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INTRODUCTION

Mission:

Competitive practice of Radiology with holistic approach, provide services to the patients through effective and efficient education of the staff, research, publications and other useful means.

Professional Values:

Professionalism, total quality and science culture, hard work, group work, discipline and respect for others, Objective oriented.

Quality Policy and Quality Objectives: To provide effective and efficient delivery of education, patient diagnostic and therapeutic services and technical expertise through competent task based management, full participation, cooperation, confidence, teamwork and innovation.

a). Education.

- i). The students and trainees should be satisfied with every interaction of staff of Radiology Department/ King Edward Medical University /Mayo Hospital.
- ii). All education given is aimed at improving the skills.
- iii) Continuous improvement is exercised in all education programs leading to periodical revision of curriculum.
- iv) Arrange logistics to run the education process.

b). Patient Care Services.

- i). The patients and their attendants should be satisfied with every interaction of the staff of KEMU/MH.
- ii). The opinions of the patients are valued and respected.
- iii). Make all efforts to meet the needs of the patients, through institutional or community resources.

c). Diagnostic Procedures.

- i). Every Procedure should be done right the first time, on time and every time.
- ii). Continuous improvement and innovations should be exercised in skills, technology, material and techniques.
- iii). The errors and complications must be recorded, discussed and removed immediately after first notice.

- iv). Every staff member must endeavor to continuously enhance his/her competency and moral values.
- v). Philosophy of division of jobs at work location and work stations is clearly understood and applied.
- vi). All jobs/assignments carried are "Task Based".

d). Staff Behaviors.

- i). Every staff member must endeavor to continuously enhance his/her competency and moral value.
- ii). Every staff member should be waste conscious and should strive for their elimination, including time, efforts, and money.
- iii). Time keeping, uniform behavior with others and professional competence/performance should be monitored, recorded and improved.
- iv). No two are equal, discipline is maintained.
- v). Remember if you are not a problem solver then you are automatically considered to be problem creator.

History of the Department



Radiology: Outside view of Department

Establishment of the Department

Department of Radiology was established in 1890. Dr Muhammad Alam was the first Head of Department when Pakistan came into being.

This department was established as Lala Ramji Dass X-Ray Extension in 1890. Initially conventional Radiography was started in this Block but with the passage of time and new advancement in the diagnostic Radiology this department achieved the present status. Now from conventional Radiography through Fluoroscopic Radiography and Ultrasound this department is catering services in Color Doppler

