

Educational Requirements, Development of Practice Standards, and Establishment of Iraqi Medical Physics Society



**Mustansiriya School, Constructed
between 1227 and 1234 A.D., Baghdad**



Modern Campus

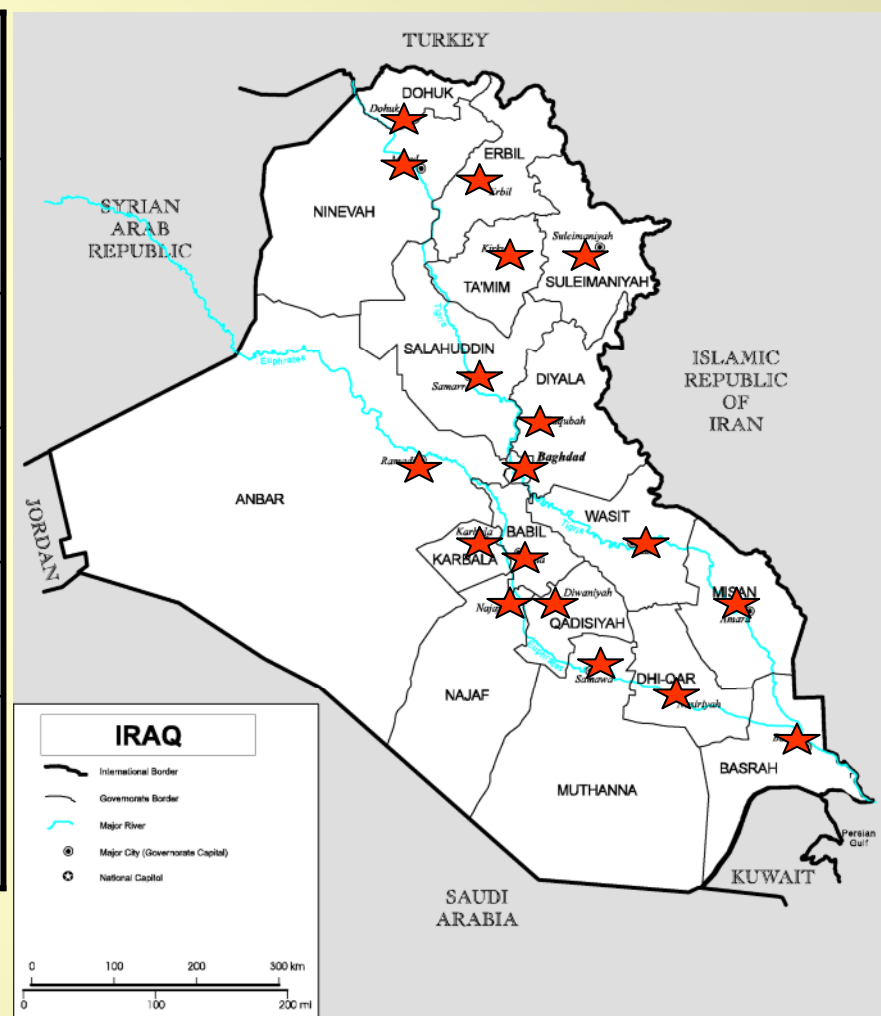
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Educational Requirements and Certification of Medical Physicists

