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# Chapter 1

## Hospital and its Organization

### 1.1 Introduction

A **Hospital** is a health care unit consisting of medical, nursing staff and medical equipment that provides treatment to patients in all aspects. All the peoples are well known about a general hospital which provides primary treatment as well as an emergency treatment to patients. District hospitals have major facilities such as Intensive Care Unit (ICU), trauma centre, rehabilitation hospitals, and children hospitals.

A hospital can be defined as a complex organization or an institution which offers health and wellbeing of the people through diagnosis, treatment, prevention, rehabilitation, and cure by a team of qualified staff and provides the facilities for education and research.

The qualified and trained staff includes physician, staff nurse, dieticians, pharmacists, pathologists, radiologist, and anaesthetist, in a hospital.

Thus, the hospital is an institution which is scientifically, systematically and economically organized for prevention, diagnosis, and therapy of diseases.

#### 1.1.1 Why Hospital is called City within City (CWC)?

From the viewpoint of organizational structure and administrative department, the modern hospital almost looks like a 'city within the city'. The operation theatre is located within the four walls of hospital, a hotel which looks like a patient's rooms, a dormitory for student nurses, a school for training of nurses, dieticians, technicians, laboratories, a pharmacy, a canteen for food, laundry and linen services, delivery services, a post office, adequate internal and external communication system, blood bank, accounting and credit services, a reception services, public relation department and security patrols.

**Hospitals** that have facilities for the teaching and training of medical students; paramedical line nursing, pathological, radiological, physiotherapy students are called as teaching hospitals.

Such hospitals are operated by the Government or Non-government organization or Private personnel and approved by Medical Council of India, New Delhi.

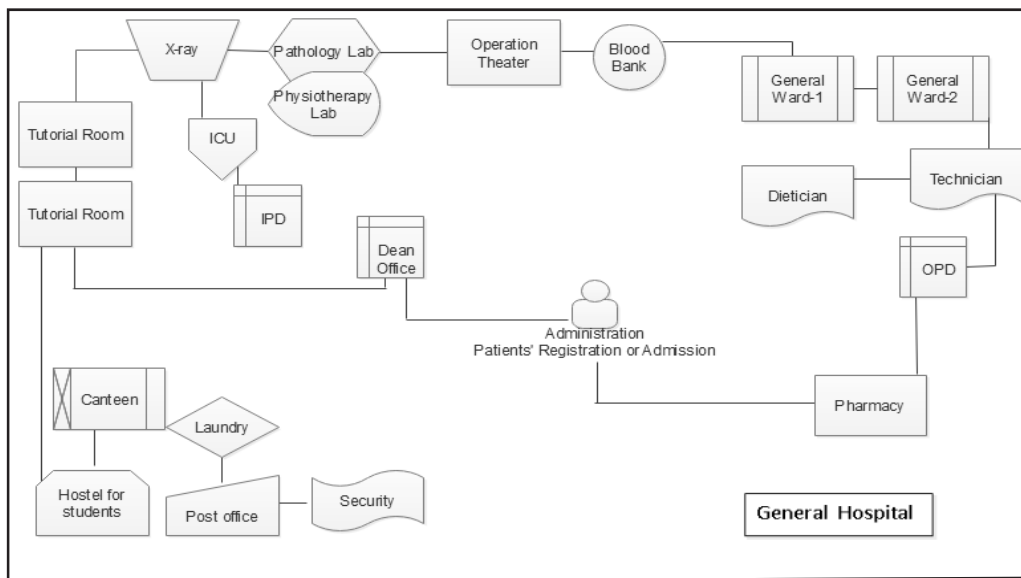


Figure 1.1 City within City.

## 1.2 Health Care- Primary, Secondary and Tertiary

The prevention, diagnosis, and treatment of disease, injury, illness or physical and mental impairment are collectively associated with human health. The medical practitioners, nurses, psychologists, dentists, midwives, pharmacists are professional healthcare provider. They provide healthcare services such as preventive, curative and rehabilitative care. There are three levels of care with certain unique patient needs. They are primary care, secondary care, and tertiary care.

