Thi-Qar college of Medicine

MISSION

The major fields of Thi-Qar college of medicine Mission are ***:***

(1) - In the field of education :
our mission is to educate and train qualified students with appropriate knowledge , skills ,and attitudes they will need to competent at a basic level and with an appropriate foundation for future career in any branch of medicine safely , effectively, and ethically through traditional educational system , prepared and ready for postgraduate medical education, and committed to life-long learning to meet the requirements of human rights , and Iraqi medical standards and encompasses aspects of global health .

(2)- In the field of research :
our mission is to contribute to the development of knowledge through medical researches attainment that keeps abreast of the evolutions and changes taking place nationally and globally .

(3) - In the field of health care :
our mission is to graduate efficient doctors to provide a high level of health care to the Iraqi community, the needs of the health care system and other aspects of social accountability, and capable of undertaking the role of doctors as defined by the health sector .

Intended Learning (Educational) Outcomes "ILOs"

The key domains of Thi-Qar College of Medicine (TCM) outcomes are:

1- Knowledge : What the doctor know and understand
2- Skills : What the doctor is able to do
3- Attitudes :What the doctor tend to do - opinions will be about the subject matter of the study
4- Educational professionalization- Things making the doctor works as a professional

1- Knowledge

1- Outcomes for Basic, Social and Clinical Sciences and Underlying Principles

The competent graduate recognizes, explains and manages health problems using the principles of current scientific *knowledge* and understanding that underpin medicine.

This could include:

- knowledge and understanding of the principles of evidence based medicine.
- Normal structure and function of the individual as an intact organism and of each of its major organ systems: Anatomy, physiology, biochemistry, genetics. Molecular, biochemical and cellular mechanisms that are important in maintaining homeostasis of the developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, and traumatic noxious effects on the body and mind.
- The life cycle: the different stages and how these affect normal structure and function e.g. the fetus; the neonate / infant; childhood; adolescence; adulthood; old age; death.
- Behavior and relationships between an individual and his/her: Family / partners. Immediate social groups. Society at large and the general population. Physical environment. Behavioral sciences, psychology and sociology: Knowledge and understanding of the following causes of disease: genetic, developmental, metabolic, toxic, microbiological, autoimmune, neoplastic, degenerative, traumatic, environmental, social, occupational.
- The causes of diseases and the ways in which these diseases affect the body (pathogenesis).
- The alteration in structure and function of the body and its major organ systems resulting from various diseases and conditions. Appropriate pathology and pathophysiology.
- Pharmacological principles of treatment using drugs: Pharmacokinetics and pharmacodynamics. Mechanisms of action / interaction. Side effects / adverse reactions.
- Principles of therapeutic measures in the management and symptomatic relief of diseases. Drugs, surgery, complementary therapies. Evidence base for use of therapeutic measures.
- Public health Knowledge and understanding of scientific reasoning in the practice of public health. Principles of healthcare planning, prioritization of service and communicable disease control. Knowledge of International Classification of Diseases and related health problems (ICD 10 - last version)
- Knowledge and understanding of Maternal &Child Health (MCH) & Primary Heath Care (PHC) programs : recognition of high risk pregnancies , vaccines & immunization campaigns , child care and periodic examination .School health program in general.
- Health economic: Knowledge and understanding of basic concepts including the cost of patient management and society and rationing.
- EpidemiologyKnowledge and understanding of principles of demography, biological variability and clinical trials.
- Education: Knowing about and applying basic theories of learning and teaching. Basic organization of medical teaching and training.

2- Outcomes for Patient Investigation

As with practical procedures there are different categories of patient investigation depending on whether or not we would expect a new graduate to be able *to undertake the task themselves or simply to know how the investigation is carried out and when it is appropriate to use it*. Competency in the general principles of patient investigation is essential.

This could include:

- General principles of patient investigation: Appropriate choice and use of investigation. Requesting/ordering of investigations according to local protocols / guidelines. Obtaining informed consent for investigations. Preparing patients for investigations practically and

with adequate information.

- Laboratory-based investigations: Demonstrable knowledge of the circumstances in which the commoner laboratory-based investigations are indicated and the procedures required to obtain the necessary material for investigation. Include: Biochemistry, Hematology Microbiology, Pathology ,Cytology, Genetics ,Immunology, Virology.
- Radiological investigations : Demonstrable knowledge of the range of radiological investigations available and their appropriate use in different circumstances. the radiological signs of emergency and common diseases , general principles of radiation hazards and radiation protection , how to order common radiological investigation .
- Clinical investigations: A number of system-specific investigations which the graduate should know about and may have observed, but would not routinely be expected to perform (c.f. Practical Procedures) .Exercise tolerance test, Pleural tap/biopsy, Upper and lower GI endoscopy, EEG, Lumbar puncture, Cystoscopy, Cervical smear, Colposcopy, Skin biopsy, Joint aspiration.