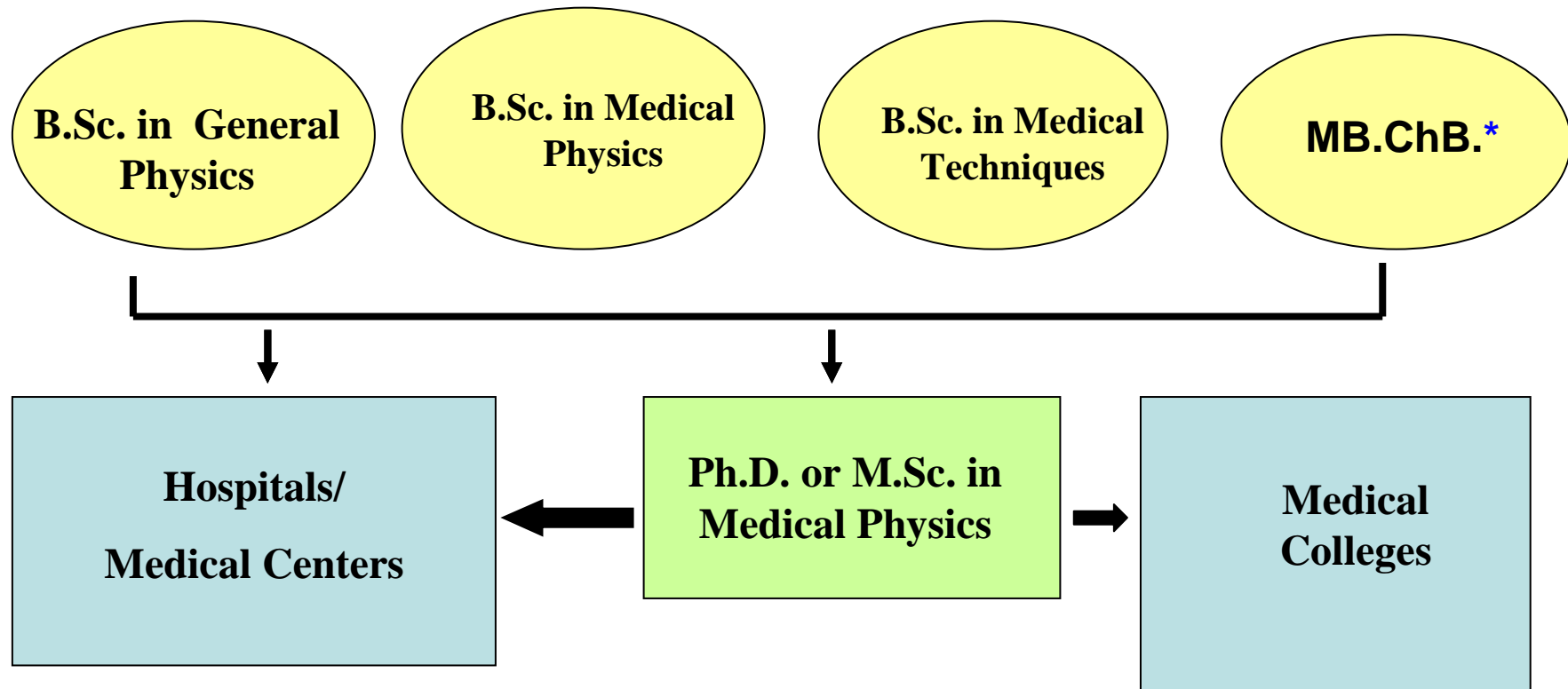
- ❑ Iraq has a wide range of medical physics professionals, working in the field of radiation medicine and medical research centers.**
- ❑ These groups are distributed over 18 Iraqi provinces in medical teaching institutions, hospitals, radiotherapy, diagnostic imaging, health physics, radiation protection and medical research centers.**

Distribution of Iraqi Medical Physicists (MPs) in Universities, Hospitals and Medical Centers

Universities/Hospitals/ Medical Centers	No. of MPs
13 Iraqi Universities/ Medical Colleges	23
Two Radiotherapy Hospitals: Baghdad & Mosul	25, 11 (respectively)
Rezgary Hospital/ Radiotherapy Unit/ Erbil	4
Sulaymaniya Radiotherapy Center	4
Basrah Children Hospital/ Pediatric Radiation Oncology Unit	6



Pathway of MP in Iraq



***Note: Some physicians are undertaking an M.Sc. Postgraduate course of study in medical physics**

Certification System

- B.Sc. in Medical Physics/ Four years study course/ Univ. of Baghdad/ College of Science (Established: 2002).**
 - M.Sc. & Ph.D. in Medical Physics/ Mustansiriya Medical College (Established: 1989). (On hold for the last four years).**
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- The M.Sc. degree requires a study course of two years, the first year includes theoretical lectures. While the second year represents the research part.**
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- The Ph.D. degree is three years study course. The first is for the theoretical part, followed by a comprehensive exam, and two years for the research work**

Certification System (cont'd.)

