of session</th>
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B. Teaching in a Pediatric term

- The term is 15 weeks
- 6 days a week
- 8 a.m. to 12 mid-day
- 10 nights on call from 4 p.m. to 10 p.m.

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<td>A/E &amp; clinics</td>
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<td>X-ray meeting</td>
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## Pediatric Teaching in the Revision Course

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<th>Number of session</th>
<th>Time/Unit</th>
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<td>15</td>
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THE TOTAL PEDIATRIC TEACHING FOR AN UNDERGRADUATE

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<td>- Iron deficiency anemia&lt;br&gt;- Hemolytic anemia&lt;br&gt;- Purpura&lt;br&gt;- Hemorrhagic disease&lt;br&gt;- Aplastic anemia&lt;br&gt;- Thalassaemia&lt;br&gt;- Sickle cell disease</td>
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<td>- General principles of treating&lt;br&gt;- Pediatric malignancies&lt;br&gt;- Hematological malignancy in children&lt;br&gt;- Tumours in children</td>
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<td>- Croup &amp; URTI&lt;br&gt;- Acute bronchiolitis&lt;br&gt;- Pneumonia&lt;br&gt;- Tuberculosis&lt;br&gt;- Bronchial asthma&lt;br&gt;- Disease of pleura&lt;br&gt;- Cystic fibrosis&lt;br&gt;- Cong. Anomalies of resp. tract&lt;br&gt;- Tonsillitis&lt;br&gt;- Otitis media</td>
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<td>- Measles&lt;br&gt;- German measles&lt;br&gt;- Mumps&lt;br&gt;- Varicella zoster&lt;br&gt;- Herpes&lt;br&gt;- Infectious mononucleoiss</td>
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<td>• Adrenal</td>
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<td>• Gonad</td>
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<td>• S.L.E.</td>
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<td>• U.T.I.</td>
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<td>• Glomerular disease</td>
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<td>• Tubular disease of the kidney</td>
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<tr>
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<td>• Renal failure, acute &amp; chronic</td>
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<tr>
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<td>• Systemic diseases in relation to kidneys</td>
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<td>• Rheumatic disease &amp; rheumatic fever</td>
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<td>• Meningitis</td>
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<td>• Cerebral palsy</td>
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<td>• Fluids &amp; electrolytes</td>
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<td>• Chronic diarrhea &amp; malabsorption</td>
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<td>• Congenital gastro intestinal obstruction</td>
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<td>• Acute abdomen</td>
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</table>
All clinical sessions whether it is clerking, clinical presentation, problem solving etc.. nearly cover the whole pediatric lecture programme putting it to clinical practice.
LIST OF BOOKS RECOMMENDED TO THE STUDENTS

PRESCRIBED
1. Nelson essentials of pediatrics (Saunders).
2. Current pediatric diagnosis & treatment Hathaway, Groothins, Hay; and Paisley (Large Medical Book).

HIGHLY RECOMMENDED (Reference book) (Library use).
1. Nelson textbook of pediatrics
2. Forfar textbook of pediatrics
5. Community child Health . G. Vimpani & T. Parry

RECOMMENDED (Reference Book) (Library use).
1. Care of the Newborn. Craig
2. Textbook on Neonatology. Roberrson
3. Neurological examination of the infant & Newborn . Amid-Tison
4. Textbook of pediatric infectious diseases . Feigin and Cherry
5. Haemtology of infancy & childhood . Nathan and Oski
6. Pediatric Cardiology . T. Baker & D. Mc Namara
7. Pediatric Nephrology . M. Holliday
10. Medical Genetics for students of medicine. Alan Emery
Family and Community Medicine Clerkship Course

Course Title: Family Medicine

Course Format
Family & Community Medicine – Ambulatory & community Based.

Clerkship/Rotation student level: Fifth (Final) Year Medical Students

Course Supervisor: Prof. Maged S. Khattab
MRCGP (UK), MHPE (USA), MD (SCU)

Course Coordinator: Dr. Abdulnaser A. Abuzaid
Consultant Family medicine
Introduction

In this course the medical students will be exposed to the principles, content and practice of the family medicine in the community. The course emphasizes the central characteristics and core competencies of the discipline of family medicine. The students will learn the difference in practice of medicine between the hospital and Primary Health Care settings. The students will be trained in Primary Health Care Centers (PHCCs) to understand and practice concepts of primary, comprehensive and continuing care to the individuals, families and to the community by and large. The students will learn also specific problem solving skills that enable them to use epidemiological knowledge of community prevalence of illness and risk factors to make their hypothesis and diagnosis about the problems presented in PHC settings. During the course the students will see how the family physician views his or her practice as a 'population at risk' and organizes the practice to ensure that patients' health is maintained whether or not they are visiting the practice. The art of family physician in providing person centered care and holistic approach using the bio-psychosocial model of illness will be demonstrated to the student during the clerkship period.

