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Al-Kindy medicine colloge

First Stage

2011 - 2012

Foundation of Medicine

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First Stage
Foundation of Medicine
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Lec 1 - Medical Faculty: Aims, Objectives & Activities – History of Medicine

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CR.P & D. المرحلة الاولى د. وجدان اكرم

Medical Faculty: Aims, objectives and activities

كلية - هيئة

medical school or **faculty of medicine** is a tertiary educational institution—or part of such an institution—that teaches medicine. **Tertiary education**, also referred to as **third stage, third level,** and **post-secondary education**, is the educational level following the completion of a school providing a secondary education,

مؤسسة - تأسيس

بعد

إنجاز - إكمال

In addition to a medical degree program, some medical schools offer programs leading to a Master's Degree, Doctor of Philosophy (PhD), or other post-secondary education. Medical schools can also employ medical researchers and operate hospitals. Medical schools teach subjects such as human anatomy, biochemistry, immunology, neurology, genetics, and pathology.

يعرض

يُوظف

الباحثين

علم الأمراض

علم الوراثة

علم الأعصاب

علم المناعة

إجمالاً - بالمجمل

يمنح - يعطي

شهادة طبية جامعية

قانوناً

Although medical schools confer upon graduates a medical degree (MBBS, MBChB, a doctor typically may not legally practice medicine until licensed by the local government authority. Licensing may also require passing a test, undergoing a criminal background check, checking references, and paying a fee.

يُرخص به - مُرخص

مراجع

رسم - اجر

هيئة - سلطة

خطير - جسام

خلقية

امتحان - فحص

Bachelor The Bachelor of Medicine and Bachelor of Surgery degrees (MB BS or MB ChB, and several variants) are equivalent to the North American MD degree.

جراحة

اختلافات - تنوعات

معادل

The faculty offers a Bachelor degree in Medicine and Surgery. It includes the following academic and clinical departments:

نظري

سريري

اقسام

1. Anatomy
2. Physiology علم الوظائف
3. Medical Biochemistry
4. Histology علم الانسجة
5. Pathology علم الامراض
6. Pharmacology علم الادوية - الدوائيات
7. Microbiology علم الاحياء المجهرية
8. Medical Parasitology علم الطفيليات
9. Ear, Nose and Throat
10. Ophthalmology طب العيون
11. Forensic Medicine and Toxicology علم السموم
12. Community Medicine طب مجتمع
13. Obstetrics and Gynecology علم امراض النساء و اضطرابات البدنية
14. Paediatrics (inc. clinical genetics)
15. Surgery

طب شرعي

علم التوليد

المرحلة: الاولى
المادة: اساسيات الطب
التاريخ: ٣/١٢/٢٠١١
المحور: ١٥٠

16. Anaesthesiology (inc. Critical medicine and intensive care)
17. Internal Medicine
18. Dermatology and Venerology
19. (Clinical pathology)
20. Radio diagnosis, radiotherapy and physical medicine

The duration of study is six years followed by a year of training (internship) in a hospital under the supervision of faculty staff members.

Postgraduate Studies: **Postgraduate.doc**

Diplomas:

The faculty offers diplomas in the specializations of some of its departments.

Master degrees

The faculty offers Master degrees in the specializations of its departments, in addition to the following:

1. Haematology
2. Clinical and Chemical Pathology
3. Emergency Medicine
4. Critical Medicine
5. Speech Therapy
6. Clinical Immunology
7. Clinical Genetics
8. Audiology
9. General Practice

Applicants for a Master degree must:

- hold a Bachelor degree with an average grade "Good"
- be full time students for at least one academic year.
- pass exams on required courses
- submit a written thesis within at least two years of registration.

The faculty of medicine- as every other faculty in the university- runs a dual deanship structure, allowing for an academic dean to handle issues regarding the academic structure (curriculum, medical staff, hospital liaisons), and a *University medium* dean to handle issues of clinical and social ethics, student and staff welfare, among others.

The faculty's programme is focused on the students' interaction with its medium on each different semester.

The objective is to allow a theoretical learning based on 'magisterial' lessons that can thereon be followed up by more intimate tutoring by doctors, residents and interns, as well as a practice, which can be at the laboratory, at the amphitheatre or at the hospital.

In Egypt,:

medical school is a faculty of a university. Admission depends on the score of the applicant in his last year of Secondary School (baccalaureat)(الثانوية العامة). However, the minimum threshold for applicants with such international degrees tends to be very inflated as there's a very strict quota on non-baccalaureat students and there are no specific entrance examinations. Medical education lasts for 6 years, at the end of which, there is an additional 12 months dedicated to full-time training as a house officer at one of the University or Government Teaching hospitals. The first 3 years of medical school cover the basic medical sciences, while the last 3 years are focused on clinical sciences. After graduation, medical students are conferred the degree of Bachelor of Medicine and Surgery MBBCh (بكالريوس الطب و الجراحة). Medical licensure as a General Practitioner (GP) is obtained after completion of the year of full time training and registering with both the Ministry of Health & Population (MOHP) and the Egyptian Medical Syndicate (نقابة الأطباء). Examples of medical schools in Egypt are: Mansoura university school of medicine and Cairo university school of medicine.A person accepted into a medical school and enrolled in an educational program in medicine, with the goal of becoming a medical doctor, is referred to as a *medical student* or *student doctor*. Medical students are generally considered to be at the earliest stage of the medical career pathway. In some locations they are required to be registered with a government body.

In Iraq :

The **College of Medicine University of Baghdad**, formerly known as the *Iraqi Royal Medical College*, was established in 1927. The first Dean and its founder was Sir Henry Sinderson (Pasha), a British physician who was the physician of the Iraqi Royal Family.

The **College** was established near by a hospital (al Majeedi Hospital) near to Tigris river. It was one of the first medical schools in the Middle East Mosul Medical College of University of Mosul is proud to be the second oldest medical college in Iraq.

Medical education lasts for 6 years, at the end of which, there is an additional 24 months dedicated to full-time training as a house officer at one of the Teaching hospitals. The first 3 years of medical school cover the basic medical sciences, while the last 3 years are focused on clinical sciences

History of medicine

د.وجدان اكرم

What is medicine

medicine is the science that is dealing with the maintenance of health, prevention and cure of diseases *"History (medicine)". It is not to be confused with Medical history.*

All human societies have medical beliefs that provide explanations for birth, death, and disease. Throughout history, illness has been attributed to witchcraft, demons, adverse astral influence, or the will of the gods.

These ideas still retain some power, with faith healing and shrines still used in some places, although the rise of scientific medicine over the past millennium has altered or replaced mysticism in most cases.

8000 BC: Prehistoric medicine:

For thousands of years humans have become ill and for the same amount of time people have tried to cure them. Our ideas about medicines in prehistoric times come from archaeologists who have excavated and explored ancient sites. Their findings reveal a very different world to the one we experience today

Links to the spirit world

Cave paintings and symbolic artifacts found by archaeologists suggest the earliest humans believe in spirits and supernatural forces. Animals, the stars, the land in which they lived and dead ancestors all inhabited a spirit world that was connected to their everyday life.

Special individuals, like Shamen, were thought to be able to contact the spirit world and seek their guidance when they entered mysterious trances. These men and women would call upon the spirits to bring good hunting or heal the sick and were possibly the first doctors.

One form of primitive surgery seems quite shocking. Ancient

المرحلة : الاولى
المادة : اساسيات الطب
التاريخ : ٢٠١١/١٢/٣
المحاضر : ٢٥٠

skulls have been found with a hole bored into them. This operation, called **trepanning**, but it may have been to allow the evil spirits to leave a sick person. .

Western medicine is based on scientific observation and experimentation. We no longer live in the mystical spirit world of the ancients but that does not mean that beliefs no longer play a part in healing.

Many people still visit faith healers or follow alternative therapies that claim to tap into invisible forces of nature. Indeed, Shamen still play an important part in certain Native American and African cultures.

2000 BC: Egyptian medicines

The ancient Egyptians built pyramids to bury their Pharaohs and worshipped gods who ruled every aspect of their lives. The goddess Sekhmet was believed to cause or cure diseases and priests played a large part in Egyptian medicine.

Health and the gods

Religious beliefs dominated the ancient Egyptians' view of healing. Doctors were often priests who were able to communicate with the gods responsible for the health of different parts of the body. Illness was due to the presence of evil spirits or poisons and removing these from the body with prayers to the gods would cure the disease. Medicines were used to help relieve pain but were not thought to play any other role in the healing process.