### 1.2.1 Primary Health Care (PHC)

These are the basic and first level of contact between individuals and families replace with in the health system. The general and registered medical practitioners, the family physician, the physiotherapist are the usual primary health care providers.

Various services are provided by Primary Health Care (PHC) such as immunization, basic curative care services, maternal and child health services, prevention of common diseases or injuries. In addition, health education, family planning, sufficient provision of food and nutrition and safe drinking water are supplied. In India, primary healthcare is provided through a network of Sub-centres and Primary Health Centres in rural areas, whereas the family welfare centres provide such services in urban areas.

The healthcare service provider staff, in PHC, includes a medical officer, a staff nurse, the pharmacist, and other supporting staff from paramedical background offer a service to every 30000 populations in the plain area and 20,000 persons in tribal, hilly, and backward

areas. Each PHCs has to supervise 6 Sub-centres. The Sub-centre made up of one Auxiliary Nurse Midwife and Multipurpose Health Worker that provides a service to a population of 5000 in plain and 3000 persons in hilly and tribal areas.

**1.2.2 Secondary Health Care (SHC)**

Secondary Health Care assigns to the second tier of the health system, in which patients from Primary Health Care are referred to specialists in higher hospitals for treatment. Depending on the policies laid down by the National Health System, patients may access these services through physician referral or self-referral.

Cardiologists, urologists, dermatologists, and other such specialists are referred to as Secondary Health Care providers. The secondary health care services such as acute care; short time-period stay for short but serious illness in an emergency department of a hospital. Some secondary care providers do not work in hospitals that are psychiatrists, physiotherapists, respiratory therapists, speech therapists and so on. In India, the District Hospitals and Community Health Centres are the best examples of Secondary Health Centres in the public health system.

**1.2.3 Tertiary Health Care (THC)**

A third level service of the health system is referred as Tertiary Health Care. In this health system, specialized consultative care is provided to the patient who is admitted into these centres on referral from primary and secondary medical care.

Tertiary Health Care Services provide cancer management, cardiac surgery, neurosurgery, and a host of complex medical, surgical interventions, and other major medical complexities. Specialized Intensive Care Units (ICU), advanced various diagnostic support services, and trained medical personnel are the key features of tertiary health care. Under the public system in india, tertiary. The comparison of primary, secondary and tertiary healthcare is given in the following table.

**Table 1.1** Comparison of Primary, Secondary and Tertiary Healthcare

<b>Primary Healthcare</b>	<b>Secondary Healthcare</b>	<b>Tertiary Healthcare</b>
<ul style="list-style-type: none"> <li>• Common health problems</li> <li>• Health promotion</li> <li>• Care and rehabilitation</li> </ul> e.g. Sore throat, hypertension, vaccination	<ul style="list-style-type: none"> <li>• Patients having various abnormalities.</li> <li>• Requires special clinical expertise for care of patients.</li> </ul> e.g. Acute renal failure	<ul style="list-style-type: none"> <li>• Patients having complex disorders and it's management.</li> <li>• Requires more advanced curative facilities for patients.</li> </ul> e.g. Open heart surgery

### 1.3 Classification of Hospitals

The hospitals are classified on the following basis

A) Clinically oriented B) Ownership and administrative control C) System on medicine

#### A) Clinically Oriented

The word Clinical denotes the diagnosis and treatment of a disease in a patient. Different types of diseases require different modes and means of treatment with the right medication at right time.

Broadly the hospitals are of different types on the basis of clinical oriented.

##### A. Based on Type of People

- i. **Maternity Hospital:** These hospital concerns with specialization in caring for women during pregnancy and childbirth. The gynecological services i.e. related to the female reproductive system along with antenatal (during pregnancy) and neonatal (newborn child) care.
- ii. **Paediatric Hospital:** These hospital includes special medical care of infants, children, adolescents up to the age of 18 years.
- iii. **General Hospital:** It is a non-specialized hospital treating patients suffering from all types of medical conditions.