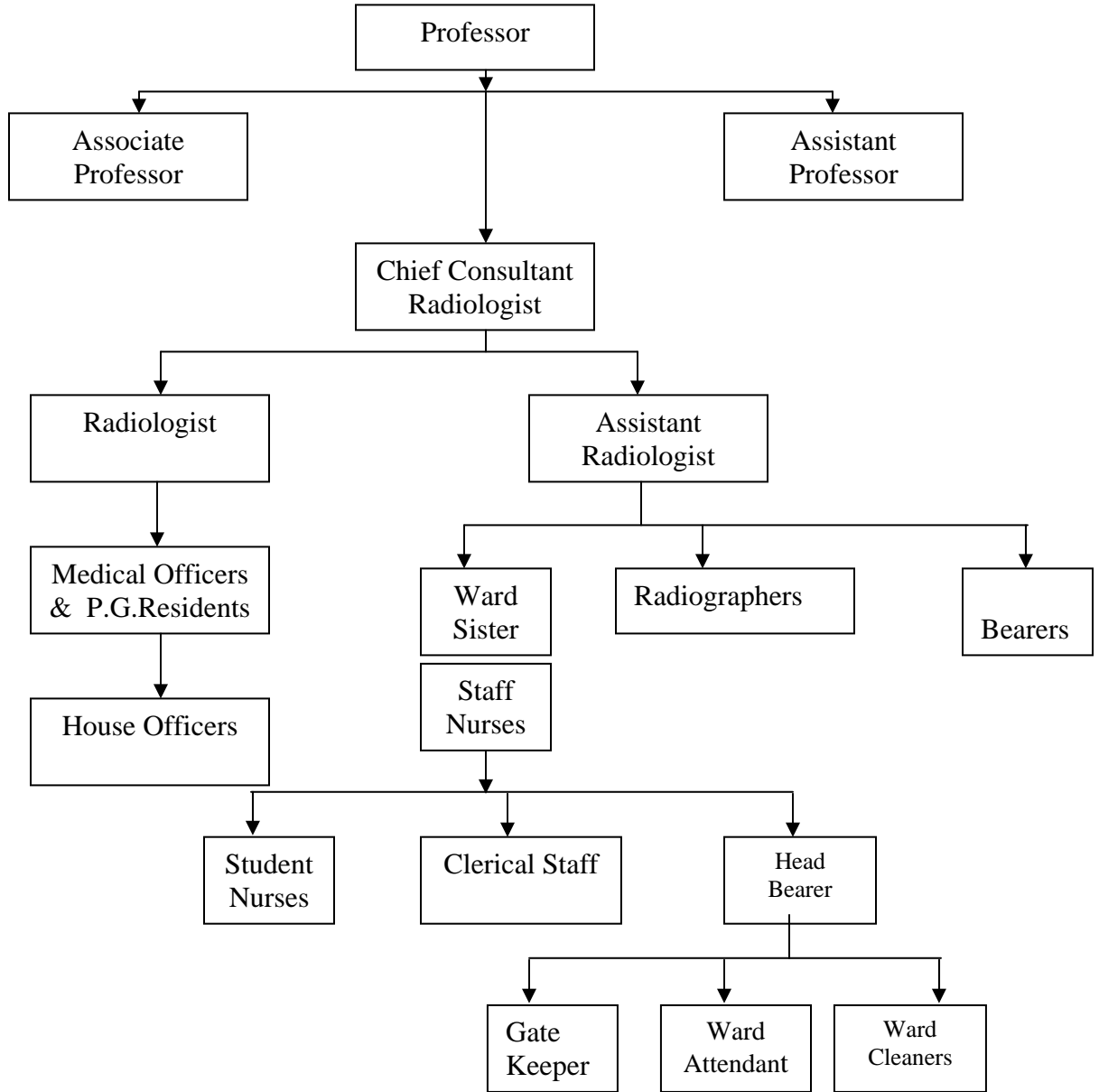
and Computerized Tomography Scanning. Magnetic Resonance Imaging is on its way to this department.

The building comprises of 14 rooms where different Radiological equipment is installed including Conference room and Library. The Department is also equipped with latest computers, Multimedia, Overhead Projector for Seminars, Lectures and Daily Class presentations.

The department reached from single x-ray room to present status of latest trends of Radiology by the untiring and valuable services and efforts of our worthy professors who headed this department. It is worth mentioning their names and tenure:-

		From	To
1.	Dr. Muhammad Alam	1947	1967
2.	Dr. Muhammad Ibrahim	1967	1970
3.	Prof. R.A. Mian	1970	1987
4.	Prof. M.A. Jawed Siddiqui	1988	1990
5.	Prof. M. Akram Cheema	1990	1993
6.	Prof. M.A. Jawed Siddiqui	1993	2003
7.	Prof. M. Nawaz Anjum	2003	2006
8.	Dr. Khawaja Khurshid Ahmad	2006	todate

Administrative setup:



Role and Responsibilities

i). Professor

He Coordinates the (1) Educational, (2) Clinical, (3) Administrative (4) Planning & Development, (5) Social Work, (6) Research and (7) Publication activities in the Department



& is responsible to maintain acceptable standards in each activity. He also arranges time to time internal & external audit & provides feed back to the concern staff members & perform counseling where required.

ii). Associate Professor

a) He Coordinates the (1) Educational, (2) Clinical, (3) Administrative (4) Planning & Development, (5) Social Work, (6) Research and (7) Publication activities in the Department, & is responsible to maintain acceptable standards in each activity. He also arranges time to time internal & external

audit & provides feed back to the concern staff members & perform counseling where required.