Egyptologists have found documents, written on a type of paper called papyrus, that describe medical techniques similar to those used today. The Egyptians used compression on a wound to stop bleeding and had specialists in obstetrics and gynecology who were the forerunners of modern midwives

Babylonia - Medicine

The oldest Babylonian texts on medicine date back to the Old Babylonian period in the first half of the 2nd millennium BC. The most extensive

Babylonian medical text, however, is the *Diagnostic Handbook*

Along with contemporary ancient Egyptian medicine, the Babylonians introduced the concepts of diagnosis, prognosis, physical examination, and medical prescriptions. In addition, the *Diagnostic Handbook* introduced the methods of therapy and etiology and the use of empiricism, logic and rationality in diagnosis, prognosis and therapy.

450 BC: Greeks and Romans

Hippocrates :Possibly the most famous name in medicine belongs to the Greek philosopher. He is seen as the father of modern medicine and gives his name to the **Hippocratic oath** that doctors take.

Hippocrates went against this conventional thinking and looked on the body as having a balance between four **humors**: blood, phlegm, black bile, and yellow bile. If a person was ill, it meant that there was an imbalance in their humors and so they would take a treatment to return the balance back to normal.

Four humors

Roll over each humor to find out what it represented.

Blood :

Blood gave a person a lively personality and lots of energy. They would enjoy life and the arts.

Phlegm:

Phlegm made a person feel lethargic or have a dull personality.

Black bile:

Black bile caused depression and sadness.

Yellow bile :

Yellow bile influenced a person's temperament. It caused anger and a fiery temper.

Hippocrates and his followers were first to describe many diseases and medical conditions. He is given credit for the first description of clubbing of the fingers, an important diagnostic sign in chronic suppurative lung disease, lung cancer and cyanotic heart disease. For this reason, clubbed fingers are sometimes referred to as "Hippocratic fingers"

Galen : was a Greek physician who emigrated to Rome and

became the principal doctor for many of the professional gladiators. At that time, it was illegal to dissect human bodies and so he dissected animals to find out how their bodies worked. This knowledge helped Roman doctors to improve their techniques in surgery. They developed new instruments and much of their knowledge was gained treating casualties

Hygiene: The Romans realized that there was a link between dirt and disease. To improve public health, they built aqueducts to supply clean drinking water and sewers to remove wastes safely. Improved personal hygiene helped to reduce disease . The fall of the Roman Empire meant that many of their public hygiene practices were soon lost.

God and medicine:
Medicine in the middle ages was dominated by religion. Sickness was believed to be a punishment from God for sins committed and the only way to cure someone was to pray for their forgiveness.

Surgery: Perhaps the most famous wound of all was the arrow in the eye. Surgery was a crude practice during the middle ages but operations such as amputations, setting broken bones, replacing dislocations and binding wounds were relatively common. Opium was sometimes used as an **anesthetics** while wounds were cleaned with wine to try and prevent infections.

Plague
The biggest challenge to medieval medicine came in the form of the Black death, or Bubonic Plague. In 1347, an outbreak of bubonic plague broke out in Istanbul .Traders soon carried the disease throughout Europe and records show that in some areas it killed up to 90% of the population. That is the equivalent of 49 million people in the UK today.

700 - 1500 AD: Arabic medicines
For many centuries after the fall of the Roman Empire, the Arabic world was the centre of scientific and medical knowledge. Texts from Greece and Rome were translated into

Arabic and studied by Islamic scholars. They developed and refined Hippocrate's theories and Islamic physicians began to use the regulation of diet, exercise and the prescription of medicinal herbs in the treatment of their patients. Arabic **pharmacists** became skilled in the formulation of medicines from plants and minerals.
Even though they did not know about microbes, they used alcohol to clean wounds which healed better and did not become infected.

Middle Ages

Islamic Middle Ages:

The Islamic civilization rose to primacy in medical science as Muslim physicians contributed significantly to the field of medicine, including anatomy, ophthalmology, pharmacology, pharmacy, physiology, surgery, and the pharmaceutical sciences.

One of the most important medical books of its time was written by the physician Ali al-Husayn **Abd Allah Ibn Sina**. His massive manuscript, called the *Laws of Medicine*, was completed around 1030 and translated into Latin in the 12th Century.

This encyclopedia of medicine contained five books detailing the formulation of medicines, diagnosis of disorders, general medicine and detailed therapies. It continued to be a great influence in the development of medicine in medieval Europe for hundreds of years.

Muhammad ibn Zakariya al-Razi became the first physician to systematically use alcohol in his practice as a physician.

The "*Kitab fi al-jadari wa-al-hasbah*" by Muhammad ibn Zakariya al-Razi, with its introduction on measles and smallpox was also very influential in Europe.

Al-Kindi he demonstrated the application of mathematics to medicine, particularly in the field of pharmacology.

Abu al-Qasim ,regarded as the father of modern surgery,wrote the *Kitab al-Tasrif* (1000), a 30-volume medical encyclopedia which was taught at Muslim and European medical schools until the 17th century.

دوران إكليلي

الدوران الرئوي

In 1242, **Ibn al-Nafis** was the first to describe pulmonary circulation and coronary circulation, which form the basis of the circulatory system, for which he is considered the father of the theory of circulation.

Lec 2 – Evolution of Medicine

Lec. 2 Evolution of medicine : د.وجدان

1400 - 1700: The Renaissance

The Renaissance was a period in European history during which there was a revival in the ideas of ancient Rome and Greece. Culture, art, science and medicine were studied by aristocrats and scholars who prized themselves on their education. Ideas flourished and the newly invented printing press allowed books to be produced quickly.

Andreas Vesalius and Leonardo Da Vinci dissected human bodies and made the first anatomical drawings. These helped in understanding the organs and systems of the human body.

Circulation : a major breakthrough

In 1628, **William Harvey** published his new theory that the heart acts as a muscular pump which circulates blood around the body in the blood vessels. Discoveries during the Renaissance laid the foundations for a change in thinking leading to the view that the body is made up of specialized systems that work together; the basis of medical knowledge that we still see today..

1700 - 1900: 18th and 19th centuries

The industrial revolution of the 18th and 19th century massive change in the way people lived and how this affected their health. People moved from small villages and an agricultural lifestyle to live in towns and cities that sprang up around the new factories, where they could work. People lived in dirty, overcrowded conditions with poor sanitation and dirty drinking water. Many died from diseases such as cholera, tuberculosis, measles and pneumonia – infections that could spread quickly and easily in these conditions.

Medicine was revolutionized in the 19th century and beyond by advances in chemistry and laboratory techniques and equipment, old ideas of infectious disease epidemiology were replaced with bacteriology and virology.

Bacteria and microorganisms were first observed with a microscope by Antonie van Leeuwenhoek in 1676, initiating the scientific field microbiology.

Two of the big medical advances of this time were: * vaccinations * X-rays

A microscopic revolution

A Dutch clockmaker, Anton Van Leeuwenhoek, made one of the earliest microscopes to use a glass lens. The detail the revolutionary microscopes could see allowed the English scientist Robert Hooke to observe cells for the first time. In 1661 the Italian scientist Marcello Malpighi identified capillaries which finally showed the link between arteries and veins and proving **Harvey's** theory for the circulation of blood.

Medicine comes of age

Medicine also made great advances during this time. **Edward Jenner** pioneered the earliest vaccinations and discoveries by **Louis Pasteur** and **Robert Koch** led to the understanding that infections were caused by certain bacteria or germs. Koch was also famous for the discovery of the tubercle bacillus (1882) and the cholera bacillus (1883).
From the 1840's onwards, the discovery of the anesthetics ether, chloroform and cocaine allowed surgeons to take more time and care over operations. Modern anesthetics mean that operations lasting several hours are now common place.

1895: X-rays – the start of medical imaging

X-rays were discovered in 1895 by the German Physicist Wilhelm Roentgen. He was studying cathode rays produced by a recently-invented piece of equipment called a Crooke's tube when he noticed that a fluorescent screen across the room started to glow.

Modern scanners

A modern development of the X-ray is found in CT scanners. Computerized tomography (or CT) scanners use several beams of X-rays simultaneously from different angles.

1900 - 2000: 20th centuries

New medicines, improved air quality and better public hygiene has contributed to this 64% increase in the life-expectancy. The twentieth century has seen some major advances in healthcare. These have included the development of:

* **penicillin:** the discovery and development of **antibiotics** by **Fleming**, **Florey** and **Chain.**
* **insulin:** Banting and Best's work to show that insulin can be used to treat diabetes.

other medicines: pharmaceutical laboratories around the world are constantly producing new treatments for diseases.
DNA: the human genome project is unlocking the secrets held within our DNA. It will lead to a much better understanding of the genetic basis for many diseases and may enable the development of new cures in the **21st Century**.

1922: Insulin

In 1922, the Canadian physiologists Fred Banting and Charles Best announced to the world that they had discovered Insulin and successfully used it to treat diabetes in a human patient. Until then, diabetics would struggle to grow and there was no successful treatment. They would become walking skeletons and die prematurely due to severe weight loss.