General objectives
The students should be able to:
1. Describe the concept of Primary Health Care and Family Practice.
2. Interview and communicate properly with patients presenting in PHC settings, take history and properly examine them.
3. Recognize and manage with guidance common, chronic and psychosocial health problems in PHC settings according to up to date evidence based protocols and guidelines.
4. Assess the health status and various risk factors in patients and different family members and intervene by providing anticipatory guidance, evidence based health promotion, prevention, and health education.
5. Assess the health needs of the community and special groups and demonstrate an understanding of the demographic, epidemiological, environmental and cultural factors affecting these needs and the way they modify peoples' use of the health care services.
6. Demonstrate an understanding to family dynamics sufficient to allow intervention in patients’ family context particularly in chronic, psychosocial and terminal illnesses.
7. Demonstrate appropriate skills of using equipments, office procedures and special tests available in PHC settings.
8. Recognize the role of PHC team and appreciate the value and principles of team work and collective responsibility.
9. Recognize the importance of keeping sound medical records and making appropriate referrals to other levels of care for preserving the effectiveness of continuity of care.
10. Adhere to contemporary ethical principles of medical practice, respect patients’ autonomy, confidentiality, perception of experience of illness and enable him to make informed choice.
11. Acquire some skills for assessing PHC programs using some quality tools and methods.

Intermediate objectives (Course’ activities)
In order to achieve the above mentioned general objectives of the course the students will be exposed to participate in the following activities (services and programs in PHC)
- Clinical activities
- Chronic disease program
- Child health care program
- Women health care program
- Community Center for elderly (CCFE)
- Senior Citizen Clinic
- Health Information system in PHC
School health program
Travel Clinic
Communicable disease program
Quality office
Medical fitness
Practice practical procedures

Specific objectives
(Specific objectives help as a guide for both the trainers and the trainees to highlight the exact measurable objectives of training)
- See appendix(1) for specific objectives of some activities
- Appendix (2) list of practice practical procedures

Organization and implementation of the clinical and practical part of the course
- Dubai Medical college to send to Course Coordinator –PHC professional development office a list of medical students (n=13-14) to be enrolled in the family and community medicine clerkship every 15 weeks
- The students will divided into four groups (1,2,3,4) each of (3-4 students) to be distributed to the four PHC regions
- The four regional managers and their deputies will be responsible for implementing the training at the regional level
- Each student will be allocated to special mentor who will guide and supervise the student throughout the various activities of the course
- The students in each group will rotate among the different program and services organized at the regional level

Time Schedule of group activities
- Students spend 5 days per week for educational activities
- The time allocation of the 5 days will be distributed as follows:
  - three days per week for PHCC activities and programs (both curative and preventive services and programs)

Students’ visits program

<table>
<thead>
<tr>
<th></th>
<th>Travel clinic</th>
<th>Physical fit.</th>
<th>Quality office</th>
<th>School health</th>
<th>Geriatric (CCFE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>W 2,3</td>
<td>W4,5</td>
<td>W6,7</td>
<td>W 8</td>
<td>W9</td>
</tr>
<tr>
<td>Group 2</td>
<td>W4,5</td>
<td>W2,3</td>
<td>W8,9</td>
<td>W6</td>
<td>W7</td>
</tr>
<tr>
<td>Group 3</td>
<td>W6,7</td>
<td>W8,9</td>
<td>W2,3</td>
<td>W 4</td>
<td>W5</td>
</tr>
<tr>
<td>Group 4</td>
<td>W8,9</td>
<td>W6,7</td>
<td>W4,5</td>
<td>W2</td>
<td>W3</td>
</tr>
</tbody>
</table>

W= Week no.

Students Portfolio- Log book
- Each student should keep a log book for all the activities he is performing during the course
- The log book for each student should include the following tasks for formative evaluation during the course:
  - Five case studies- evidence based
  - Report on ten babies seen in the well baby clinic with the growth charts and the immunizations given to them
  - Report on effectiveness of immunization program and cold chain at PHCC level
  - Report on five ante-natal visits
  - Report on one school health visit
  - Report on travel clinic
  - Report of role and activities of quality office (group report)
  - Report on visit to geriatric center
  - Report on one visit to medical fitness clinics
- Each group of students in each region to conduct audit of certain clinical condition.
- All students should attend and participate in the day release course of postgraduate family medicine training program and CME activities at the PHC and regional levels
The theoretical part of the course