b) Director Post Graduate Education

(Assists the Professor in managing the affairs of the Department)

He is responsible for running all Post Graduate Educational courses, Seminars, Workshops, and Conferences on behalf of Department. He develops, runs & maintains record of different evaluations of PG candidates i.e. entry evaluations, internal evaluations & counseling & preparation for exit evaluations. He arranges rotations and postings of the residents. He also assists the Professor in managing different activities in the Department & acts as educationist, clinical specialist and resources person in his capacity.

iii). **Assist Professor**

Director undergraduate Education

(Assist the Professor in managing the affairs of the Department)

He is responsible for running education of MBBS students & house Surgeons. He is responsible for maintaining records of all educational activities and performance of individual student. He is responsible to arrange evaluation



and counseling of students with other teachers. He also coordinates different research projects related to the policy development and community surveys. He also assists the Professor in managing different activities in the

department and acts as educationist, clinical specialist and the resource person in his capacity.

iv). **Chief Consultant Radiologist**

Director Nursing and Paramedics Education
(Acts as Bridge between the Professor and Hospital Administration)



He is responsible for:

- Running courses for Nursing & Paramedical Staff & maintain necessary record.
- Arranging counseling of Nursing & Paramedical staff.
- He is responsible for all planning & development activities.

v). Director Data Control

He is responsible:

- To develop, modify, apply and, maintain record of data gathering performs regarding patient care in OPD/A & E and ward
- To present & discuss data of each teams A/B/C with relation to output, morbidity & mortality every fortnightly.



- To produce monthly report on output of the whole department.
- To produce yearly report.

vi) **Director Weekly Regular Seminars**

He is responsible:

- To conduct Radiology Seminar on every Thursday. (combined weekly meeting of Neurology, neurosurgery and Radiology departments)



vii). **Radiologist**

He is responsible:

- To keep everybody working in the department & provide their need even if he is not around.
- To issue all directions, notices etc. on the behalf of Professor/Medical Superintendent.



- To take all disciplinary activities.
- To perform verification of stock register every years.
- To perform verification of expense books of different items.
- To insure documentation on patient record, registers in OPD/A&E wards.

viii). Nursing Sisters

She is responsible:

- To guide & administer or Paramedical & Nursing staff.
- To maintain, clean & organized environment of ward.
- To maintain satisfactory standards of patients care.
- To arrange indent/expense of all stock/stores.
- To make & run duty rosters for paramedical & nursing staff.

ix). Duty Doctor / P.G. Resident Doctor

He is on duty for 24 hours. (8:00 AM to 8:00 AM) and is responsible to submit duty report.

- Total patients examined during his duty.
- Participate in morning teaching class
- Give time for investigation like USG, C.T. , Fluroscopy X-rays.
- List of Paramedical & Nurses absent from duty.
- Contact Sr. Doctors on call if need arises.

x) Head Bearer

a). Maintenance of Stock

- He is responsible for the stock maintenance and will check them on daily basis
- The registration fee will be deposited to the almoner office on daily basis
- Maintenance of clean Environment
- The head ward attendant will assign duties to the sweepers and ward attendants and will supervise the cleanliness of ward

b). Changing of bed Sheets

- Each patient will be provided with new bed sheet of examination coaches daily. If a bed sheet is soaked or become dirty it will be changed immediately
- He will send the dirty linen after recording their number to the laundry and will collect them on daily basis
- Cleanliness of wash rooms
- In indoor the washrooms will be cleaned every two hourly from 7am to 7 pm.
- From 7pm to 7 am it will be cleaned every 6 hourly

xi) Ward Attendant

He works under head bearer and his responsibilities are same as Head Bearer. He follows the instructions of Head bearer & sister Incharge.

xii). Cleaner

- He/she is responsible for round the clock cleanliness in all five work locations (Ward, OPD, A&E and Education center).
- 2. He/she cleans the Patients wash rooms every 02 hourly and the work location every 04 hourly.
- 3. He/she shifts the garbage on special trolley to the Hospital refusal tank.

xiii) Peon in Professor's Office

- i). He looks after the Professor's office and Education Center.
- ii). He controls the visitors and deals them accordingly.
- iii). He attends the telephone calls and messages in the absence of PA to the Professor.
- iv). He carries the letters of the Professor to different offices.