2000 and beyond: 21st century medicine

It is impossible to say how medicine will develop over the next hundred years but undoubtedly our knowledge of genetics will be of great importance.

Genetics and medicine

The risk of developing many disorders, such as Alzheimer's, diabetes and heart disease, may well be influenced by our genetic make-up. Greater understanding of the human genome will direct the development of medicines to help treat and prevent diseases over the next hundred years. Advances in genetics will allow treatments to target the genes or specific proteins that cause disease. Gene therapies are being developed that aim to replace faulty genes and so reverse the effects of inherited disorders such as cystic fibrosis.

New challenges

It is impossible to prevent all diseases. Bacteria are evolving resistance to antibiotics and viruses mutate to cause new infections such as the outbreak of Severe Acute Respiratory Syndrome (SARS). As life expectancy rises, fresh challenges will emerge in the treatment of the elderly. One issue that medicine alone cannot tackle is to raise the living conditions of people throughout the world so that they do not suffer from diseases of poverty. As always, modern medicine will continue to face fresh challenges and find new solution for the 21st Century.

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University of Baghdad

Al - Kindey college of medicine

First stage

Medicine bases

2011 - 2012

Lec 3 – The Concepts of Health & Medicine

The Concepts of Health and Disease

Introduction:

- **Health** is defined as: " Complete physical, mental and social wellbeing and not merely the absence of disease or infirmity- WHO (Word health organization) 1948
  Then add spiritual, and in recent years the statement is amplified to include the ability to lead a socially and economical productive life
- **Disease (The converse of Health)** refers to any change from a normal state of health or an abnormal state in which part or all of the body is not properly adjusted or is not capable of carrying on its normal functions.
  - Literary, "DIS-EASE", is the opposite of ease, when something wrong in the body function, or any deviation from normal.
  - Disease: A cluster of signs, symptoms and laboratory findings linked by a common patho-physiologic sequence.
  - Illness: The subjective state of the individual who feels aware of not well being (The ill individual may or may not be suffering from disease).
  - Sickness: the social role assumed by an individual suffering from an illness.
- Neither health nor disease is static or stationary. A battle to maintain a positive balance against biologic, physical, mental, and social forces tending to disturb health equilibrium

Causes of Disease:

1) **Infectious disease** – caused by disease producing microorganisms.
2) **Nutritional deficiency disease** – caused by the lack of a particular, necessary nutrient
3) **Congenital disease** – is present at birth and is the result of some condition that occurred in utero (maternal infection, use of drugs or alcohol, etc.)
4) **Inherited disease (Genetic Diseases):** are passed to the child via the parent's reproductive cells.
5) **Metabolic diseases:** result from abnormalities in the biochemistry of body function. Many are congenital or inherited disorders.
6) **Degenerative diseases:** this occurs when there is a wearing down of part of the body leading to loss of function. This may be due to aging, excessive caloric intake, radiation, errors in gene function, etc.
7) **Neoplastic Diseases:** These are tumors which are new growth of cells or tissues. Tumors may benign or malignant.
8) **Immunologic Diseases:** This occurs when some of our immunologic defenses attack our own bodies. Are also called autoimmune diseases.
9) **Iatrogenic disease:** are caused by health care personnel during the delivery of health care
   - Could be due to use of contaminated equipment
   - Could be caused by the administration of drugs
10) **Psychogenic Diseases** – are caused, at least in part, by emotional factors
11) **Idiopathic diseases:** Diseases that have an undetermined cause.

What are the signals of disease?

1) **Symptoms** : such as pain, nausea, or malaise
2) **Signs** : changes that can be observed and measured such as fever, swelling, or a rash.
3) **Syndrome** : a group of symptoms and signs that always accompany a particular disease

What are the stages of disease?

1) **Period of incubation**: the time between acquiring the infection and the appearance of the first signs or symptoms. This may be a constant or a variable time depending upon the disease.
2) **Prodromal period**: when the first signs and symptoms appear.
3) **Period of illness**: when the disease is most acute and the overt signs and symptoms of the disease occur.
4) **Period of decline (recovery)**: this is where the signs and symptoms subside.
   - ► If the decline occurs quickly, it is said to occur by crisis.
   - ► If the decline occurs over a longer period of time, it is said to occur by lysis.
5) **Period of convalescence**:- this is where the person regains strength and the body returns to its pre-diseased state.

Consequences or effects of a disease

1) **Impairment**: Functional loss in a part of the body.
2) **Disability**: Functional loss plus psychological upset.
3) **Handicap (Dependence)**: Impairment of the social role played.

Epidemiology: Has been defined as:

the study of the distribution and determinant of disease or health related status or events in specified population, and the application of this study to control of health problems

* It is basically the study of health and disease in population and how we can improve the health and prevent the disease at community level.

Lec 4 - Health Care Systems

Health care systems

A health care system is the organization of people, institutions, and resources to deliver health care services to meet the health needs of target populations.

Demographics of health

socioeconomic status, gender and age are important variables in health and obtaining health care.

- **Socioeconomic status :**
  A construct determined primarily by occupation, education, and income correlates directly with health status. People in lower socioeconomic group typically have proper mental and physical health and decreased life expectancies than those in higher socioeconomic groups. Ethnic groups like African, American or Latino are at higher risk than white population for several medical conditions and for dying young, in addition that the poor face in obtaining health care, poorer diet and habits such as smoking and alcohol abuse, are seen more commonly in low socioeconomic groups and contribute to increased risk for physical and emotional illness.
- **Gender and health :**
  The sex difference in life expectancy starts early: males are more likely than females to die in the first 5 years of life and in young and in middle adulthood.
- **Age and health :**
  Children are more likely than young and middle-aged adults to require medical treatment. However, of all age groups, the elderly are at higher risk for physical and mental illness.

A health care system

There is a wide variety of health care systems around the word, with as many histories and organizational structures as there are nations. In some countries, health care system planning is distributed among market participants. In others, there is a concerted effort among governments, trade unions, charities, religious, or other co-ordinated bodies to deliver planned health care services targeted to the populations they serve, However, health care planning has been described as often rather than revolutionary.

- **Health care system** is an arrangement in which health care is delivered. There are many variations of health care systems around the world, e.g. the United States is one of industrialized countries that does not have publically mandated and funded health care insurance coverage for all citizens. The elderly, the chronically disabled, the indigent have government funded health care insurance. Other Americans, however, must either obtain health insurance through their employers or pay out-of-pocket for their health care.

Goals

The goals for health care system, according to the World Health Organization, are good health, responsiveness to the expectations of the population, and fair financial contribution, progress towards them depends on how systems carry out four vital functions: provision of health care services, resource generation, financing, and stewardship. Other dimensions for the evaluation of health care systems include

quality, efficiency, acceptability, and equity. They have also been described in the United States as **"the five Cs"**: Cost, Coverage, Consistency, Complexity, and Chronic Illness. Also, continuity of health care is a major goal.

Providers

Health care providers are institutions or individuals providing health care services.

Financing

There are generally five primary methods of funding health care systems :

1) direct or out-of-pocket payments
2) general taxation.
3) social health insurance.
4) voluntary or private health insurance, and
5) donations or community health insurance.

Health care has the following characteristics :

1) The provision of critical health care treatment is often regarded as a basic human right, regardless of whether the individual has the means to pay - some treatments cost more than a typical family's life savings.
2) Health care professionals are bound by law and their oaths of service to provide lifesaving treatment.
3) Asymmetric information.
4) High risk level.

- There is a debate (especially strong in the United States at present) as to whether these characteristics necessitate public ownership or increased government regulation of the health care industry.

Models

- Purely **private enterprise** health care systems are comparatively rare. Where they exist, it is usually for a comparatively well-off subpopulation in a poorer country with a poorer standard of health care - for instance, private clinics for a small, wealthy expatriate population in an otherwise poor country. But there are countries with a majority-private health care system with residual public service.
- The other major models are **public insurance systems**

☞ Social security health care model, where workers and their families are insured by the state.

☞ publicly funded health care model, where the residents of the country are insured by the state and health care workers are employed by the state. (See Italy)

☞ publicly funded health care model, where the residents of the country are insured by the state and those who provide health care work in private enterprises. (See Canada)

☞ Social health insurance, where the whole population or most of the population is a member of a sickness insurance company.

- In almost every country with a government health care system, a parallel private system is allowed to operate. This is sometimes referred to as two-tier health care. The scale, extent, and funding of these private system is very variable.

Health Care Delivery System: *Consist of:*

1) **Hospitals:** include number of hospitals and length of stay.
2) **Nursing homes and other health care facilities including :** rehabilitation centers, visiting nurses association and hospices provide alternatives to hospital and nursing home care for elderly and disabled people. Hospice: is a health care facility that provide inpatient and outpatient supportive care to terminally ill patients. Terminal illness refer to patients who are expected to live less than 6 months
3) **Physician:** Primary care physicians, including family practitioners, internisted, and pediatricians, provide initial care to patients.