3- Outcomes for Patient Management

New medical graduates cannot be expected to have had *unsupervised experience* of all aspects of patient management as many are restricted by law, e.g. drug prescribing. However, it is reasonable to expect that they will have a demonstrable *knowledge* of the important aspects of management in the areas outlined below and that they will have had supervised involvement in such activities.

This could include:

- General principles of patient management: Use of patient-centered, holistic approach with careful consideration of all information available from history, physical examination and investigations and in full consultation with patient, relatives etc. Recognition of the importance of teamwork
- Drugs: Knowledge of prescribing, selecting method of delivery, calculating dosages, consideration of interactions and adverse effects.
- Surgery: Recognition of indications for intervention and the available surgical interventions. Appropriate use of informed consent and the understanding of principles of pre-, peri and post-operative care.
- Psychological:Recognition of interventions available and their use.
- Social : Consideration of patient's social circumstances, work, family etc, when determining treatment options. Available interventions ,The role of other organizations.
- Radiotherapy:Knowledge of options available and their appropriate use. Understanding the effect on the patient.
- Therapy services: Appropriate use. An understanding of what can be achieved and what is involved for patient and physiotherapist / occupational therapist / speech therapist etc.
- Nutrition: Understanding the role of nutrition as a major non-drug therapy in some medical conditions. Selecting appropriate method of ensuring adequate nutrition to meet individual patient's needs. Complementary therapy.
- Emergency medicine: Management of life threatening conditions whether due to trauma or disease e.g. acute MI, diabetic ketoacidosis, acute asthma, hemorrhage, anaphylaxis, etc. Demonstrating systematic approach with appreciation of local protocols/guidelines and working effectively as part of emergency care team.

- Acute care: Management of a variety of medical and surgical conditions that are not immediately life-threatening but which require early treatment, or management of more serious, life- threatening conditions in the period following emergency management e.g. uncomplicated cerebrovascular accident, exacerbation of chronic obstructive airways disease, etc.
- Chronic care: Consideration for: patient's age; nature of chronic disease; effect on patient e.g. loss of mobility, psychological impact . Appropriate use of drugs, appliances/aids, etc.
- Intensive care: The circumstances under which an individual patient might require intensive care. Recognition of interventions / monitoring capabilities offered by intensive care and the implications for patient and family including psychological.
- Palliative care: Recognition of what palliative care can offer, where it can be delivered and by whom. Knowledge of how to involve patient, family, friends as well as healthcare professionals and other relevant bodies.
- Pain control: Specific knowledge of pharmacological, physical and psychological interventions. Selecting the most appropriate method and knowledge of when to initiate pain relief.
- knowledge of simple basic principles of rehabilitation: Understanding of the integral role of rehabilitation in recovery especially after major illness, significant trauma or surgery e.g. myocardial infarction, spinal injury or transplantation. Appreciation of the need for a specific program of rehabilitation and the role of other healthcare professionals in providing this.
- knowledge of simple basic principles complementary therapies: Appreciation of what is available. Outline of what is involved in most commonly practiced therapies; how alternative and conventional therapies might be combined. Keeping an open mind and remaining impartial regarding the use of complementary therapies.
- Patient referral: Making appropriate referrals to the right professionals. Assessing at what stage of management referral may be indicated. Giving and receiving the appropriate information. Keeping the patient informed.
- Blood Transfusion Services: Nature and extent of service. How blood products are obtained through donors and by manufacture including issues of safety. Diversity of blood products available and how they are used in different circumstances. Making the most efficient and appropriate use of the Blood Transfusion Service in the care of patients.

4- Outcomes for Health Promotion and Disease Prevention

Every contact between a doctor and a patient can be seen as an opportunity for health promotion and disease prevention. It is therefore essential that the new graduate *knows in general* how to make the most of these opportunities through demonstrable knowledge of the principals involved both for individual patients and populations.