Course lectures’ program

<table>
<thead>
<tr>
<th>Health services</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>? PHC and Family Medicine</td>
<td>1</td>
</tr>
<tr>
<td>? Primary health care team</td>
<td>1</td>
</tr>
<tr>
<td>? Medical records and information system in PHC</td>
<td>1</td>
</tr>
<tr>
<td>? Communication skills</td>
<td>1</td>
</tr>
<tr>
<td>? Consultation skills in PHC</td>
<td>2</td>
</tr>
<tr>
<td>? Well baby clinic</td>
<td>1</td>
</tr>
<tr>
<td>? Immunization program</td>
<td>2</td>
</tr>
<tr>
<td>? Periodic medical examination and evidence based health</td>
<td>1</td>
</tr>
<tr>
<td>? maintenance protocols</td>
<td>1</td>
</tr>
<tr>
<td>? Principles and tools of quality</td>
<td>2</td>
</tr>
<tr>
<td>? Medical Audit</td>
<td>1</td>
</tr>
<tr>
<td>? Risk management in PHC</td>
<td>1</td>
</tr>
<tr>
<td>? Women health care programs in PHC</td>
<td>2</td>
</tr>
<tr>
<td>? Integrated management of childhood illnesses in PHC</td>
<td>1</td>
</tr>
<tr>
<td>? Approach to child with cough and difficulty of breathing</td>
<td>1</td>
</tr>
<tr>
<td>? Approach to child with sore throat and ear pain</td>
<td>1</td>
</tr>
<tr>
<td>? Approach to child with diarrhea</td>
<td>1</td>
</tr>
<tr>
<td>? Principles of chronic disease management in PHC</td>
<td>1</td>
</tr>
<tr>
<td>? Approach to diabetic patients in PHC</td>
<td>1</td>
</tr>
<tr>
<td>? Approach to hypertensive patient in PHC</td>
<td>1</td>
</tr>
<tr>
<td>? Approach to asthmatic patient</td>
<td>1</td>
</tr>
<tr>
<td>? Approach to patient with back pain in PHC</td>
<td>1</td>
</tr>
<tr>
<td>? Prevention of coronary heart disease</td>
<td>1</td>
</tr>
<tr>
<td>? Approach to patient with psychosocial problems in PHC</td>
<td>2</td>
</tr>
<tr>
<td>? School health program</td>
<td>1</td>
</tr>
<tr>
<td>? Travel health services</td>
<td>1</td>
</tr>
<tr>
<td>? Communicable disease program in Dubai</td>
<td>1</td>
</tr>
<tr>
<td>? Evidence based medicine</td>
<td>2</td>
</tr>
<tr>
<td>? Principles and methods of health education in PHC</td>
<td>1</td>
</tr>
<tr>
<td>? Social services in the community</td>
<td>1</td>
</tr>
</tbody>
</table>

Total lectures hours 35

Methods of teaching and learning

? One to one teaching method in the consultation room for interviewing, clinical and problem solving skills

? Group teaching and learning methods for theoretical content, peer review, updates, attitude and ethics..etc

? case presentations

? seminars

? problem based tutorilas

? role play

? lectures

? Evidence based medicine

? Journal club

Methods of Assessment

1. Continuous Assessment (50%)

? Log book activities 25%

? Audit project 10%

? OSCE 10%

? Oral 5%

2. Final Assessment (50%)

? Short essay questions 10%

? Modified Essay Questions 20%

? MCQs 20%

N.B. Continuous Assessment is done during and the end of each rotation while final assessment is conducted at the end of the year.

Bibliograph

1. Fraser, Clinical methods in General Practice.

2. Rakel, textbook of Family Practice

3. Gorol, Primary Care Medicine

4. Hoekelman, Primary Paediatric Care

5. Taylor Family Practice Textbook

6. Pendleton, The consultation

7. Cassens, Preventive Medicine and Public Health (NMS)

8. Swanson, Family Practice Review

9. Bope MCQs Book (Based on Rakel)
Appendix (1)
Specific objectives of some course activities

**Child health care program**
*Well baby clinic*
- Identify and describe the health status and health needs of children in his community and the various factors, whether hereditary or environmental, which influence their health.
- Carry out basic methods of assessment of physical, intellectual, emotional and social development of children at different age groups and be able to recognize deviation from normal and the need for referral for more elaborate or specialized assessment.
- Appropriate use of child health record to monitor children health regarding growth, development, immunization and feeding and to conduct relevant screening examination.
- Use appropriate communication and consultation skills in talking to mothers and counsel her regarding the health, feeding or illness of their children.
- Demonstrate his/her knowledge of the roles of primary health care team and other helping agencies in the care of children in his community, whether well or ill.
- Demonstrate his knowledge regarding national infant screening program.

**Immunization program**
- Identify the objectives, structure and process of the immunization program in PHC.
- Identify the role of PHC team in conducting the immunization program.
- Identify the registration system of the immunization program, methods of calculating target population and methods of follow up of defaulters.
- Identify the cold chain of immunization at PHCC level methods of quality monitoring of its effectiveness.

**Women health care program**
- Ante-natal/post natal care program
- Identify the objectives, structure and process of ante natal and post natal program in PHC.
- Identify the role of PHC team and in conducting the program.
- Appropriate use of ante-natal and post natal cards and registration system for monitoring the program.

**Cervical screening program**
- Demonstrate his/her knowledge of the most up to date evidence based guidelines for cervical screening program.
- Identify and practice appropriate procedures and technique of Pap smear.
- Interpret results of Pap smear.