Primary health care

- It is the foundation of the health care system. It is the first point of contact people have with the health care system. It could be through a doctor, a nurse, another health professionals, or perhaps through phone or computer-based services.
- Primary health care involves providing services, through teams of health professionals, to individuals, families and communities. It also involves a proactive approach to preventing health problems and ensuring better management and follow-up once a health problem has occurred. These services are publicly funded from general tax revenues without direct charges to the patient
- A patient may be referred for specialized care at a hospital or long-term care facility or in the community.

Levels of application of preventive measures :

1) **Primary prevention:** is aimed at reducing the incidence (new cases) of a disorder by reducing its associated risk factors. E.g. ,providing immunization of infants to prevent infectious illnesses. Improved obstetrical care to avoid premature birth and its associated problem, is primary prevention strategy aimed at decreasing the incidence of prematurity.
2) **Secondary prevention:** is aimed at reducing the severity of a disorder. For e.g mammography is a secondary prevention strategy. It does not prevent breast cancer from occurring, but because permits early identification and treatment of the disease, it ultimately reduces the personal and medical cost to treatment. Early identification and treatment of otitis media in children to prevent hearing loss.
3) **Tertiary prevention:** is a strategy aimed at improving the outcome of an existing disorder. For e.g. , an educational program for mentally ill adults aimed at helping them enter the work force does not prevent the condition nor reduce its severity. However, this tertiary strategy can ultimately improve the outcome for a patient with mental illness as well as reduce the cost to society of caring for that person.

Lec 5 – Health & Health Care System in Iraq: An Overview

Health and Health Care System in Iraq : An overview

Iraq Health System: Historical Background (Overview of Health Care in Iraq:)

- A formal health care system in Iraq began with British occupation following the end of the First World War in 1918. In 1 921 the first Directorate of Public health Services was formed which was upgraded to become a Ministry of Health in September of the same year.
- It was annexed in the following year to the Ministry of Interior as a Directorate. In 1952 the Ministry of Health was re-established and its organizational structure was formalized in 1959. The basic organization structure has changed little since then.
- In 1978, Iraq signed the Alma-Ata Declaration on Primary Health Care and strengthened the Department of Preventive Medicine through the construction of health centers throughout the country.
- In 1981, a Public Health Law was enacted. **It stated that** health is a right for each citizen and the responsibility of the state to provide all means to promote health, prevent and treat diseases.

The main functions the Ministry Health were described as

1) Establishment and management of health facilities.
2) Control of communicable diseases.
3) School health and maternal and child health services.
4) Promotion of nutritional
5) Provision of mental health services
6) Supply of drugs, vaccines, sera and other medical goods

- **Communicable disease :** An illness due to specific infectious agent or into toxic products capable of being directly or indirectly transmitted from man to man, animal to animal, or from environment to man or animal.
- Referral systems, communications, and training to integrate health center into a primary care strategy were planned for in the early 1980s. These plans were put on hold when war began. Services are provided by 269 hospitals (public and private), 1570 health centers, 308 health insurance clinics, 254 chronic illness pharmacies and 32 special pharmacies for rare drugs.
- Most health services are provided by MOH facilities. The private sector constitutes a rising minority of all beds and medical visits. Hospitals are managed by the Directorate of Technical Affairs. Outpatient care is managed by Directorate of Public Clinics. These afternoon clinics charge nominal fees and dispense drugs for patients registered in the chronic illnesses care system.
- Preventive services and the management of health centers is the responsibility of the Directorate of Preventive Medicine's Primary Health Care Department.
- **Health insurance clinics** are public clinics in rural areas where new graduates provide 2years of social service.

Current Status of Iraqi Health System

The Iraqi Health System consists of three main levels:

1) **Primary level:** composed of Primary Health Care Centers (PHCC) which are distributed all over the country .
2) **Secondary level:** consist of : general & Private hospitals.
3) **Tertiary level:** includes ; specialized centers hospitals and rehabilitation centers

Reasons for Iraq health system decline

1) Shift of emphasis in the country budget.
2) Mismanagement (Financial &Administrative).
3) Wars.
4) Politicization of economic sanction and the corruption associated with it.
5) War associated events in April 2003.

Consequences (Iraq health system decline) :

1) Decline in Quality of healthcare standards.
2) Inability to develop and upgrade health Professional's skills and knowledge.
3) Poor communication for both national and International.
4) Health facilities numbers didn't match the population needs and demands.
5) Violation of citizens right to access health services due to unsafe roads, prevailing , security situation, unpredictability of electricity &. water supply and poor sanitation

Health Care Resources

The doctor to population ratio increased from l97l to 1998 but was still low at 4.7 per 10,000 compared to most other countries in the region with ratios above 10 per 10,000. Nurses per population were always lower, and fell off precipitously after foreign workers left in 1990. There are 3.0 nursing staff per 10,000 people; in most countries there are 3 - 6 nursing personnel per physician. More than a third of the physicians are specialists, while less than a third of the nurses were trained in post-high school programs.

Financing

Until 1997 when the self financing system was introduced, health care services were financed entirely by the central government. Services were generally provided free of charge in hospitals, outpatients and dispensaries.
Quality of services did not notably improve but medical incomes up and funding of recurrent expenses became more sustainable.

Meeting immediate Health Needs

- Implement national health plan.
- Rehabilitating health facilities including (infrastructure, equipment, furniture & the capacity, building of health professionals.
- Strengthening the emergency response system and disaster preparedness. Established Emergency Operation Rooms to handle crisis, respond and prepare in Baghdad. Have replicated in other governorates. Contingency Plan initiated.

- Provision of equally distributed human resources all over the country
- Improving the communication between central and peripheral 1evels vertically and horizontally
- Improving access to effective primary health care especially child and maternal health with provision of services as close to the client as possible and with the full involvement of community groups (the vulnerable and the unreached)
- Secure the sustainable distribution of equipment and quality pharmaceuticals .
- Integrate technology into the health care system to improve health and healthy lifestyles .

Strategic Vision

Provision of accessible, affordable, available, safe and comprehensive quality health services of the highest possible standard that is financially sound and founded on scientific principles in order to meet the present and future health needs of the Iraqi people regardless of their ethnicity, geographic origin, gender or religious affiliation .

Developmental Priorities

District health authorities (DIIA) are responsible for planning and delivery of health services for each governorate. The DIIA should be provided with sufficient authority with accountability to improve quality of services.

Since health is not the sole responsibility of heath, a national body should be assigned responsibility of formulating a national health policy. A prepayment scheme would improve fairness and equity.

A health information system is needed. It should include indicators of : death rate after 48 hours of admission to a hospital, rate of nosocomial infection, postoperative infection rate, infant death rate in a pediatric ward, maternal death rate and others.

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2011 - 2012

Lec 6 – Communication Skill

Communication Skills

Communication skills is the ability to use language (receptive) and express (expressive) information
Effective communication skills are a critical element in your career and personal life.

Communication Goals:

1) To get and give information.
2) To persuade.
3) To ensure understanding
4) To get action.
5) To change behavior.

Communication in medical setting why ?

1) Doctors identify their patient's problems more accurately.
2) Patients are more satisfied with their care and can better understand their problems, investigation and treatment options.
3) Patients are more likely adhere to treatment and to follow advice on behavior change.
4) Patients distress and their vulnerability to anxiety and depression are lessened.
5) Doctors own wellbeing is improved (have greater job satisfaction and less work stress).

Communication process :

Communication is the process of sending and receiving information among people

Types of Communication :

1- On the basis of organization relationship : Formal & informal
2- On the basis of Flow : Vertical, Crosswise/Diagonal & Horizontal
3- On the basis of Expression : Verbal & Nonverbal

Communication Languages

1- Verbal language **2-** Nonverbal language

components of Communication :

1) Verbal messages - the words we choose
2) Paraverbal messages - how we say the
3) Nonverbal messages - our body language

These Three Components Are Used To :

- Send clear, concise message
- Receive and Correctly Understand Messages Sent to Us

- **paraverbal Messages** refers to the messages that we transmit through the tone, pitch, and pacing of our voices.

Verbal Language

- ☞ Like : Arabic, English, French,....etc.
- ☞ Verbal language skills : Listening, Speaking, Reading & Writing.

Effective Verbal Messages :

1) Are brief, succinct, and organized.
2) Are free of jargon.
3) Do not create resistance in the listener.

Non verbal Language :

Nonverbal messages are the primary way that we communicate emotions.

Some major areas of nonverbal behaviors to explore are :

- Eye contact
- Facial expressions
- Gestures
- Posture and body orientation
- Proximity
- Paralinguistic
- Humor

Non verbal Language

1) Account for about 55% of what is perceived and understood by others.
2) Are conveyed through our facial expressions as well as our postures & gestures.