##### B. Based on Anatomy / Physiology

- i. **ENT Hospitals:** These hospitals concern with the diagnosis and treatment of disorders including ears, nose, and throat. **ENT doctors** are also called **Otolaryngologists**.
- ii. **Eye Hospitals:** These hospitals concern with the study and treatment of disorders, diseases of the eye and surgery of the eye. A doctor of medicine specialized in diagnosis, treatment, and services provider of eye and vision are called as **Ophthalmologist**.
- iii. **Kidney Hospitals:** These hospitals concern with kidney transplantation and dialysis services. The doctor specialized in this field is known as **Nephrologist**.
- iv. **Dental Hospitals:** These hospitals particularly involve in the study, diagnosis, prevention, *treatment* of diseases, and disorders of the oral cavity and teeth. The dental specialist provides dental treatment and surgery of surrounding oral tissues is known as **Denist**.
- v. **Heart Hospitals:** These hospitals includes treatments related to the heart and lungs. Mostly major surgery of the heart and lungs are done in these hospitals.
- vi. **Orthopedic Hospitals:** These hospitals include surgery of fractured bones, deformities, disorders of bones, spine diseases, and congenital disorders.
- vii. **Neurological Hospitals:** These type of hospitals generally includes surgery of neurons (Neurosurgery). These involves treatment, prevention diagnosis of the nervous system.

##### C. Based on Diseases

- i. Tuberculosis hospitals

- ii. Leprosy hospitals
- iii. Cancer hospitals
- iv. Mental hospitals
- v. Diabetes hospitals
- vi. Rehabilitation based on anatomy/physiology

## **B) Ownership and Administrative Control basis of Classification**

According to ownership and administrative control, the hospitals are classified as

### **a. State Government Controlled**

- a) i) General hospital ii) ESI (employee state insurance) hospital
- b) i) Stanley hospital –Chennai ii) Osmania hospital –Hyderabad
- c) i) Victoria hospital –Bengaluru

### **b. Private trusts Controlled**

- a) Ramachandra hospital –Chennai
- b) KMC hospitals-Udupi and Mangaluru
- c) Bombay hospitals –Mumbai

### **c. Municipality Corporation Panchayat Controlled**

- a) BMC hospital –Mumbai
- b) KEM hospital –Mumbai
- c) Chennai corporation hospital

### **d. Non-Government Controlled Religion Bodies Controlled**

- a) Hindu mission hospital –Chennai
- b) Ramakrishna mission hospital –Chennai and Kolkata
- c) Meenakshi mission hospital –Madurai
- d) Christian medical college hospital –Vellore

### **e. Public Limited Controlled**

- a) Apollo hospital –Chennai
- b) Wockhardt hospital-Bengaluru, Nagpur
- c) Vijaya hospital- Chennai

### **f. Miscellaneous Basis of Classification**

#### **a. Based on Bed Numbers**

- i. **Large hospitals**–More than 1,000 beds
- ii. **Medium hospitals**–500 to 1,000 beds
- iii. **Small hospitals**–100 to 500 beds
- iv. **Very small hospitals**–Less than 100 beds.

**b. Based on Costs**

- i. High cost or elite hospitals
- ii. Low cost/budget hospitals
- iii. Free hospitals

**c. Miscellaneous Hospitals**

Training hospitals (hospitals attached to medical and dental colleges)

**Table 1.2** Classification Based on Ownership and Administrative Control

<b>Ownership and Administrative Control</b>	<b>Types of Hospitals</b>
<b>a. State Government Controlled</b>	a) i) General hospital ii) ESI (employee state insurance) hospital b) i) Stanley hospital –Chennai ii) Osmania hospital- Hyderabad c) i) Victoria hospital –Bengaluru
<b>b. Private Trusts Controlled</b>	a) Ramachandra hospital –Chennai b) KMC hospital-Udupi and Mangaluru c) Bombay hospital –Mumbai
<b>c. Municipality Corporation Panchayat Controlled</b>	a) BMC hospital –Mumbai b) KEM hospital –Mumbai c) Chennai corporation hospital
<b>d. Non-Government Controlled Religion Bodies Controlled</b>	a) Hindu mission hospital –Chennai b) Ramakrishna mission hospital –Chennai and Kolkata c) Meenakshi mission hospital –Madurai d) Christian medical college hospital –Vellore
<b>e. Public Limited Controlled</b>	a) Apollo hospital –Chennai b) Wockhardt hospital-Bengaluru, Nagpur c) Vijaya hospital – Chennai
<b>f. Miscellaneous Basis of Classification</b>	<b>a) Based on Bed Numbers</b> <ul style="list-style-type: none"> <li>i. Large hospitals –More than 1,000 beds</li> <li>ii. Medium hospitals- 500 to 1,000 beds</li> <li>iii. Small hospitals – 100 to 500 beds</li> <li>iv. Very small hospitals – Less than 100 beds.</li> </ul> <b>b) Based on Costs</b> <ul style="list-style-type: none"> <li>i. High cost or elite hospitals</li> <li>ii. Low cost/budget hospitals</li> <li>iii. Free hospitals</li> </ul> <b>c) Training Hospitals</b> Hospitals attached to medical and dental colleges