**Breast cancer screening program**
- Demonstrate her knowledge of the most up to date evidence based guidelines of breast cancer screening.
- Identify and practice technique of breast self examination and breast clinical examination.

Appendix (2)
List of Basic Clinical Skills & Practice Practical Procedures

Category of skills and office procedures
- **E= Essential skills** - All students should demonstrate competency in acquiring these skills.
- **F= Favorable skills** - Optional for discretionary marks.

- Communication skills
- Consultation skills
- History taking and clinical reasoning in family practice
- Biometric parameters
- Height, Weight, Waist-Hip ratio, BMI
- BP, Pulse, Respiratory Rate
- Chest, Heart, abdominal exam
- CNS examination
- Musculoskeletal system examination
- Pelvic examination
- Breast self examination
- Examine feet of diabetic patient
- Pap smear
- Speculum examination
- Use peak flow meter
- Use of nebulizers
- Use of Auroscope
- Use of inhalers
- Use of nebulizers
- Use and interpreting of growth charts
- Suturing simple wounds
- Inserting an IV line
- Venesection
- Proctoscopy
- Sigmoidoscopy
- Fundoscopy
- Taking an ECG
- Basic ECG interpretation
- Immunization schedule and application
- Oral rehydration therapy administration
- Giving intramuscular, intravenous, subcutaneous injections
- Simple plaster application for immobilization
- Visual acuity and colour tests
- Tuning forking
- Infant examination and assessment
- Growth monitoring
- Developmental assessment
- Milestones
- Nutritional status
- Adequacy of breast feeding
- Immunization status and catch up
- Near patient testing e.g. urine dip sticks, reflo
- Formulation of an assessment of the patient
- Developing management plan
- Behavioural change
- Patient education
- Apply health maintenance protocols
- Pharmacotherapy- writing a prescription

**Appendix (3)**

PHC Staff participating in teaching (Faculty)

- **Prof. Maged S Khattab**
  - Course supervisor
- **Dr. Abdulnaser A AbouZaid**
  - Consultant Family Medicine
- **Dr. Hani M Swidan**
  - Mentor/trainer/lecturer
  - PHC manger- region (1)
- **Dr. Ashraf M Swidan**
  - Mentor/trainer/lecturer
  - PHC manger- region (2)
- **Dr. Moulham S Ashtar**
  - Mentor/trainer/lecturer
  - PHC manager- region (3)
- **Dr. Mohammed Naser Fargaly**
  - Mentor/trainer/lecturer
  - PHC manager-region(4)
- **Dr. Samia M Fargaly**
  - Mentor/trainer/lecturer
  - Deputy manager-region (1), In charge – El Mamzar PHCC,
  - Specialist senior registrar-Family Medicine
- **Dr. Ebtihal A Darwish**
  - Mentor/trainer/lecturer
  - Deputy manager-region (2), In charge-Al Tower PHCC,
  - Specialist registrar Family Medicine
- **Dr. Fatma M El Sayed**
  - Mentor/trainer/lecturer
  - Deputy manager-region (3), In charge – Al Mankhool PHCC,
  - Specialist registrar Family Medicine
- **Dr. Amna Khamis Al Mazroae**
  - Mentor/trainer/lecturer
  - Deputy manager-region (4), In charge- Al Safa PHCC
- **Dr. Ahmed I Kalpan**
  - Deputy manager-region (4), In charge- Al Safa PHCC
Appendix (4)
Scope of reference of PHC teaching staff

Program supervisor

Grade: University professor of family medicine

Reporting to: Clinical dean – Dubai college of medicine

Qualifications: Medical Doctoral or Membership in family medicine.

Have got adequate experience in undergraduate education in family medicine. Additional experience or certificate in medical education is preferable.

General description of task:
The program supervisor is responsible for planning, implementing the training program. The principle task is to support the development of the training program. He encourages autonomy in the learners and develop their sensitivity to patients’ needs. He helps in professional development of trainers as well as trainees in his program.

Functions/duties
- Plan and continuously develop program objectives, content, teaching/learning methods and assessment tools
- Organize and monitor program implementation
- Select appropriate mentors, trainers and lecturers
- Support, advice and monitor performance of mentors, trainers and lecturers.
- Plan and conduct formative and summative assessment and submit the concerned reports to Dubai college of medicine.
- Participate in teaching and training.
- Submit annual report to Dubai college of medicine about program needs, performance and implementation.
- Participate in college board meetings

Program coordinator

Grade: Consultant family medicine

Reporting to: Program supervisor

Qualification: Membership or Medical Doctoral in family medicine. Experience in family medicine education and training is preferable.

General description of task
The program coordinator assists the program supervisor in developing, planning and implementing the training program. His principle task is to organize and coordinate the training activities. He ensures the easy and smooth running of the program. He helps in the professional development of the trainers and trainees.

Functions/duties
- Assist in planning and implementing the program
- Assess and mobilize resources for education and training
- Coordinate program activities
- Monitor program implementation
- Support, advice and assess performance of mentors, trainers and lecturers
- Participate in program and students evaluation
- Participate in teaching and training.