Eye contact :

- The eyes can give clues to a person's thoughts
  - ☞ When someone is excited, his pupils dilate to four times the normal size
  - ☞ An angry or negative mood causes the pupils to contract
- Good eye contact helps the audience develop the interest in the speaker.
- Eye-contact helps regulate the flow of communication and reflects interest in others.
- Direct eye contact conveys interest, warmth, credibility and concern.
- Shifty eyes suggest dishonesty.
- Downward gaze may be a sign of submissiveness or inferiority.

Facial Expression :

- You have 80 muscles in the face that can create more than 7000 facial expression.
- The facial muscles produce the varying facial expressions that convey information about emotion, mood and ideas.
- Emotional expressions are one primary result of activity by the facial muscles.
- **There are six categories of facial expressions :**
  Happiness - Sadness - Anger - Disgust - Surprise - Fear
- Recognizing attitudes conveyed through Body language.
- Right postures to adopt at the Work Place and postures to avoid Pick up non-verbal signals from a customer's body language.

- Facial expressions can enhance or detract verbal communication Setting standards of Body Language to drive Customer Delight at the Public Office.

Gestures

- Gestures communicate as effectively as words, sometimes even better.
- Gestures support the verbal communication.
- They sometimes detract from what you say.
- **There are some negative gestures which should be avoided:**
  - Pointing at people - It is perceived as accusatory.
  - Fiddling with your items - It gives the impression that you are nervous.
  - Dragging the feet - It implies lethargy.
  - Head down - It suggests timidity.

Receiving messages:

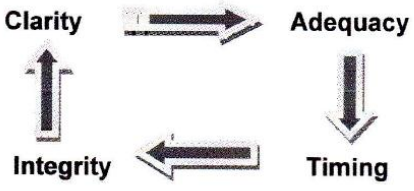
Listening

- Requires concentration and energy
- Involves a psychological connection with the speaker.
- Includes a desire and willingness to try and see things from another's perspective
- Requires that we suspend judgment and evaluation.
- **key Listening Skills**

Non verbal * Giving full physical attention to the speaker.
* Being aware of the speaker's nonverbal messages.

Verbal * Paying attention to the words and feelings that are being expressed.

What makes a good communication



Basic Interpersonal Communication Skills

1) Avoid barriers to communication
2) Send understandable messages effective communication
3) Actively listen
4) Utilize Non-verbal signals.
5) Give meaningful feedback.
6) Adapt to diversity of communication styles...try multiple channels.

Lec 7 - Physician

Physician

Physician

- Also known as MD, MBChB, MBBS, medical doctor, or simply doctor
- practices the ancient profession of medicine.
- is concerned with maintaining or restoring human health through the study, diagnosis, and treatment of disease or injury
- Physicians diagnose illnesses and prescribe and administer treatment for people suffering from injury or disease.
- They examine patients, obtain medical histories, perform, and interpret diagnostic tests. They counsel patients on diet, hygiene, life style and preventive healthcare.

Not responsible for patients cure

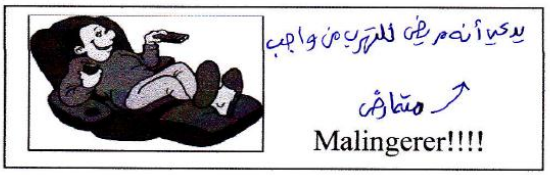
This properly requires both:

1) a detailed knowledge of the academic disciplines (such as anatomy and physiology) underlying diseases and their treatment, the science of medicine (basic + Clinical medicine).
2) a decent competence in its applied practice—the art or craft of medicine.

It offers a Social prestige

Patient

- Any recipient of medical attention, care, or treatment.
  The patient is most often ill or injured and in need of treatment by a physician, or other health care professional.
- **Client** who is visiting a physician for a routine check-up or advice (may also be viewed as a patient).



- The word patient originally meant "one who suffers".
  This English noun comes from the Latin word *patiens,* meaning ' I am suffering,'

Doctors for health: a who global stategy: doctors of the future

The 5-star doctor

1) care provider
2) decision maker
3) communicator
4) community leader.
5) manager

You may see your patient at

1) Hospital "Outpatients and inpatients"
2) Primary health care
3) Private clinic
4) Specialized centers

The nature of the relationship between physician and patient determines the success or otherwise of the contact

The superiority Approach

> "You will not learn me my job

Patient controlled consultation

> "You're paid to do what I tell

Length of Consultation

Average 8 minutes
Makes patient centred consultation styles more difficult
Patient – ideas, expectations, feelings, beliefs

Communication and Treatment

Advice reassurance and support from the doctor can have a significant effect on recovery. *The placebo effect* Dr-patient relationship itself becomes part of the therapeutic process

Physician's Responsibilities

1) human dignity
2) honesty
3) responsibility to society
4) confidentiality
5) continued study

Patient's Rights Right to :

1) privacy
2) be informed of advantages and potential risks of treatment
3) refuse treatment
4) confidentiality
5) give informed consent

Fault Line

- Doctors often blame patients when communication breaks down. But researchers have found that many doctors have shaky interviewing skills
- Doctors do more talking than listening. A new study published in (JAMA) found that 72% of the doctors interrupted the patient's opening statement after an average of 23 seconds. Patients who were allowed to state their concerns without interruption used only an average of 6 more seconds.
- Doctors often ignore the patient's emotional health. A study in university-based clinic found that when patients dropped emotional clues or talked openly about emotions, the doctor seldom acknowledged their feelings. Instead the conversation was directed back to technical talk.

The physician must Respect patients as experts in the experience of illness.

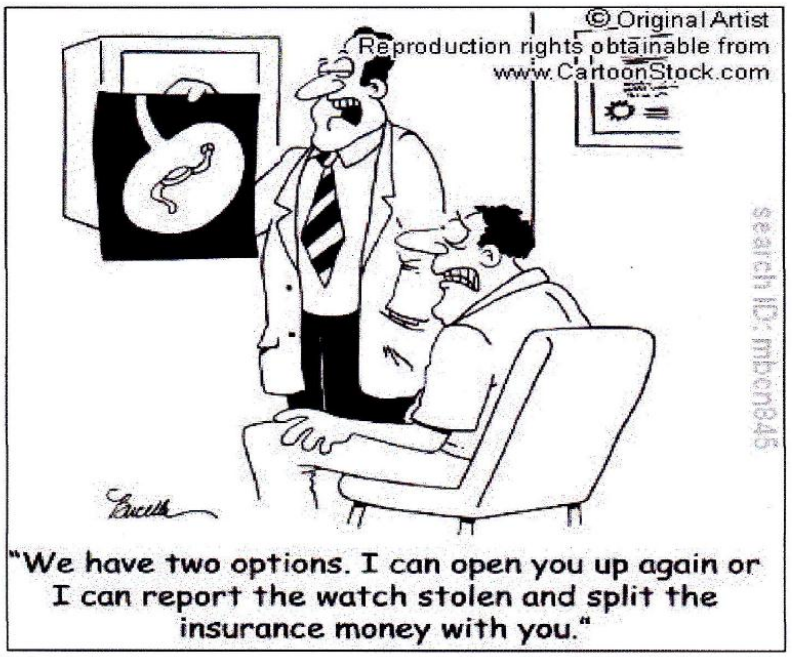
The physician approach:

H-P-L-P-T-H

1) History taking
2) Physical examination
3) Lab investigation تحقيق
4) Provisional diagnosis
5) Treatment prescription
6) Health promotion and disease prevention

You must

1) Introduce yourself
2) Putting the patient at ease → راحة - طمأنينة
3) Establishing rapport → علاقة مبنية على الثقة المتبادلة والوئام
4) Active listening
5) Demonstrating empathy → تفهم وهو مشاعر الآخر - تعاطف التعاطف
6) Do your best



Lec 8 – The Componants of Medical Terms, Root-Prefix-Suffix

The Components of Medical Terms Root, Prefix & Suffix

Medical terms are like individual jigsaw puzzles. They are constructed from small pieces (prefixes, combining forms, and suffixes) that make each term unique.
Once you understand the basic medical term structure and how these components fit together, you will be able to "build" almost any medical ward.

Roots (base)

Roots (base): refers to the main body of the word. It may be accompanied by a prefix, suffix, or other root (compound words)
It is the the core of a medical term. Most are derived from Greek or Latin
Ex. Greek word derm and Latin word cutane both refer to the skin
The root is the foundation of the medical term. All medical terms have one or more roots.