## Based on the System of Medicine Hospital

### 1. Ayurvedic System of Medicine

*Ayurveda* is a *system of medicine* that has a historical background in India. Current and modernized practices initiated from the *Ayurveda* system of medicine which is traditional complementary and alternative *medicine globally*.

### 2. Unani System of Medicine

The *Unani system of medicine* was introduced in India first time by the Arabs and Persians around 11<sup>th</sup> century. The effective and safe medicine alternative for other system holds a long and impressive record in India. Several practitioners usually practicing the Unani system of medicine as one of the leading systems of medicine.

### 3. Naturopathy System of Medicine

Another alternative system of medicine in India is Naturopathy or Naturopathic medicine that employs an array of pseudoscientific practices (beliefs and practices which are claimed to be factual and scientific but are incompatible with scientific facts and technique) branded as "natural", "non-invasive", and as promoting "self-healing". Naturopathy as the name indicates the natural healing or self-healing. The idea of naturopathy system of medicine and techniques of naturopathy is based on folk medicine and vitalism instead of evidence-based medicine.

### 4. Homeopathy

*Homeopathy* is a *system of alternative medicine developed in 1796* by Samuel Hahnemann. He developed this system of medicine for the cure of various critical diseases and health care of the patient. The system of medicine is based on the principle of cure, a claim that a substance that causes the symptoms of a disease in healthy people would cure similar symptoms in ill people.

### 5. Allopathic System of Medicine

The Allopathy system of medicine is a commonly used system in the recent era for immediate effect and cure of disease. Recent medical *system* which treats the symptoms and disease of patients under treatment using drugs, radiations, and surgery.

In 1842, C.F.S. Hahnemann was the person who coined the term "Allopathy" to designate the usual practice of medicine (Allopathy).

## 1.4 Functions of a Modern Hospital

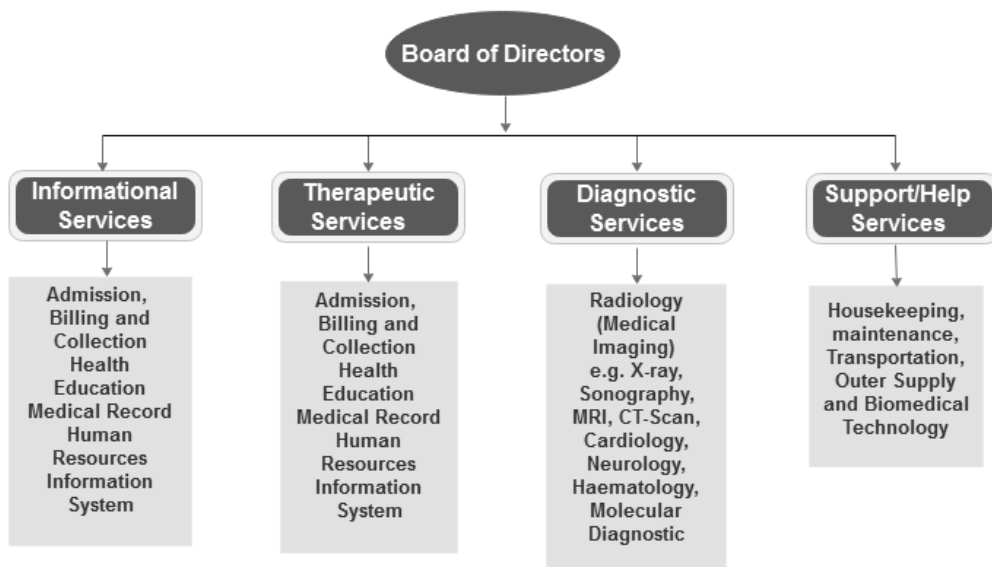
1. To provide the means and methods by which medical staff can work together in groups with the purpose of community and patient's health care.
2. To reduce the incidences of disease through early detection and treatment.
3. To estimate the need for facilities, supplies, and equipment utilized in hospitals and evaluate to control and maintenance of the hospital.
4. To provide a common link between the general public and policymakers.