The mentor/trainer

Grade: Consultant, senior specialist registrar or specialist registrar

Reporting to: Program coordinator

Qualifications: Any postgraduate qualifications in family medicine or related specialties or equivalent recognized experience in PHC and family medicine. Prior experience in teaching and education is preferable.

General description of task:
The mentor/trainers is a key fundamental person for the success of the training program. He works directly with the students at the grass root level for guidance, supervising clinical and practical training in
PHCCs. They act as role model for the trainees. He shares his experience with the trainees, promote their professional development and sensitivity to patients’ needs. He works on one to one basis or with small groups of trainees/students.

**Functions/duties**
Guides students to achieve objectives of the program
Helps and support students to achieve their own personal learning objectives and develop their own portfolio of learning
Conduct clinical training for students on his own patients

Helps students to acquire adequate communication and consultation skills
Helps students to develop adequate basic and problem solving clinical skills
Preserves patients’ confidentiality and autonomy during training
Organizes the process of training for his trainees/students both inside and outside the PHCC/Clinic.
Conducts tutorials with the students and promote good record keeping and team work approach
Reviews regularly the students’ log book and conducts periodic students appraisal
He works as role model and promotes evidence based practice.
Cardiology Curriculum  Course

Organizer

Prof. J. M. Muscat – Baron

Lecture Course given in 3rd year
**Cardiology curriculum General**

**Objectives**

The program is designed to give the student:

1. A concise review of the essential anatomy and physiology of the CV system.
2. An understanding of the altered anatomy and physiology.
3. An ability to take a good and comprehensive history of CV disorders.
4. An ability to carry out a good and adequate examination of the CV system and an ability to correlate this with the basic pathology and altered function.
5. An understanding of the essential investigations, their appropriate choice and their limitations.
6. Familiarization with the appropriate pharmacological management.
7. Familiarization with other possible non pharmacological methods of management.
8. An ability to explain the clinical phenomena on a basic understanding of the mechanisms involved in cardiac function, dysfunction and their management.

**Organizers and Coordinators**

- Prof. J. M. Muscat – Baron
- Dr. Afzal Yusuf Ali
- Dr. Nooshin Bazargani

**The CV Course**

- Organization into 7 modules (see below)
- Each module is taught by
  - Lectures - approximately 5 hours per module (Total of 35 hours).
  - Clinical attachments – 5 weeks, 5 days per week, approximately 4 hours per day (Total of 100 hours).
- Clinical attachments involve
  - Attending at ward rounds,
  - Demonstration of physical signs,

- Clarking and examining patients,
- Discussion of clarked patients, and
- Tutorials
- Attending and watching investigation such as ECG, echoes, cardiac catheterizations.
- All this carried out in small groups, no larger than 6 students

**Modules**

1. Cardiac function and dysfunction - cardiac failure
2. Hypertension.
3. Ischemic heart Disease
4. Cardiac Arrhythmias
5. Alveolar Heart Disease
6. Congenital heart Disease
7. Miscellaneous –
8. Heart disease in Pregnancy
9. Thromboembolic disease
10. Pericardial disease

**Essential Components of Modules**

1. Relevant anatomy
2. Relevant physiology
3. Description of the pathological process
5. Relevant investigations- enumerate, describe and justify
6. Management - Prevention, pharmacological, non pharmacological and surgical.

**Modes of Instruction**

- lectures 3 hours
- Morning attachments (5 weeks – 8.00 to 12.00)
  - clinical cases, ward rounds, tutorials, small group teaching.

**Morning Sessions**

- The following staff is responsible to supervise the morning attachments (between 8.00 and 12.00) and to conduct the discussions and tutorials during the 5 week attachment to the cardiology unit at Dubai hospital.
- Saturday – Prof. Baron / Dr. Nooshin
• Sunday- intensive care unit- Dr. Baker/ Dr. Ashraf
• Monday – Prof. Baron / Dr. Nooshin.
• Tuesday – prof. Baron.
• Wednesday – Dr. Yusufali.
• Emphasis should be on seeing cases, taking histories and examinations. Particular attention to be given to physical examination methods.
• Detailed discussion of cases seen and presented by students.

Morning Tutorials
• The morning tutorial and discussions to cover the following subjects mainly but not exclusively. Allowance made to take advantage of clinical material present on the wards;
  • Week 1- Cardiac function and failure
  • Week 2- Hypertension.
  • Week 3- Ischemic heart disease
  • Week 4- Arrhythmias
  • Week 5 – Congenital heart disease and thromboembolic disease.