Examples of medical term roots are:

lip which means **"fat"**
hemat which means **"blood"**
cardi which means **"heart"**
gastr which means **"stomach"**

cyt/o.....**cell**
leuk/o.....**white**
my/o.....**muscle**
dermat/o.....**skin**
nephr/o.....**kidney**

Add the combining Vowel

The combining vowel (usually o) is used to link the root to the suffix or the root to another root. The combining vowel has no meaning of its own. When a vowel is linked to a root, this combination is called a ***"Combining form"***

lip + o = lipo = the combining form of "fat" , Hemat + o = hemato = the combining form

Examples of Combining Forms

Word Root	***Vowel***	***Combining Form***	***Meaning***	***Word Root***	***Vowel***	***Combining Form***	***Meaning***
Gastr	O	Gastr/o	stomach	Aden	O	Adeno/o	gland
Hepat	O	Hepat/o	Liver	phleb	O	phlebo/o	vein
Immun	O	Immun/o	Immune, safe	lacrim	O	lacrimoal	tear
Oste	O	Oste/o	bone	chondr	O	chondr/o	cartilage

Now add the Suffix

The suffix is the term ending. All medical terms have a suffix.

Examples of medical term suffixes are:

- **emia** which means **"blood condition"**
- **itis** which means **"inflammation"**
- **logy** which means **"study of"**
- **ic** which means **"pertaining to"** متعلق

And sometimes a Prefix

The prefix is a small part that is attached to the beginning of a term. Not all medical terms contain prefixes, but if present, the prefix can have an important influence on the meaning of the term.

Examples of medical term prefixes are:

hyper- which means **"above or excessive"**
post- which means **"after or behind"**
epi- which means **"upon, above, or beside"**

Prefixes

Is the word parts at the beginning of a term that usually indicates :

1. Location - (peri- endo...)
2. Time - (pre- post....)
3. Number - (mono,bi....)
4. Status - (sclero- dermo..)

Put all the pieces together and.... You've got a medical term !

Prefix+	Root +	Vowel+	Suffix =	Medical Term
	hemat	o	logy	hematology
epi	gastr	f	ic	epigastric
A	cardi	o	pathy	cardiopathy
peri	cardi	f	itis	pericarditis
	lip	f	oma	lipoma

study of blood
pertaining to above the stomach
disease of the heart
inflammation of heart peripheral
tumor of fat

Guidelines for combining Vowels

- **hepat/ic** , the suffix – ***ic*** begins with the vowel ***i*** ; therefore a combining vowel is not used.
- When connecting two word roots, a combining vowel is usually used even if vowel are present at the junction. **E.g. – oste/o/arthr/itis.**

Examples of Prefixes

Prefix	Word Root	Suffix	Medical Word	Meaning
Hyper- (above normal)	Therm (heat)	-ia (condition)	Hyper-thermia	Condition of excessive heat
Intra- (in, within)	Muscul (muscle)	-ar (relating-to)	Intra-muscular	Within the muscle
a, an (without, not)	Aesthesis (sensation)	-ia (condition)	anesthesia	Loss of sensation
Anti (against)	Pyretos (fever)	Ic (pertaining to)	antipyretic	Drug that reduce fever
Endo (within)	Krinein (to secrete)	Logy (to study)	Endocrine-logy	Study of ductless gland
Hemi (half)	Gaster (stomach)	Ectomy (remove)	Hemigastr-ectomy	Removal of half of stomach

Other common prefixes

Ab- away from **e.g.** Abduction
Ad- to, toward, near **e.g.** Adduction
Con- with, together **e.g.** Congenital
Dis- reversal, apart from **e.g.** Disease
Dys- bad, difficult **e.g.** Dysphagia
Exo- outside, on outer side, outer layer **e.g.** Exocrine
Para- beside, beyond, near to **e.g** paraplegia

Py/o = pus

- **Py/o/cele:** hernia containing pus
- **Py/o/gen/ic:** something that produce pus
  - genic = producing or forming
    - Oncogenic: promoting tumor production
    - Pathogenic: producing disease
- **Py/o/thorax:** accumulation of pus in the thoracic cavity
- **Purulent:** pus forming or pyogenic

Ot/o = Ear

- **Ot** = ear • **Ot/o/scope:** instrument used to examine the ear
- **Ot/o/scopy:** process of examining the ear with an otoscope
- **Ot/ic:** pertaining to ear
- **Ot/itis:** inflammation of the ear
  - **Otitis media:** middle ear infection
  - **Otitis externa:** outer ear (ear canal) infection
- **Ot/o/dynia** or **Ot/algia:** Ear pain

Audi/o = hearing

- **Audi/o/logy:** study of hearing
- **Audi/o/meter:** an instrument used to measure hearing
- **Audi/o/metry:** the process of measuring hearing
- **Audi/o/gram:** record made by the instrument used to test hearing
- **Audi/o/log/ist:** a hearing specialist

Rhin/o = Nose

- **Rhin/o/rrhea:** discharge from the nose
- **Rhin/itis:** inflammation of the nose
- **Rhin/o/plasty:** surgical repair of the nose
- **Rhin/o/tomy:** incision of the nose
- **Rhin/o/lith:** calculus or stone in the nose

Chol/e = Gall bladder, bile

- **Chol/e/cyst:** Gall bladder
- **Chol/e/cyst/o/gram:** an X-ray of the gallbladder
- **Chol/e/cyst/o/graphy:** the process of taking a gallbladder X-ray
- **Chol/e/cyst/itis:** inflammation of the gallbladder
- **Chol/e/cyst/otomy:** incision into the gallbladder
- **Chol/e/cyst/ectomy:** excision of the gallbladder

Brady- = slow

- **Brady/cardia:** Slow heart action
- **Brady/phag/ia:** Slowness in eating or swallowing
- **Brady/peps/ia:** Slow digestion
  - **Peps/o** = digestion

Tachy- = Fast, Rapid

- **Tachy/cardia:** Rapid heart action
- **Tachy/phag/ia:** Fast eating
- **Tachy/pnea:** Fast respiratory rate
- **Tach/o/gram:** Record of the velocity of the blood flow
  - **Tachos** = swiftness سرعة الحركة

Dys- = Painful, Faulty

Prefix for painful, faulty, diseased, bad, difficult, or abnormal

- **Dys/phag/ia:** difficult swallowing
- **Dys/trophy:** poor development
- **Dys/pnea:** difficult breathing
- **Dys/peps/ia:** poor digestion
  - **Peps/o, pep/tic** = digestion
- **Dys/men/o/rrhea:** painful menstruation → عملية أو حدة النزيف أو الطمث

Micro = small

- **Micro/cyst:** a very small cyst
- **Micro/cephal/us:** abnormally small head
- **Micro/cyte (adj.= microcytic):** a very small cell
- **Micro/cardi/a:** condition of having a small heart
- **Micro/gram:** 1/1000 of a milligram
- **Micro/surgery:** performed on minute structures a using microscope and small instruments

Macro- = Large

صغير جداً

- **Macro/cyte:** a very large cell
- **Macro/scop/ic:** can be seen with the naked eyes
- **Macro/cephal/us:** an abnormally large head
- **Macro/blast:** a large embryonic cell
- **Macro/cocc/us:** a very large coccus → نوع من البكتيريا

Other common prefixes

Sub- under
Supra- above, upper, excessive
Sym, Syn- together, with
Trans- Together, with
Ultra- Beyond, in excess
Pre- Before, in front of

SUFFIX

- One or two syllables or word parts attached to the end of the ward to modify or alter the meaning
- We usually read the meaning of medical terms from the suffix back to the beginning and then across.

It usually indicates:

❶ *Diagnosis:*

- **-itis** = inflammation: **e.g.**
  - **carditits:** Inflammation of the heart
  - **iritis:** Inflammation of iris (rainbow)
  - **appendicitis:** Inflammation of appendix
- **-cele** = hernia or protrusion: **e.g**
  - **cystocele:** Hernia of the bladde
  - **myelocele:** Protrusion of the spinal cord through vertebrae
- **-megaly** = Enlargement: **e.g.**
  - **cardiomegaly** = Enlargement of the heart
  - **hepatomegaly** = Enlargement of the liver
- **-emia** = Blood: **e.g.**
  - **hyperglycemia** = Abnormally high bl.sugar
  - **polycythemia** = Abnormal increase of RBCs
- **-malacia** = Softening: **e.g.**
  - **osteomalasia** = Softening of the bone
  - **encephalomalacia** = Softening of the brain
- **-oma** = tumor or neoplasm: **e.g.**
  - **adenoma:** Glandular tumor
  - **carcinoma:** Malignant tumor
- **-pathy** = Disease: **e.g.**
  - **adenopathy:** Glandular disease
  - **myopathy:** Disease of muscle
- **-ptosis** = Falling or downward: **e.g.**
  - **blepharoptosis:** Dropping of eyelid.
  - **nephroptosis:** Downward displacement of the kidney

❷ *Symptomatic suffixes:*

- **-algia** = pain: **e.g.**
  - **gastralgia:** Epigastric pain
  - **nephralgia:** Renal pain,
  - **neuralgia:** Nerve pain
- **-rrhea:** Discharge, flow; **e.g.**
  - **Diarrhea:** frequency of bowl action
  - **Rhinorrhea:** Increase nose discharge
- **-spasm:** Involuntary contraction: **e.g.**
  - **Chirospasm:** contraction of the hand (cheir=hand)
  - **Dactylospasm:** cramp in the finger or toe
- **-oid** = like: **e.g.**
  - **Fibroid:** Tumor of fibrous origin (like fiber).
  - **Lymphoid:** Resembling lymph.
  - **lipoid:** fat-like.
- **-osis** = increase, excess: **e.g.**
  - **Lymphocytosis:** Excess of lymph cells.
  - **Anisocytosis:** Increase of unequal-size cell
- **-penia** = deficiency, decrease: **e.g.**
  - **Leukopenia:** Abnormally decrease of WBCs
  - **Neurtopenia:** Abnormally decrease of neutrophils in the blood.
  - **Lymphopenia:** Decrease lymphocytes.