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5. To estimate the requirements for various departments and to recommend various policies to maintain adequate and competent staff.
6. To stimulate the growth of medical sciences in which doctors and nurses receive their education and training in large (teaching) hospitals.
7. To develop and maintain an effective system of retrieval of clinical administrative records and reports.
8. To increase the quality and standards of medical practice.
9. To provide facilities to continue the education of all the medical professionals.
10. To participate in various safety programmes of the hospitals.
11. To initiate, utilize and participate in research projects design for improvement of patient care and other hospital services.
12. To participate in the financial planning for the working of the hospital.

### 1.5 Organization Structure and Administration of a Hospital

Every hospital whether it is large or small has an organizational structure that allows for the efficient management and management departments. Hospital administration is the most popular subfield of health administration and management. These are vital to ensure that medical facilities run efficiently and take quality care. Administrators are responsible to manage the business operations and taking care of staffing, public relations, patient rights with the management of budgets, finances, and other administrative tasks.



**Figure 1.2** Administrative Structure of Hospital Organization.



## 1.6 Hospital Pyramid: An Organizational Structure

Understanding the organizational structure of a hospital is important because it provides an idea about the responsibility of every person for each area of the hospital.

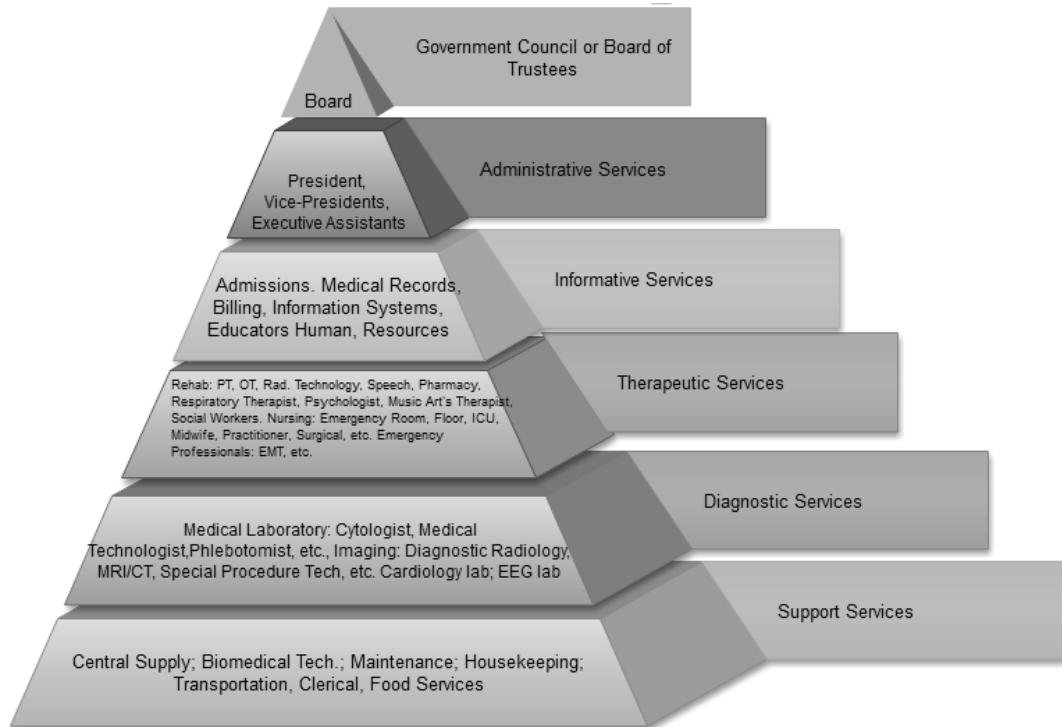


Figure 1.3 Organizational Structure of a Hospital Pyramid.