Module 1 Cardiac function and dysfunction
Cardiac failure

Module 1 Cardiac Function and Dysfunction Anatomy
• General description of the heart.
• Cardiac muscle – the structure of the myocardial cell
• Differentiation of myocardial cells and their function.
• Conduction system of the heart.
• Cardiac contractile proteins- myosin and troponin

Module 1 Cardiac Function and Dysfunction
Physiology and Pathophysiology
• The function of the myocardial cell
  ▪ Automaticity
  ▪ Contractility
• The nervous control of the heart
  ▪ sympathetic
  ▪ parasympathetic
• Humor control of the heart
  ▪ sympathetic system
  ▪ RAAS
  ▪ Vasopressin
  ▪ Frank – Starling relationship
  ▪ Concept of preload, after load and contractility
  ▪ The contribution of atrial contraction to ventricular function.
  ▪ Ventricular contractility
  ▪ Cardiac output
    ▪ Ejection fraction (EF)
    ▪ Importance of cardiac rate and stroke volume
  ▪ Adaptive mechanisms of the failing heart
    ▪ Dilatation
    ▪ Hypertrophy

Module 1 Cardiac Function and Dysfunction Pathology
• Conceptual mechanisms for cardiac failure
• Maladaptive mechanisms
• Effect of hypertrophy
• Effect of dilatation
• Effect of over activation of the sympathetic and the RAAS
• Effect of depression of parasympathetic function
• Effect of decreased cardiac output on renal function
• Concept and mechanism of cardiac cachexia
• Concept of R and L sided failure
• Concept of backward and forward failure

Module 1 Cardiac Function and Dysfunction
Clinical Symptoms
• May be asymptomatic or symptomatic
• Functional Class- NYHA classification
• Main symptoms and signs.
• Fluid retention
• increase in weight
• oedema
• ascites
  ▪ Fatigue
  ▪ Decreased exercise tolerance
  ▪ Decreased appetite
  ▪ Loss of weight
Concerns of the pt
- How is the condition affecting his life and activities
- What are his main worries about the condition?

**Module 1 Cardiac Function and Dysfunction**

**Signs**
- General appearance
- Blood pressure
- Arterial pulse
- Venous pulse - Jugular venous pulse
- Pericardium
- Apex
- Auscultation
- Oedema
  - Lower limbs, sacrum
  - Ascites
  - Lung bases
- Enlarged tender liver.

Module 1 Cardiac Function and Dysfunction
Investigations (describe and assess)
- ECG
- Chest X-ray
- Echocardiography
- Other imaging techniques
- Other investigations may be required to establish cause

Module 1 Cardiac Function and Dysfunction Management
- Prevention

Seek and control main causes of HF
- Hypertension
- Ischemic heart disease

Module 1 Cardiac Function and Dysfunction Management
- General measures
- Educate and involve pt 9 and family) in the management
  - Salt intake
  - Regular weighing
  - Exercise
  - Rest
  - Compliance

- Follow up

**Module 1 Cardiac Function and Dysfunction Management**
- Pharmacological
  - Diuretics
  - ACE inhibitors
  - ARBs
  - Beta Blockers
  - Spiranolactone
  - Digoxin
- Find and Treat underlying cause, if possible

**Module 2 Hypertension**

**Module 2 – Hypertension Definition**
- Different classifications
- Guidelines – JNC VI and VII
- Other Guidelines
- Concept of a disease entity or dynamic variable

**Module 2- Hypertension Anatomy**
- Anatomy of the arterial system
- The anatomy of the arterial wall
- The blood supply of the arterial wall.
- Elastic and resistance arteries.
- Concept of the transformation of the intermittent ejection of the blood from the LV into a continuous flow in the arteries.
Module 2- Hypertension Physiology and Pathophysiology

• The need for a BP
• BP= CO (cardiac output) x PR (peripheral resistance).
• Factors affecting the CO
• Factors affecting the PR
• Neurogenic control of the BP - sympathetic, etc.
• Humoral control of the BP - noradrenalin, RAAS, vasopressin, other endocrine, paracrine and autocrine factors.
• Salt intake, weight, alcohol and exercise and BP.

Module 2 – Hypertension Pathology

• Effect on arterial wall
• Effect on LV
• Effect on target organs- brain, eyes, vascular tree, heart, and kidneys.
• Classification into primary and secondary HT.

Module 2- Hypertension Clinical

• Almost always a silent disorder
• Need for regular check of BP at regular intervals throughout life.
• Standardize method of BP taken. Learn technique well. Koratkov’s sounds Record BP readings. Set and aim for targets.
• Clinical effects on the various target organs.
• Record the clinical finding at the first examination to act as a baseline.
• Need for family history.
• Need for regular follow up to aid control.
• Involve patient in the control of his condition.

Module 2- Hypertension Investigation

• Full blood count
• Urinalyses

• Blood urea and electrolytes
• ECG
• Chest X rays
• Echocardiogram
• Other investigations as needed

Module 2 – Hypertension Management

• Can present as an urgency or emergency, when it requires acute and urgent treatment.
• Great majority, a chronic presentation requiring slow titration of medication.
• Can be prevented from developing by the adoption of lifestyle measures.

Module 2 – Hypertension Management

• Confirm high BP several readings after periods of rest.
• Regression towards the mean
• Adopt life style modifications
• Start drugs in low doses and increase gradually until target BP are reached.
• Consider combinations with low doses.
• Regular follow up.