This could include:

- Recognition of the causes of disease and the threats to the health of individuals and populations at risk: Assessment of distribution of risk factors in the population.
- To be able to implement, where appropriate, risk reduction strategies for individual patients: Knowing how to change risk factors. The use of evidence-based medicine and effective interventions.
- Appreciate that health promotion and disease prevention depend on collaboration with

many other professionals and agencies. Identify who the other professionals and agencies are and what their role is. Consideration of; political, economic, behavioral and organizational barriers.

- Plan health promotion taking into account barriers to preventing disease and promoting health both in the individual and the population.
- Screening: Criteria for determining appropriate implementation of screening programs.

2- Skills :

1- Outcomes for Clinical Skills

The new medical graduate should be able to demonstrate competency in a range of clinical *skills* unsupervised and to a predetermined standard.

This could include:

- **Take a history from patients, relatives and others:** All age groups; local multicultural/multiethnic factors; a wide range of different contexts and a patient-centered, sensitive, structured and thorough approach with demonstration of principles of good communication.
- **Undertake physical examination of patients:** General and systems-based; appropriate for patient's age, gender and state of mental and physical health, in a thorough, sensitive and systematic manner.
- **Interpret results of history taking, physical examination and investigations to make differential diagnosis** : Recognition of abnormality and correct interpretation of common investigative tests.
- **Make a diagnosis:** Gathering and analysis of all available information. Recognition of important, life threatening conditions requiring immediate treatment.
- **Formulate a management plan:** Focus on patient's needs, priorities, involve patients and other members of the healthcare team and recognize own limitations.
- **Record findings:** Records concerning all relevant communications with patients / relatives and colleagues.

2- Outcomes for Practical Procedures

Mastery of appropriate practical procedures at the time of graduation is an essential part of the smooth transition from undergraduate to pre-registration house officer (PRHO). The following are suggested procedures that the new graduate should be able to *carry out unsupervised*.

This could include:

- Measuring and recording: radial pulse rate, blood pressure, body temperature, peak expiratory flow rate blood glucose using Reagent sticks with and without a glucometer, urinalysis using Multistix , fecal occult blood testing, pregnancy testing, perform and interpret a 12 lead ECG, manage an ECG monitor,general interpretation of an emergency and some common disease plane radiographs. Nutritional anthropometric measurements like : height , weight , waist circumference , hip circumference, and mid arm circumference using tap measures and subcutaneous tissue measurements
- Administering and doing: First Aid, basic resuscitation and basic life support for adults and children/infants, administration of oxygen therapy, venipuncture, take a blood culture. establish intravenous access and set up a giving set, male and female urinary catheterization, collection of MSU, arterial puncture, scrub up and gown for surgical and sterile procedures; skin suturing, wound care and basic wound dressing, make up drugs for parenteral administration, administration of intravenous, intramuscular and subcutaneous injections, dosage and administration of insulin and use / prescribing of sliding scales, use iv infusion and volumetric pumps, take nose, throat and skin swabs

3- Outcomes for Communication

Good communication underpins all aspects of the practice of medicine. All new graduates *must be able in general* to demonstrate effective communication *skills* in all areas and in all media e.g. orally, in writing, electronically, by telephone etc.

This could include:

- General principles of good communication: Being able to listen and use other appropriate communication techniques including an appreciation of non-verbal communication / body language (one's own and the interviewee's).Gathering and giving information with good record keeping and correspondence skills. Mediating, negotiating and dealing with complaints. Making oral presentations and writing reports / papers. Telephone usage
- Communicating with patients / relatives: Answering questions and giving explanations and/or instructions. Strategies for dealing with the "difficult" consultation including defusing aggression, breaking bad news and admitting lack of knowledge or mistakes. Making requests e.g. post-mortem, organ donation. Obtaining informed consent. Confidentiality.
- Communicating with colleagues: Transfer of information orally, in writing and electronically. The "art" of the good discharge summary and patient referrals.
- Communicating with Police: Proper procedure when such communication is necessary and how to relay appropriate information without breaking rules of confidentiality.
- Communicating with media and press: A clear understanding of who should give information to the media and press and what form it should take including the need to maintain confidentiality where individual patients are concerned.
- Communicating as a teacher: Recognizing the importance of sticking to what you know, knowing your own limitations and admitting when you don't know. Some basic teaching techniques e.g. demonstrating practical procedures, using various teaching aids, etc.
- Communicating as a patient advocate: How to recognize when this is appropriate and how it may be accomplished effectively.