GENERAL DESCRIPTION

2.1 Overview

Department of Radiology was established in 1890.
Department of Radiology has the following resources:






1). Human Resources



- i). Teaching Faculty
- ii). Staff
 - a) Medical Staff
 - b) Nursing & Paramedical Staff
 - a. In door patients
 - b. Out door patients
 - c. Accident & Emergency
 - c). King Edward Medical University Staff

2). Learning Resources

- i). In door patients
- ii). Out door patients
- iii). Accident and Emergency
- iv) Nuclear Medicine
- v) Echocardiography
- vi) Paediatric Radiology

Teaching Faculty

Designation	Name, Tel, E-mail	Qualification	Photograph
ASSOCIATE PROFESSOR	Dr. Khawaja Khurshid Ahmed	(MBBS (Pb) DMRD (Pb)	
ASSISTANT PROFESSOR	DR. Mahjabeen Masood	MBBS, DMRD	
Chief Consultant Radiologist	Dr. Ghulam Muhammad	MBBS, DMRD	
APMO	Dr. Shamim Akhtar Khan	MBBS, DMRD	
Radiologist	Dr. Sarfraz Ahmad Tariq	MBBS, FCPS	

Radiologist	Dr. Asif Khan	MBBS, DMRD	
Radiologist	Dr. Farrukh Malhi	MBBS, DMRD	
Senior Registrar	Dr. Sadia Iftikhar	MBBS, FCPS	

MEDICAL STAFF

Dr. Afshan Qureshid	W.M.O.
Dr. Tahir Q.Khan	M.O
Dr. Mahjabeen Tariq	W.M.O
Dr. Muhammad Ali	M.O.
Dr. Iftikhar	M.O
Dr. Mujeeb ur Rehman	.M.O
Dr. Naveen Bogvi	W.M.O
Dr. Salma Awais	W.M.O
Dr. Mahr un nisa	W.M.O
Dr. Farida Ali	W.MO.

Group Photo of Medical Staff



Sitting
L – R

Dr. Shamim Akhtar Khan, Dr. Mahjabeen Masood , Dr. Kh. Khurshid Ahmed,
Dr. Ghulam Muhammad

Standing
L-R

Dr. Sarfaraz Ahmed Sahi, Dr. Farrukh Malhi , Dr. Sadia Iftikhar , Dr. Tahir Q.
Khan

Nursing & Paramedical Staff

S.No	Name	Designation
1	Shehnaz Saeed	Head Nurse
2	Azra Shehnaz	Charge Nurse
3	Saleema	Charge Nurse
4	Haji Jawed Islam	Radiographer
5	Khalid Lohdi	Radiographer
6	Munawar Hussain	Radiographer
7	Inayat Fazal	Radiographer
8	Saleem Ur Rehman	Radiographer
9	Jawed Iqbal	Radiographer
10	Shafique Ahmad	Radiographer
11	Abdul Samad	Radiographer
12	Nadeem Bhatti	Radiographer
13	Fayyaz Ahmad Bhatti	Radiographer
14	Khalid Chatta	Radiographer
15	Ilyas Shah	Radiographer
16	Anwar Waheed	Radiographer
17	Ayyaz Mehmood	Radiographer
18	Shaukat Ali	Dark Room Assistant
19	Ashraf Hussain	Junior Clerk
20	Mussarat Bashir	Charge Nurse
21	Mazhar Iqbal	Head Bearer
22	Muhammad Yousaf	Ward Attendant
23	Muhammad Maqsood	Ward Attendant
24	Muhammad Ishaq	Ward Attendant
25	Muhammad Sharif	Ward Attendant
26	Waseem Albert	Ward Cleaner
27	Tariq Masih	Ward Cleaner
28	Zahoor Masih	Ward Cleaner

Ultrasound Section



LEARNING RESOURCES AND SERVICES PROVIDED

Inpatients

Introduction

patients are referred to the Radiology Department for investigations through three work station

- i). Accident & Emergency
- ii). Out patients Department
- iii). Shifting from different indoor clinical wards / other hospitals.