Module 2 – Hypertension Management

• Decide and record target to aim for (look up guidelines).
• Life style modifications and education
• Drug therapy – Pharmacology of main classes of anti hypertensive agents – diuretics, beta blockers, calcium channel blockers, ACE inhibitors, angiotensin receptor blockers.
• Choice of initial agent or agents
• Addition of drugs
• Importance of diuretics in overall management
• Combination therapy
• Problems of compliance
Module 2 – Hypertension Management

- Guidelines – JNC, European, International, etc.
- Main trials – efficacy of drug therapy; head to head comparisons
- Beneficial effects of lowering the BP.

Module 3 Ischemic Heart Disease

Module 3 Ischemic Heart Disease Anatomy
- Detailed anatomy of the coronary arteries
- Concept of end arteries
- Superficial coronary arteries and their penetrating branches.
- Effect of myocardial contraction on coronary flow
- Territorial supply of the LAD, LCX and RCA.
- Concept of L and R dominance.

Module 3 Ischemic Heart Disease Physiology
- Concept of O2 supply and O2 demand.
- Factors affecting O2 demand
- Factors affecting O2 supply
- The bi-product (rate x SBP).
- Normally myocardial metabolism and oxygen extraction.
- Neurogenic and Humoral control of heart rate and BP.

Module 3 Ischemic Heart Disease Pathology
- Causes of imbalance of O2 demand and supply
- Pathology of atheroma
- Risk factors- established and new. Fundamental importance of lipid abnormalities, high BP and cigarette smoking.
- Concept of stable and unstable plaque
- Fissuring of the plaque
- Consequences of fissuring
- Platelet activation

Module 3 Ischemic Heart Disease Clinical Syndromes
- Presentation as
  - Chest pain
  - Cardiac arrhythmias
  - Cardiac failure
  - Combinations of the above
- Chest pain – Classical description.
- Importance of a good and detailed history.
- Physical examination.
- Stable angina
- Unstable angina
- Myocardial infarction
- Concept of acute coronary syndrome (ACS)

Module 3 Ischemic Heart Disease Investigations
- Resting ECG
- Stress ECG
- Echo
- Thallium scan
- Angiography

Module 3 Ischemic Heart Disease Management
- Prevention of the development of the disease
- Prevention of the progression of the disease
- Regression of the disease
- Symptomatic treatment
- Treatment of complications
- Prevention of the development of the disease
- Global control of risk factors
- Importance of cholesterol control
- Life style modifications
- Statin trials
  - Drug control of Ischemia
- Beta blockers
- Calcium channel antagonists
- Nitrates
- ACEI
  - Platelet activation
- Aspirin
- Thienopyridines – clopidogrel and ticlopidine
- Heparin
- GP IIb/IIIa receptor inhibitor

- Protection of the myocardium in acute MI
- ACEI – acutely and long term.
- Re establishing the circulation as soon as possible in ST segment elevation MI
- Fibrinolytic agents.
- Balloon angioplasty
- CABG
- Chronic Ischemia
- Pharmacological
- Balloon angioplasty
- CABG

**Module 4 – Cardiac Arrhythmias**

**Module 4 – Cardiac Arrhythmias Anatomy**
- Conducting system of the heart
- Sino atrial (SA) and atrio-ventricular (AV) nodes
- Bundle branches
- Purkinje’s tissue
- Pacemakers to the heart
- Blood supply to the conduction system
- Neural and Humoral control of conduction

**Module 4 – Cardiac Arrhythmias Physiology**
- Concept of working cells and conducting cells
- Action potentials of working and conducting cells
- Electrolyte movements across cell membranes contributing to the action potential.
- Concept of automaticity
- Factors affecting automaticity
- Function of SA and AV nodes
- Detailed understanding of sinus rhythm and normal conduction

**Module 4 – Cardiac Arrhythmias Pathophysiology**
- increased automaticity – causes and effects
- Abnormal conduction
- Circus movement
- Effect of neuro and humoral input

**Module 4 – Cardiac Arrhythmias the ECG**
- Fundamental importance in assessment of arrhythmias.
- Detailed understanding of the ECG in sinus rhythm
- Learn to read ECG systematically – Rate, locate and describe P, measure the PR interval, locate measure and describe the QRST complex and describe the relationship of the various components.

**Module 4 – Cardiac Arrhythmias Heart Blocks**
- SA
- AV nodal – types
- Bundle branch blocks

Module 4 - Cardiac Arrhythmias Classifications
- Clinical -Tachycardias and Bradycardias
- Pathological

**Module 4 - Cardiac Arrhythmias Clinical Presentation**
- Asymptomatic
- Palpitations – fast, slow or irregular
- Decrease in cardiac output
- Dizziness and other neurological symptoms including coma
- Loss of energy
- Cardiac failure
- Establish underlying cause.