Curriculum and Units/ 1st year Ph.D. requirement

First Semester		Second Semester	
Subject	Units No.	Subject	Units No.
Physics of the body	3	Physics of diagnostic radiology	3
Radiation in Medicine	2	Physiological measurements	3
Physiology	2	Dosimetry and radiotherapy	2
Anatomy	1	Physics of nuclear medicine	2
Biochemistry	1	Radiation detection and protection	1
Computer	2	Physiology	2
Biostatics	1	Computers	2
Practical medical physics	1		

Certification System (cont'd.)

□ **DMRT: Higher diploma in radiotherapy**

➤ **Two years studying course, the first includes lectures in the basic sciences:**

- **Pathology (72 hrs/year)**
- **Radiation Physics (72 hrs/year)**
- **Radiobiology (48 hrs/year)**
- **Biostatistics (40 hrs/year)**

□ **The second year: clinical attachment/ out patients/ Radiation therapy techniques/ treating patients by radiotherapy, chemotherapy and follow up for the out patients**

□ **This diploma is awarded by the University of Baghdad/Surgery Dept.**

Note: Above is the certifications system in place for radiation oncologists. Medical physicists plan a similar approach once IMPS is fully established.

The Process of Establishing the IMPS

The first step toward establishing IMPS was started by communications between Dr. Muthana Al-Ghazi and an Iraqi medical physicist colleague who works and resides in Amman. This was through Dr. A. Niroomand-Rad. Thereafter, we developed a list of contact information which is sent to most of the Iraqi medical physicists in the 18 Iraqi provinces in order to be able to access them and obtain their thoughts and comments concerning the establishment of IMPS. About 70 MPs are now members of IMPS.

Iraqi Medical Physics Society Members Contact List

	Name/ E-mail	Degree	Subject	Year of graduation	From	Position	Working Location

The Process of Establishing the IMPS (cont'd.)

- ❑ The second step was writing the constitution of IMPS .**
- ❑ IMPS is a member of MEFOMP.**
- ❑ IMPS is looking forward to be a member of IBMP**

Aims of IMPS

- To promote scientific communication among all Iraqi medical physicists and affiliated professionals in the field of applications of physics/physical science in medicine.**
- To foster interdisciplinary collaboration among medical physicists and medical physics units in medical, scientific and educational institutions and research centers in Iraq. These include, but are not limited to, governmental institutions.**
- To organize activities which promote public awareness in the field of radiation hazards, radiation protection and assures safety of the public.**
- To encourage the exchange of knowledge and expertise among various related health disciplines through the holding of conferences, seminars, workshops and training courses.**
- To publish newsletters and literature that document the society's members activities.**

Aims of IMPS (cont'd.)

- ❑ To disseminate the society's views through the participation in scientific events. This may be conducted by other associations concerning the field of medical physics.**
- ❑ To act as a vehicle for Iraqi medical physicists by facilitating their participation in international conferences and workshops through the establishment of collaboration links with the other national and international societies.**
- ❑ To organize Iraqi medical physicists and related specialists in teams to mobilize all the available resources to develop national medical physics activities.**
- ❑ To be a member society in the Middle East Federation of Medical Physics (MEFOMP) and the International Organization of Medical Physics (IOMP).**

Acknowledgements

- Dr. Muthana Al-Ghazi, Radiation Oncology Dept/ Univ. of California/ Irvine for his continuous efforts in supporting the IMPS.**
- Dr. Raymond WU, ACMP/ for the opportunity to participate in this meeting.**
- Dr. Gerald Evans/ IMC-Baghdad/ Country Director for sponsoring my visit.**
- Dr. Tahseen Al-Rubaie/ IMC-Baghdad/ Radiation Oncology Training Program Manager for his cooperation and encouragement**