Physical Capacity

A. Building

- a) Investigations Rooms
 - Flouroscopy room 1
 - Ultrasound room 1
 - Color Doppler 1
 - Conventional Radiography room 3
 - C.T. Scan Room 1
 - Computerized Radiography room 2

Total Rooms: 09 Rooms

- a). Professor's office
- b). Doctors Duty office.
- c). Assistant Professor office
- d) Radiologist office
- e). Sister Office
- f). Nursing Station.
- g). Library
- h). Conference Room
- i). Stores
- j). Male Wash Room
- k) Patients Toilet

^s

B. Furniture

- i. Patients Benches 05
- ii. Patient Chairs 25
- iii. Patients Wheel Chairs 02

Teaching Capacity

A. Indoor Department

Illuminators

Large one in the three sides of the conference room, one in each room of Professor, Associate, Assistant, Radiologist, Medical Officers

B. Nursing Station

- i. Emergency Trolley that contains the following:
 - Trolley with drawers
 - Torch
 - Laryngoscope
 - Emergency medicines & disposables
- ii. BP Apparatus and Stethoscope
- iii. Sucker machine
- iv. Oxygen cylinders with gauges

C. Ultrasound Room

Ultrasound Machine Siemens	01
Ultrasound Tosbi	01

D. Color Doppler Ultrasound Room



Color Doppler Machine Logic 5	01
Color Doppler Machine Logic 7	01

E. Computerized Tomography Scanning



Toshiba Machine C.T. Scanner(TSX 002A) 01





F. Computerized Radiography



CR System Fuji	01
CR System Agfa	01

G. Fluoroscopy Room



X-Ray Fluoroscopy Machine	01
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H. Conventional Radiography



X-Ray Machines 03

i. Conference Room



Multimedia Projector	One
Computer	One
Slide Projector	One
Over head Projector	One
Video Cassette player	One
Television receiver 24 inch	One
Projector Screen	One
Chairs (wooden)	Fifty
Stock Cupboard	One



j. Library

Chairs	Twenty
Wooden Book Almirah	Six
Large Wooden table	One

Functions:

Patients are referred by Consultants through either OPD, Accident & Emergency or from other wards / hospitals. Appointment for different investigations is given by the clerk of the concerned section after consultation with the duty doctor. The emergency cases are dealt with urgently and requested investigations is done on the same day.

Work Capacity

1. Ultrasound Examination	1500/ month approximate
2. Color Doppler USG	200/ month approximate
3. Fluoroscopic Examination	600/ month approximate
4. Conventional Radiography	2700/month approximate
5. C.T. Scans	1350 / month approximate

OUT PATIENT DEPARTMENT:

Introduction

OPD works six days a week from 8.00 am to 2.00 pm. Routine x-ray examination and USG examination is done of the patient referred from the OPD Department.

Physical Capacity

There are two x-ray machine installed in OPD X-Ray Department one in each room. One Ultrasound Machine installed in the OPD Ultrasound Room

Functions:

- i) Patient is received by the receptionist who received the fee for the prescribed investigation and sends the patient to USG or X-Ray room for relevant investigations.

- ii) Patient is x-rayed in the x-ray room and given half an hour time to collect x-ray films along with report.

- iii) Patient referred to ultrasound room is received by the charge nurse and ultrasound is done by duty doctor and report is issued their and then. If the consultant opinion is required then the patient is referred to indoor department for consultation.

LIBRARY



Different views of Radiology Department





EDUCATION AND TRAINING

For detail for courses refer to nursing and paramedical curriculum

Undergraduate Education

For MBBS Program refer to the curriculum of MBBS.