4- Outcomes for Medical Informatics

Collecting, storing and using information has always been an integral part of the practice of medicine. It has, however, become more complex and technology-based thereby creating an increasing need for medical graduates to be competent in basic information handling *skills* ranging from simple record-keeping to accessing and using computer-based data. As well as having the technical skills to undertake such tasks it is important that graduates appreciate the role of informatics in the day-to-day care of patients and the advancement of medical science in general.

This could include:

- Keeping patient records: Maintaining high quality of recording (whether in writing or on computer); accuracy and data quality; legibility. Knowledge of: the different types of records and how records are stored and retrieved (manually and electronically); coding and classification; confidentiality – including legislation governing access to medical records

and data.

- Accessing data sources: Using library and other systems to access data and information from sources such as computerized databases and the Internet. How routinely collected health information is used in service planning and delivery of care. Using information in evidence-based practice. Identifying and using professional guidelines.
- IT Skills / Computing skills Use of E-mail, word-processing, databases, statistical packages, spreadsheets, Medline and on-line journals, etc.
- Personal record keeping for professional development: The role and use of log books and portfolios.

5- Outcomes for Decision Making Skills, and Clinical Reasoning and Judgment

Decision making, and clinical reasoning and judgment are activities in which medical undergraduates should be proficient. The new medical graduate must continue to display such *skills* with the additional burden of increasing responsibility for their decisions and actions. This is undoubtedly one of the most stressful aspects of the transition between undergraduate and PRHO and therefore the achievement of these outcomes to a high standard is essential.

This could include:

- Clinical reasoning: How to recognize and define the problem, analyze and interpret information and cope with limitations of information and personal limitations.
- Evidence-based medicine: How to seek the best available evidence and keep up to date. How to analyze and interpret evidence and work with guidelines and protocols. Recognizing the link between evidence-based medicine and audit and the reasons for variation in clinical practice.
- Critical thinking: The importance of adopting an inquisitive and questioning attitude and applying rational processes. Recognizing irrationality in oneself and others. The importance of own value judgments and those of patients.
- Research and scientific methodologies: Knowledge and appreciation of quantitative and qualitative methodology including the differences between them and their appropriate usage. Using research and scientific methodologies to interpret investigations.
- Statistical understanding and application. How to think and communicate quantitatively. Choosing and applying appropriate statistical tests with some understanding of the underlying principles and their strengths and weaknesses.
- Creativity / resourcefulness Creative use of techniques, technologies and methodologies. Demonstration of self-reliance, initiative and pragmatism. The importance of sometimes looking out with conventional boundaries.
- Coping with uncertainty and error in decision making. Appreciating that uncertainty exists and that sources of uncertainty might include: oneself the environment the patient limits of knowledge. How to use cognitive and intellectual strategies when dealing with uncertainty and the need to be adaptable to change. How to harness one's own emotional resilience and courage. The importance of making decisions in partnership with colleagues and patients. An outline of levels of responsibility in the healthcare system.
- Prioritizing: Knowledge and understanding of the factors influencing priorities. How to priorities one's own time as well as prioritizing the care of patients both of which include management of tasks, events, time and stress. How to use protocols to aid prioritization.

3-Attitudes

9- Outcomes for Attitudes, Ethical Understanding and Legal Responsibilities

The demonstration of appropriate attitudes by new medical graduates, as shown by their professional behavior, is a key area of concern for educators and employers alike and is obviously also of great importance to patients and the public in general. It is therefore important to have *attitudes* as an outcome for undergraduate medical education even if it is more difficult to define what we mean by this in comparison to some of the other outcomes. The legal responsibilities of even new graduates are numerous and relate to all aspects of practice. A firm grasp of ethical principles and their appropriate application must be gained before graduation.

This could include:

- Appropriate professional attitudes: Establishing trust between doctor and patient and respect for patients and colleagues. Adopting an empathic, holistic approach to patients and their problems. Valuing and preserving patient autonomy and involving patients in decisions affecting them. Respect for professional institutions and health service bodies.
- Basic ethical principles and standards: Knowledge and understanding of contemporary medical ethics and the main ethical principles of autonomy, beneficence, non- malfeasance and justice. The duties of a doctor. Practical application of theories e.g. consequentialism, deontology (duty) and double effect.The importance of confidentiality, truthfulness and integrity. Dealing effectively with complaints about own performance.
- Legal responsibilities: Particularly with respect to: Death, Drug prescribing, Physical and sexual abuse of children and adults .Reporting of adverse medical care / standards involving other practitioners. Codes of conduct. Human rights issues.
- Practice of medicine in a multicultural society: Knowledge of and respect for differing cultures, views, beliefs and practices relating to the human body and healthcare.
- Psychosocial issues: Those arising from patients and colleagues and relating to the multitude of differing characteristics making up the human personality.
- Economic issues: Knowledge and appreciation of financial constraints affecting the national health system and their impact on delivery of care.
- Contributing to the advancement of medicine: Progress in medical science and how it is achieved, particularly the potential for every doctor to contribute to such progress.
- The doctor's role in ethical regulated clinical trials