## 1.7 Hospital Services

### Common

1. Administration Services
2. Informational Services
3. Therapeutic Services
4. Diagnostic Services
5. Support Services

### 1.7.1 Administration Services

Hospital administrators manage and supervise the operation of departments

- a. To supervise budgeting and finance
- b. To establish hospital policies and procedures

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### c. To perform public relation duties

Hospital administrators body include Hospital President, Vice-Presidents, Executive Assistants, Department Heads, etc.

### 1.7.2 Informational Services

This includes Documents and Process information

**A. Admissions:** The public's first contact to be with hospital personnel and second to check patients in the hospital.

a. **Responsibilities of information services**-It include obtaining vital information (patient's full name, address, phone number, admitting doctor, admitting diagnosis, social security number, date of birth, all insurance information).

b. Patient who receives treatment or care is assigned to the hospital's room for admissions.

**B. Billing and Collection Department**- It is responsible for the billing of service offered to patients and collection of payments.

**C. Medical Insurance Claim Department**- Medical insurance claim department attached to various hospitals in recent years. A cashless claim facility is used when the patient under medical treatment if acquire health medical insurance. In some hospitals, insured patient ask to pay all expenses of hospitals and then claim for reimbursement of those expenses after discharge.

**D. Medical Records** - It deals with maintaining all medical records and its copies for future references.

**E. Information System** – It involves to provide the information regarding drugs and dosage forms through computers and hospital network.

**F. Health Education** – It concerns with health education to employee-staff and patient for their care of health.

**G. Human Resources** – It is related with recruiting/ hiring employees for the management of hospitals.

### 1.7.3 Therapeutic Services

Includes treatment in different departments e.g.

#### 1. Physical Therapy

a. It helps to improve large-muscle mobility and prevent or reduce permanent disability.

b. It helps to recover the health by treatments of exercise, ultrasound, massage, hydrotherapy, heat application, electrical stimulation.

#### 2. Occupational Therapy

a. This therapy is applicable to treat and help the patient to regain fine motor skills so that they can work.

- b. This treatment helps patients with hand-eye coordination, games, and recreation through arts and crafts. At the same time, they can develop balance and coordination with social activities which assist emotional health.

### **3. Speech/Language Pathology**

- a. This service provides to identify and evaluate, treat the patients with speech and language disorders efficiently.
- b. This service helps patients to manage problems created by speech disorder or impairment.

### **4. Respiratory Therapy**

- a. It provides treatment for patients with heart and lung diseases.
- b. It supports the treatment of oxygen, medications, breathing exercises to the patients.

### **5. Medical Psychology**

- a. This is concerned with the mental and well-being of patients/public.
- b. This treatment includes talk therapy, relaxation of muscles, medications/dosage forms, recreational therapies (art, music, dance) and group therapy.

### **6. Social Services**

- a. It helps patients by referring them to community resources for living assistance (housing, medical, financial and mental).
- b. The social services are provided by social workers for patients such as children and adults.

### **7. Pharmacy Services**

- a. Pharmacist prepares prescriptions written by the physician or dentist and dispense medications as per written orders.
- b. It provides information on drugs (prescribed medication) and correct ways to administer them.
- c. It helps to ensure drug compatibility.

### **8. Dietary Services**

It is mostly responsible for managing diets and helps the patient to maintain nutritionally sound diets.

### **9. Sports Medicine Services**

- a. It provides exercise services and rehabilitative services to athletes.
- b. It advises proper nutrition for sportsmen.
- c. It prescribes exercises to athletes and asks to practice to increase strength and flexibility and improve health.
- d. It protects athletes during sport by providing tape or padding for body parts.
- e. It uses to administer primarily first aid for sports injuries (if any).

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### **10. Nursing (RN, LVN, LPN) Services**

- a. It provides care for patients as directed by physicians that include medication administration, cares for intravenous (I.V.) solution, recording the improvements of the patients. In these services, the shift time interval is applicable to nurse practitioner, delivery nurse, neonatal nurse, emergency room nurse, surgical nurse, nurse-midwife, a nurse anesthetist in hospitals.
- b. Nursing is a service that cares about the patient's health and pays attention to medication during the treatment of a patient in the hospital.