❸ *Pertaining to:*

- **-ac:** **e.g.** Cardiac
- **-ic:** **e.g.** Hepatic
- **-al & eal:** **e.g.** Bacterial, cereal
- **-ary:** **e.g.** Secondary
- **-ous:** **e.g.** Cutaneous

❹ *Operative suffixes:*

A) Suffixes Denoting Incisions:

- **-centesis** = puncture: **e.g.**
  - **Abdominal Paracentesis:** Puncture of abdominal cavity for aspirating abdominal fluid.
- **-ectomy** = excision, removal: **e.g.**
  - **Tonsillectomy:** removal of tonsils.
- **-stomy:** forming an artificial opening (mouth)
  - **Colostomy:** creation of an opening into the colon through abdominal wall.
- **-tomy:** incision, cut into: **e.g.**
  - **Phlebotomy:** incision into the vein
- **-lithotomy:** incision for removal of stone (s):
  - **Cholelithotomy:** Incision into gallbladder for removal of gallstones
  - **Nephrolithotomy:** Incision into kidney for removal of renal stone

B) Suffixes Denoting Reconstructive Surgeries:

- **-desis** = binding, fixation (of a bone,joint): **e.g.**
  - **Arthrodesis:** Surgical fixation of a joint.
  - **Tenodesis:** Surgical fixation of a tendon.
- **-pexy** = Fixation , suspension: **e.g.**
  - **Hystropexy:** Abdominal fixation of uterus.
  - **Orchiopexy:** Fixation of undescended testis
  - **Mastopexy:** Fixation of beast.
- **-rrhaphy** = Suture: **e.g.**
  - **Perineorrhaphy:** Suture of lacerated perineum.
  - **Staphylorrhaphy:** Suture of cleft palate. (uvula)
- **-plasty** = Surgical correction: **e.g.**
  - **Arthroplasty:** Reconstruction of a joint.
  - **Hernioplasty:** surgical repair of hernia.
  - **Rhinoplasty:** Reconstruction on a nose.
- **-tripsy:** Crushing or friction: **e.g.**
  - **Lithotripsy:** Crushing of a stone.
  - **Phrenicotripsy:** Crushing of the phrenic nerve (diaphragm)

❺ *Others:*

- **-logy:** = Study of: **e.g.**
  - **Biology:** Study of living organisms.
  - **Cardiology:** study of heart
  - **Gynecology:** Study of women diseases
- **-logist** = Specialist in the study of: **e.g.**
  - **Dermalogist:** Specialist in dermat. diseases.
  - **Cardiologist:** Specialist in cardiology.
  - **Rheumatologist:** Study of joint's diseases
- **-scope** = instrument: **e.g.**
  - **Stethoscope:** Medical device "auscultator"
  - **Otoscope:** used to examine the ear
- **-scopy:** = Visual examination: **e.g.**
  - **Gastroscopy:** Visualization of stomach
- **-genic** = origin: **e.g.**
  - **bronchogenic:** Originate in the bronchi (windpipe)
  - **neurogenic:** Originate in the nerve
- **-gram** = record: **e.g.**
  - **Electrocardiogram:** Record of the electricity in the heart
- **-lysis** = breaking down, destruction: **e.g.**
  - **hemolysis:** Breaking down of RBCs
  - **myolysis:** Destruction of muscular tissue

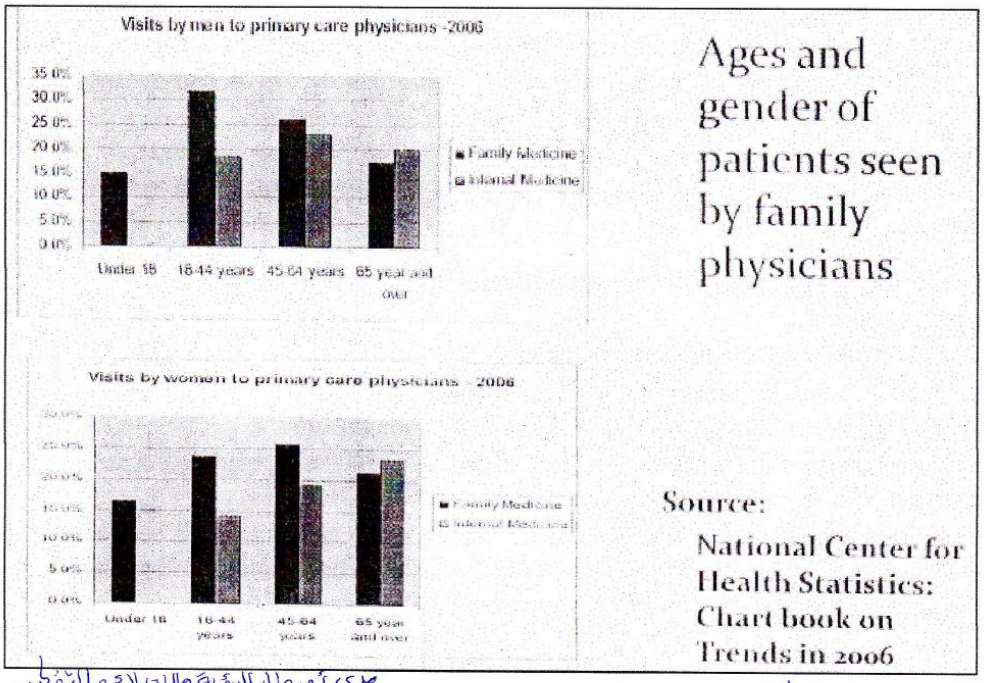
Lec 9 – The Concepts of Family Medicine

The concept of Family Medicine

Introduction

Primary health care

- Is the care provided by physicians specifically trained for and skilled in comprehensive first contact and continuing care for persons with any undiagnosed sign, symptom, (or health concern) not limited by problem origin (biological, behavioral, or social), organ system, or diagnosis.
- They care for individuals in the context of their family, their community and their culture, always respecting the autonomy of their patients. They also have a professional responsibility to their community.
- In negotiating management plans with their patients they integrate physical, psychological, social, cultural and existential factors, utilizing the knowledge and trust engendered by repeated contacts.



Family Medicine, Scope and philosophical Statement

- **Family medicine** is the natural evolution of historical medical practice. For hundreds of years, generalists provided all of the medical care available. They diagnosed and treated illnesses, performed surgery, and delivered babies.
- As medical Knowledge expanded and technology advanced, the number of specialists and subspecialists increased, while the number of generalists declined. The public became increasingly tired about the fragmentation of their care and the shortage of personal physicians who could provide initial, continuing and comprehensive care.
- The concept of generalist was reborn with the establishment of family medicine as medicine's twentieth specialty.

- The synonyms family practitioner or family physician have become widespread in Canada and the USA. The term general practitioner is common in the United Kingdom and some other common wealth countries.
- Family medicine is a 3-dimensional specialty, incorporating knowledge, skill, process.
- Although knowledge and skill may be shared with other specialties, the family medicine process is unique.
- **At the center of this process is the patient-physician relationship with the patient viewed in the context of the family.**
- **It is the extent to which this relationship is valued, developed and maintained that distinguishes family medicine from all other specialties.**

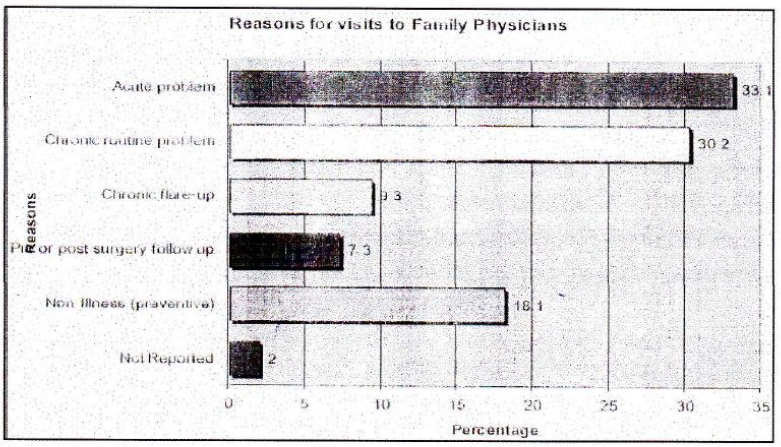
The place of family medicine in health care:

- Family Medicine is concerned with primary care (first contact care) whilst the hospital is concerned with secondary and tertiary care.
- A well developed Family Medicine service will relieve the workload on the hospital by looking after patients that could be managed outside the hospital; seeing specialists (in the hospital) for routine care is wasteful of time and money.
- Family doctors are trained in all areas of medicine. They can diagnose and treat the full range of problems. They know when to treat, and, if necessary, when to refer to another specialist.