**Module 4 – Cardiac Arrhythmias Clinical Examination**
- Arterial pulse
- Venous pulse
- Apical pulse
- Examination of the heart
**Module 4 - Cardiac Arrhythmias**

**Investigations**
- ECG
- 24 hour Holter monitoring
- Electrophysiological studies

**Module 4 – Cardiac Arrhythmias**

**Management**
- Find and treat underlying cause
- Pharmacological
- Non pharmacological

**Module 4 – Cardiac Arrhythmias Management – Pharmacological**
- Pharmacological properties of main anti arrhythmic agents
- Classification
- Side effects
- Effect on symptoms and survival
- Important clinical trials

**Module 4 – Cardiac Arrhythmias Management – Non pharmacological**
- Pacemakers
- Anti tachycardia pacemakers
- Implantable defibrillators
- Defibrillation

**Module 5 Valvular Heart Disease**

**Module 5 Valvular Heart Disease Anatomy**
- Heart in general
- Individual valves – leaflets and rings
  - Mitral
  - Tricuspid
  - Aortic
  - Pulmonary
- Structure of the valve leaflet
- Blood supply of the valve cusps.

**Valvular Heart Disease Pathology**
- Abnormal structure of the valves according to pathology
  - Stenosis
  - Incompetence (Regurgitation).
- Conditions likely to lead to pathology
  - rheumatic fever,
  - Congenital
  - Infections, trauma.

**Mitral Stenosis**
- Aetiology – almost always rheumatic
- Description
- Relation of symptoms to valve area

**Mitral Stenosis Pathology and Pathophysiology**
- Structure - effect on cusps, commissures, and subvalvular apparatus.
- Effect on pressure and volumes of LA and LV and other chambers
- Pulmonary congestion and pulmonary hypertension
- Consequences of pulmonary congestion
- Consequences of abnormality of structures of valve.

**Mitral Stenosis Clinical Features – Symptoms**
- Dyspnea- classification
- Tendency to chest infections
- Tendency to atrial fibrillation with all it’s consequences.
- Pulmonary hypertension
- Right sides failure

**Mitral Stenosis Clinical Features – Signs**
- Position patient to hear relevant signs.
- Use bell stethoscope at the apex to listen for apical murmur.
• Description of mid diastolic and late diastolic murmur
• Loud first sound
• Opening snap
• P2 sound

**Mitral Stenosis Complications**
- Cardiac failure
- Infective endocarditis

**Mitral Stenosis Investigations**
- ECG
- Chest X rays
- Echocardiography
- Cardiac catheterization

**Mitral Stenosis Prevention**
- Preventing of rheumatic fever
- Prevention of recurrence of rheumatic fever
- Prevention of infective endocarditis

**Mitral Stenoisis Management**
- Treat symptoms particularly Dyspnea
- Control ventricular rate particularly in AF
- Prevent systemic embolisation particularly in AF
- Assess degree and determine time for mechanical relief of Stenosis by balloon valvotomy or surgical valvotomy
Communication Skills Course

Organizer

Prof. J. M. Muscat – Baron

Lecture Course given in 3rd year
OBJECTIVES

1. Establish fundamental importance of subject
2. Present a holistic view of health, allied to appropriate communication skill action.
3. Provide applied theoretical model of interpersonal communication and establishing a systematic structure for analysis of interaction.
4. Promote knowledge and understanding core communication skills central to medical practice.
5. Develop an increased ability to utilize these communication skills in professional contexts.
6. Increase, through use of role play, a sense of critical awareness both of self and others in medical practice.
7. Stimulate development of good communication skills in medical practice.

Communication Skills – Instruments for Assessments
Assessment of action changes in behavior
Self-assessment and report
Surveys of patients’ reactions

Methods of Instruction
Communication skills – Micro training Technique
Process broken down into small identifiable sequences and skills of interaction such as questioning and explaining.
These can be learned and practiced separately
Once learned individually, rebuild into a whole action.

Micro training Technique
Three phases
- Preparation
- Training
- Evaluation

1. Preparation: Identification of the skills necessary in particular professional situations. Realization of how different situations with regard to the patient will demand a different approach.

2. Training: Skill analysis (verbal) – lecture and reading.
   Skill Discrimination: practical examples of skill in action written examples.
   Skill practice:
   Practice in a safe environment
   Focused feedback
   Critical assessment by self and other

3. Evaluation
   Assessment of actual changes in behavior
   Self-report and assessment
   Surveys of patients’ reactions

Course Structure
Lecture program given in 3rd year – nine(9) hours
Practical training throughout the clinical clerkships

Lectures
1. Introduction
2. Communication as a skilled behavior in medical education and practice.
3. Model of interpersonal communication.
4. Non verbal communication skills
5. Communication Skills
6. Questioning skills.
7. Listening skills
8. Counseling skills
9. The medical consultation.

Practical
- Consultation with real patients
- Mock consultations with surrogates
Throughout the whole clinical course during the clerkships

Assessment and Evaluation
Throughout the clinical course
Final Examination.