#### **1.7.4 Diagnostic Services**

This service determines the cause(s) of illness or injury includes the following departments:

##### **1. Medical Laboratory**

This service concern with a diagnosis of disease based on blood, urine, stools, and body tissues which are examined to determine abnormalities in the patients.

##### **2. Imaging**

- a. By the use of image services for the body parts, the lesions and abnormalities are determined.
- b. Imaging services include Diagnostic Radiology, MRI, CT, Ultra Sound, X-ray, etc.

##### **3. Emergency Medicine**

It provides emergency diagnoses and treatment for the patient.

#### **1.7.5 Support Services**

Support services having various duties and responsibilities in the hospital includes maintaining blood bank and should provide to a patient in need of blood. Central supply provides sterile requirements during diagnosis and treatments. They also provide and maintain medical diagnostic equipment. Support services provide the maintenance of hospitals as essential services throughout the year.

This service provides support to the entire hospital includes the following departments:

##### **1. Central Supply**

- a. This department concerns with ordering, receiving, stocking and distributing all equipment and supplies used by healthcare facility.
- b. It sterilizes medical instruments and supplies during treatment or major complexities.
- c. It cleans clothing or gowns for patients and maintains hospital bed sheets clean.

##### **2. Biomedical Technology**

- a. These services provide the design of biomedical and build them equipment for treatment.

- b. Using this service, diagnose defective equipment (biomedical trained technicians) and its repair is possible.
- c. These service offers preventative maintenance to all equipment in hospitals (biomedical trained technicians) and pilot use of medical equipment to other hospital employees (biomedical technicians).

### 3. Housekeeping and Maintenance

- a. It maintains a safe and clean environment in and outside of the hospitals.
- b. Cleaners, electricians, carpenters, gardeners are appointed for the maintenance of the hospital and surrounding.

Thus, in an established hospital, the various professionals impart their role for the care of the patients. All healthcare professionals participate for healthcare of patient. The pharmacist who is a part of the hospital is performed his functions for the patients' care in the community.



Figure 1.4 Various Hospitals, Medical Colleges and Multispeciality Hospitals.

## Exercise

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### Multiple Choice Questions

- Which of the following service keeps the record of registration of patent, record of diagnosis and monitoring of charges.  
(i) Drug distribution (ii) Pharmacy service  
(iii) Auxillary service (iv) Nursing service
- The required number of pharmacists are ..... for a hospital consisting of bed space up to 200.  
(i) 3 (ii) 8 (iii) 5 (iv) 10
- Who was the first professor to establish B.Sc.(Pharmacy) course in Banaras Hindu University (BHU).  
(i) Prof. M. L. Shroff (ii) Dr. V. K. Osterling  
(iii) Dr. Jivraj Mehta (iv) Mr. B. D. Miglani
- List of equipment's required for manufacturing was specified in .....  
(i) Pregnancy act 1971 (ii) Poison act 1990  
(iii) Drugs and Cosmetics act 1940 (iv) DPCO act 1985
- Medical laboratory service concern with a diagnosis of disease based on .....  
(i) Blood (ii) Urine  
(iii) Stool (iv) All the above

### Essay Type Questions

- Define hospital. Write in detail classification with suitable examples.
- Classify hospitals according to ownership. Write the organization structure of a hospital in detail.
- Write the functions of modern hospitals. Write in detail common hospital services performed by staff involved in the hospital and their functions.
- Classify hospitals? Write an organizations with the functions of the hospital.

### Short Type Questions

- Discuss the classification of hospitals based on clinical and non-clinical basis.
- Differentiate between therapeutic services and diagnostic services?
- Classify the hospitals on the basis of healthcare.

**Two Marks Questions**

1. Define hospital. Write its functions?
2. What are primary hospitals?
3. Write the organization structure of hospitals?
4. Enlist the various services involved in hospitals.
5. Classify hospitals on the basis of medicines.
6. Define hospital and classify them on the basis of bed size.