Postgraduate Qualification (DMRD)

Two year diploma programme.

Postgraduate Major Qualification (FCPS Radiology, M.D. Radiology)

For educational program refer to the curriculum

B.Sc. Imaging Technology

1. Case presentation by PGs	Daily
2. Joint clinico- radiological conference by Neurology, Neurosurgery and Radiology department in the Radiology Department.	Every Thursday

CONTINUOUS MEDICAL EDUCATION

Department of Radiology in collaboration with the Radiological Society of Pakistan is running monthly CME program on the last Sunday of every month

RESEARCH AND PUBLICATIONS
PUBLICATIONS OF THE FACULTY
DURING THE LAST THREE YEARS

1. Usefulness of CT Scan in Managing Blunt Renal Trauma
Annals of King Edward Medical University, July – Sept. 2006
2. Doppler Evaluation of solid Breast lesion, Is RI is Helpful ?
Annals of King Edward Medical University, April – June 2006.
3. Is it always DVT. Sonographic evaluation of unilateral leg swelling.
Annals of KEMC, July-September 2005.

**PROPOSED PROJECTS TO BE
CONDUCTED IN THE RADIOLOGY
DEPARTMENT**

1. C.T. in inflammatory gut pathologies.
2. Role of fat stranding in a CT abdomen- inflammatory lesion vs malignant lesion.
3. Liver Biopsy Vs Doppler ultrasound for Liver fibrosis in Hepatitis C patients .
4. Doppler in Hepatitis C proven patients.
5. Orbital sonography in patients with ocular trauma.
6. Conventional Myelography vs CT myelography – which is better .
7. Liver fibrosis – Ultrasound scoring system Vs Color Doppler, correlation with Liver Biopsy.
8. HRCT densitometry & characterization of lung nodules.
9. HRCT petrous bones in cases of unilateral ear discharge.
10. Characterization of thyroid nodule on Doppler ultrasound – correlation with nuclear scan.
11. Ultrasound eye in pediatric patients with unilateral visual loss .
12. Testicular Doppler for intratesticular solid masses.

13. HRCT Vs Contrast enhanced CT Chest in Characterizing Solitary lung nodules.

PROJECTS IN HAND BEING CONDUCTED IN THE DEPARTMENT OF RADIOLOGY

1. Frequency of Different Patterns on HRCT in interstitial lung diseases
2. Role of Ultrasonography, Mammography and Scintimammography in assessment of breast cancer, confirm by histopathology
3. Comparison of C.T. and Ultrasound Findings in Abdominal Tuberculosis
4. Comparison of TVS with Saline hystero-sonography in Diagnosis of Dysfunctional Uterine bleeding .
5. Comparison of Doppler Ultrasound with FNAC in Diagnosing thyroid nodule.
6. Radiological bone age estimation from long bones of lower limb.
7. Diagnosis of Renal stones CT Vs IVU.

Services for Earthquake Hit Area

On October 8, 2005, 8.50 PST, a magnitude occurred in Paksitan, Afghanishtan, and India. The earthquake epicenter was located 1000 kilometers north-northeast of Islamabad, along a fault associated with the Indian subcontinent moving northward at a rate 40 mm per year colliding with the Eursian continent.

The 2005 earthquake is arguably the most debiliatating natural disaster in Pakistan's history, Pakistan administered Kashmir known as Azad Jammu & Kashmir, and the Easten Districts of the North West Frontier Province bore the full force of the earthquake in terms of numbe rof lives lost, injuries sustained, and destruction of infrastrucre and economic assets.

According to Government of Pakistan figures, as of November 3, approximately 73,000 people had died and more than 70,000 had been severely injured or disabled. Over 2.8 million persons have been left without shelter and it is estimated that about 2.3 million person are without adequate food.

A nation united characterizes the strong civil society response throughout Pakistan and among expatriates living abroad. Doctors from Radiology department, also served the suffering people in three units, especially made for such patients in emergency department for couple of months.