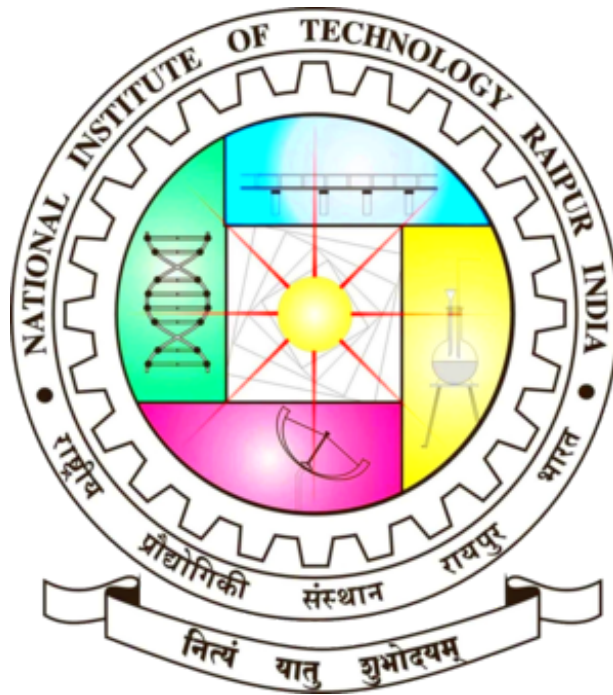


National Institute of Technology Raipur **(C.G.)**



Assignment 02 **Basic Biomedical Engineering** **Subject: Evolution of Modern Healthcare System**

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1. INTRODUCTION:

The development of modern healthcare system is increasing continuously. Since the 19's century , the health system has made discoveries in many areas , be in the field of medical devices or in the field of medicine. Today science is making connections development in the field of health. A health system, also known as health care system or healthcare system, is the organization of people, institutions, and resources that deliver health care services to meet the health needs of target populations.



According to the World Health Organization (WHO), the directing and co-ordinating authority for health within the United Nations system, healthcare systems' goals are good health for the citizens, responsiveness to the expectations of the population, and fair means of funding operations.

2. MEDICINE IN HEALTHCARE SYSTEM:

The history of medicine shows how societies have changed in their approach to illness and disease from ancient times to the present. For the example, The first modern medicine was morphine which was developed by a German scientist named Friedrich Serturmer.



He developed the drug by extracting the main active ingredient from opium. Doctors extensively used morphine for treating severe pain. Although there were many side effects from the medicines made in the old times, but as time progressed, science kept on making new discoveries in the field of medicine. Today medicine is continuously progressing all over the world. Invention is going on to cure small and big diseases with the help of only medicines.

3. MEDICAL EQUIPMENTS IN HEALTHCARE SYSTEM:

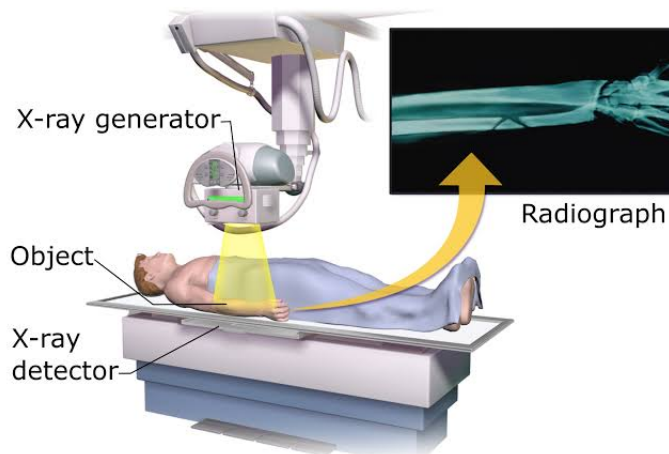
In the health field, medical devices are an important link between the doctor and the patient. Medical devices make the doctor's job even easier. In many areas, more than half the work is done by machines.

French physician René Laennec is credited with inventing the first stethoscope in 1816. It was pretty much just an ear trumpet pressed on the chest, but it marked one of the first times that physicians sought to explore the inner workings of the body without cutting a patient open.



The biggest change in the medical field happened with the discovery of the X-ray device. X-rays were discovered in 1895 by Wilhelm Conrad Roentgen (1845-1923) who was a Professor at Wuerzburg University in Germany.

Projectional radiography



4. HEALTHCARE SYSTEMS IN THE MODERN ERA:

In the modern era, the medical field is progressing even more rapidly. All the work is being done through online methods. Most of the devices in the medical field are being made portable. So that the devices can be made available anywhere and anytime.

Many such things have been developed and are being done in smart phones, laptops and computers from which all medical information can be obtained. Nowadays there are many apps in mobile, with the help of which we can know our heartbeat, heart rate, mother-in-law, body temperature etc.

Mobile apps are software programs that run on smartphones and other mobile communication devices. They can also be accessories that attach to a smartphone or other mobile communication devices, or a combination of accessories and software.

Examples of healthcare apps for patients:

- 1) Generis: DNA and Nutrition
- 2) Eyecarelive
- 3) Heal- Physician house calls are back
- 4) Leafly
- 5) Better Help - Online counselling etc.

5. CONCLUSION:

Evolution of modern healthcare system is wonderful. Many medical applications for smartphones have been developed and widely used by health professionals and patients. The use of smartphones is getting more attention in healthcare day by day. Medical applications make smartphones useful tools in the practice of evidence-based medicine at the point of care, in addition to their use in mobile clinical communication. Also, smartphones can play a very important role in patient education, disease self-management, and remote monitoring of patients. Along with this, science is also making continuous progress in medicines and medical devices. Some inventions are being made day by day. So we can say that the development of modern health care system is going on continuously.