4- Educational Professionalization

1- Outcomes for The Role of the Doctor within the Health Service

This is a rapidly changing area of medical education and practice, which is subject to many external influences including political, legal and economic. However, there are a number of key outcomes applicable to the new graduate, awareness of which should provide a firm basis for dealing with future developments and changes within the health service.

This could include:

- Healthcare systems: An outline of the structure of the medical profession in Iraq, the professions allied to medicine roles and relationships of primary, secondary and tertiary care NHS organization the origin and history of medical practice systems that impact on

the NHS e.g. private medicine, EU, complementary therapies, etc.

- The clinical responsibilities and role of a doctor. The "Duties of a Doctor" as defined by the General Medical Council. Appreciation of the medical profession as a voice in society and an agent of change. The importance of valuing and participating in professional audit.
- The doctor as researcher: Appreciation of the value of medical research and how this is organized and funded in Iraq. Outlining the potential role of research in career progression and the opportunities for research even as an undergraduate.
- The doctor as mentor and teacher. The importance of reflecting on and analyzing own experience of mentors and teachers identifying the "positive" and the" negative" and how to use this in one's own practice as a teacher of others. The importance of adopting a culture of life-long learning and fostering this in the health service.
- The doctor as manager and team leader : Managing people and resources e.g. financial.
- The doctor as a member of a multi-professional team and the roles of other healthcare professionals: The opportunity to learn with and be taught by other healthcare professionals during undergraduate education with an understanding of the benefits to be gained by all concerned including patients. Working with other healthcare professionals in the context of patient care as an undergraduate in order to better develop team-working, leadership and facilitative skills.

2- Outcomes for Personal Development

Personal development within the context of undergraduate medical education is a complex issue. The underlying personality of the individual graduate and his/ her life experiences out with the university have a major influence on personal development, as do experiences relating specifically to their training. Personal development is, of course, an ongoing, life-long process but it is possible to identify a number of important outcomes for the undergraduate period.

This could include:

- Self-awareness: The ability to conduct oneself as a reflective and accountable practitioner including seeking out sources of informed criticism and valuing, reflecting and responding to them appropriately. Enquiring into own competence and evaluating own capabilities and personal effectiveness
- Self-learner: The ability to manage own learning as demonstrated by: searching out and selecting appropriate learning resources of all types , making use of all available technical aids ,employing appropriate and effective study skills, recognizing limitations of current personal understanding and capabilities and identifying areas needing refreshed or extended, setting realistic and appropriate personal learning goals selecting learning strategies that take account of personal learning preferences and that are likely to succeed, setting challenging personal learning goals as a basis for personal growth
- Self-care: Recognition of the pressures of a demanding professional life on health, well-being and relationships with others and the need to maintain a balance between personal, professional and social goals and activities. Evidence of attention to lifestyle, diet, exercise and relaxation. Making use of available help and advice in stressful circumstances. Recognition of the hazards of self-medication or substance abuse in dealing with stress.
- Career choice : Identify short and long-term career and personal plans and aspirations and work towards these by establishing realistic development plans involving relevant activities. Participate fully in the life of the professional community and make use of

professional and other networks of all types.

- Motivation: Recognizing key personal motivating factors and their importance in sustaining a high level of motivation.
- Commitment: Demonstrating dedication to one's chosen career pathway through adherence to the codes of conduct and behavior expected of undergraduate medical students and doctors and an acceptance of any limitations that might be associated with them.

FEEDBACK
FORM

As well as reading through this document when you first receive it, we hope that you refer back to it and use it over the next year.
We would welcome your comments and suggestions regarding the content of the document at any time during this period.
You can either write your comments in the space below, and send it to the e-mail reply facility on the Thiqar medical college web site
or send an e-mail message to Ass. proof. Dr Riyadh del J. abdulazeez (riyadhmasar@gmail.com) You may remain anonymous if you wish but it would be helpful to have some basic information regarding your geographical location, your specialty and grade of post.
Thank you.

Your name_____

Where do you work?_____

What is your specialty?_____

What post do you hold?_____

COMMENTS