These services include (beside the routine PHC centers services):

- minor illnesses
- post hospitalization and rehabilitative care.
- terminal care that the hospital can no longer help.
- continuing care of chronic problems like hypertension, diabetes.
- Care of conditions that can be done jointly with the hospital e.g., cardiovascular disease, bone and joint problems, chronic skin problems.
- When referral is indicated, the family physician refers the patient to other specialists or caregivers but remains the coordinator of the patient's health care. This prevents fragmentation of that care in both the outpatient and inpatient setting.

What's a typical week in a family medicine?



characteristics of family physician :

- **General:** سهل الوصول إليه عام
  - Family practice addresses the unselected health problems of the whole population.
  - It must be easily accessible with a minimum of delay; access to it is not limited by geographical, cultural, administrative or financial barriers. صفة - وصول

- **Comprehensive:** شامل
  - Family practice provides integrated health promotion. disease prevention, curative care, rehabilitation. and physical , psychological and social support to individuals.

- **Coordinated:** متكامل
  - Family practice can deal with many of the health problems presented by individuals at their first contact with their family physician.
  - whenever necessary, the family physicians should ensure appropriate and timely referral of the patient to specialist services or the health professionals.
  - Family physicians should act as care mangers in relation to other health and social care providers, advising their patients on health matters.

- **collaborative:** تعاوني
  - Family physicians should be prepared to work with other medical, health and social care providers, delegating to them the care of their patients whenever appropriate, with due regard to the competence of other disciplines. يُوكل

- **Family-oriented:** موجه للعائلة
  - Family practice address the health problems of individuals in the context of their family circumstances in which they live and work.

- **Community-oriented:** موجه للمجتمع
  - The patient's problem should be seen in the context of his or her life in the local community.
  - Family physician should be aware of the health needs of the population living in this community and should collaborate with other professionals, agencies from other sectors to initiate positive changes in local health problems. وكالات قطاع

Lec 10 – Medical Ethics: Definition & Scope

Medical ethics - definition and scope

Medical ethics is the discipline of evaluating the merits, risks, and social concerns of activities in the field of medicine. Many methods have been suggested to help evaluate the ethics of a situation. These methods tend to introduce *principles* that should be thought about in the process of making a decision.

System of values common to the medical profession

Systematic application of values concerning the practice of medicine.

Standards of behaviour by which the physician may evaluate his/her relationships with patients, colleagues and society.

"Patients are entitled to good standards of practice and care from their doctors.Essential elements of this are professional competence, good relationships with patients and colleagues and observance of professional ethical obligations."

Importance of Ethical Issues

1. Increase in technology
2. Better informed society
3. Doctors in Management
4. Public scrutiny

Scope of medical ethics includes:

- development of ethical codes and guidelines
- promotion of ethical practice
- prevention of ethical breaches
- recognition of ethical dilemmas
- resolution of ethical conflicts

Why Is Medical Ethics So Prevalent? Some factors:

1. Federal Government support, e.g. national commissions, publications
2. Rise of Medical Technology
3. American Distrust of the Professions
4. Rise of Professional Ethics
5. Critics of Medicine,
6. Rise of Team Health Care
7. A Women's Movement:

* male dominance of medicine

* focus on cure rather than care and prevention

8. Legalization, legislation, and litigation
9. Social interest in freedom and autonomy - decline in the status of medicine
10. Media Interest
11. Rise in the Cost of Medicine: how much can we afford?

Components of Medical Ethics

The Physician -- Patient Relationship
The Physician -- Physician Relationship
The relationship of the Physician to the System of Healthcare
The Relationship of the Physician to Society

The principles in medical ethics

The Principle of Non-Malfeasance → ارتكاب فعل ضار
The Principle of Beneficence → إحسان - تبرع
The Principle of Autonomy
The Principle of Veracity صدق - حقيقة
The Principle of Confidentiality or Fidelity أمانة - دقة الاداء
The Principle of Social Responsibility and Justice عدالة وانصاف

The Principle of Non-Malfeasance

first do no harm
sanctity of life
calculated risk or risk benefit

The Principle of Beneficence

do only that which benefits the patient
patient's welfare as the first consideration
care consideration competence

The Principle of Autonomy

right to information and self determination
free and informed consent
free will and accord - intentional participation in treatment
respect and dignity maintained

The Principle of Justice and Social Responsibility

Actions are consistent, accountable and transparent
not to discriminate on age, sex, religion, race, position or rank
greater good of society
respect of the Law
equity and distribution of burden & benefits

The Principle of Veracity

Truth telling

Obligation to full and honest disclosure

The Principle of Confidentiality

Based on loyalty and trust

Maintain the confidentiality of all personal, medical and treatment information

Information to be revealed with consent and for the benefit of the patient

Except when ethically and legally required

Disclosure should not be beyond what is required

تلميح غير صحيح - تورُّط

Practical Implications of Principles for Research

Respect for autonomy

(NB privacy) respect individual rights

informed consent

confidentiality (including for interviews)

use of data

protect those with ↓ autonomy (more vulnerable is study population, more care/ responsibility accrues to researcher)

Lec 11 – Ethical Issues in Medicine

Ethical Issues In Medicine

Two Ethically Problematic Situations

- Informed consent
- Surrogate decision makers
- Right to die/wrongful life
- Advance directives
- Confidentiality
  - When to breach confidentiality

Informed Consent

Ethical and Legal Bases of Informed Consent

- Autonomy
- Beneficence
- Assault and (intentional tort of) battery

Elements of informed consent

- Voluntariness
- Information
- Competence (capacity)

Voluntariness

- Freedom from undue influence
- Incentives for research?

Information

- Diagnosis, nature of treatment, risks, benefits, alternatives, prognosis with and without treatment
- "disclosure of the material risks generally recognized and accepted by reasonably prudent physicians which, if disclosed to a reasonably prudent person in the patient's position, could reasonably be expected to cause that person to decline the proposed treatment or procedure because of the risk of injury that could result" (Ketchup v Howard)
- Alternative standard of disclosure is physician standard

Competence

- § **31-9-2.**
- (c) For purposes of this Code section, "inability of any adult to consent for himself" [shall mean the adult] "lacks sufficient understanding or capacity to make significant responsible decisions" regarding his medical treatment or the ability to communicate by any means such decisions.
- Competence or capacity is specific to a particular decision
  - Competence is a legal decision, but used synonymously with capacity

- Range of competence:
  - *Ability to communicate decision*
    - Not refusing
    - Simple assent
  - *Simple Understanding*
    - E.g., able to paraphrase
  - *Appreciate complexities of decision*
    - Medical
    - Interpersonal
    - Spiritual
- Level of competence needed related to risk/benefit

Informed Consent

- Not just a piece of paper
- Informed consent is a means of engaging a patient in important health care decisions
- There is therapeutic value to true informed consent

Exceptions to Informed Consent

- Emergency exceptions to informed consent
- Consent is implied in emergency when patient is lacks capacity and surrogate unavailable
- Therapeutic privilege
- We are doctors, not lawyers

Surrogate Decision makers

- Spouse, parent, child
- Procedures which the patient would have wanted had the patient understood the circumstances under which such treatment or procedures are provided.

Confidentiality

- What I may see or hear in the course of the treatment or even outside of the treatment in regard to the life of men, which on no account one must spread abroad, I will keep to myself
  - Hippocrates
- Confidentiality is the obligation on the physician not to reveal what has been learned during the course of treatment
- Privilege is the right of a patient, established only by statute, whereby a patient may prevent his physician from testifying. Privilege is a legal right belonging only to the patient and not to the physician.

Breaking Confidentiality

- Reporting child abuse or neglect
- Reporting HIV to state
- Notifying sexual partners of HIV
- "Tarasoff" warnings
  - "protective privilege ends where the public peril begins"