

HOSPITAL ADMINISTRATION
MASTER OF BUSINESS ADMINISTRATION
(HOSPITAL ADMINISTRATION)
FIRST YEAR, SEMESTER-II, PAPER-VI

Lesson writers

Dr. P. Srinivasa Rao

Faculty
Dept. of Hospital Administration
Acharya Nagarjuna University

Dr. Sayyed Sadhik

Faculty
Dept. of Hospital Administration
Acharya Nagarjuna University

Dr. B. Sridhar Reddy

Faculty
Dept. of Hospital Administration
Acharya Nagarjuna University

Editor

Dr. V. Tulasi Das

Associate Professor
Dept. of Hospital Administration
Acharya Nagarjuna University

DIRECTOR, I/c.

Prof. V. Venkateswarlu

M.A., M.P.S., M.S.W., M.Phil., Ph.D.

CENTRE FOR DISTANCE EDUCATION
ACHARYA NAGARJUNA UNIVERSITY
NAGARJUNA NAGAR 522 510

Ph: 0863-2346222, 2346208

0863- 2346259 (Study Material)

Website www.anucde.info

E-mail: anucdedirector@gmail.com

MBA (HA): Hospital Administration

First Edition : 2025

No. of Copies :

© Acharya Nagarjuna University

This book is exclusively prepared for the use of students of MASTER OF BUSINESS ADMINISTRATION (Hospital Administration) Centre for Distance Education, Acharya Nagarjuna University and this book is meant for limited circulation only.

Published by:

Prof. V. VENKATESWARLU
Director, I/c
Centre for Distance Education,
Acharya Nagarjuna University

Printed at:

FOREWORD

Since its establishment in 1976, Acharya Nagarjuna University has been forging ahead in the path of progress and dynamism, offering a variety of courses and research contributions. I am extremely happy that by gaining 'A+' grade from the NAAC in the year 2024, Acharya Nagarjuna University is offering educational opportunities at the UG, PG levels apart from research degrees to students from over 221 affiliated colleges spread over the two districts of Guntur and Prakasam.

The University has also started the Centre for Distance Education in 2003-04 with the aim of taking higher education to the door step of all the sectors of the society. The centre will be a great help to those who cannot join in colleges, those who cannot afford the exorbitant fees as regular students, and even to housewives desirous of pursuing higher studies. Acharya Nagarjuna University has started offering B.Sc., B.A., B.B.A., and B.Com courses at the Degree level and M.A., M.Com., M.Sc., M.B.A., and L.L.M., courses at the PG level from the academic year 2003-2004 onwards.

To facilitate easier understanding by students studying through the distance mode, these self-instruction materials have been prepared by eminent and experienced teachers. The lessons have been drafted with great care and expertise in the stipulated time by these teachers. Constructive ideas and scholarly suggestions are welcome from students and teachers involved respectively. Such ideas will be incorporated for the greater efficacy of this distance mode of education. For clarification of doubts and feedback, weekly classes and contact classes will be arranged at the UG and PG levels respectively.

It is my aim that students getting higher education through the Centre for Distance Education should improve their qualification, have better employment opportunities and in turn be part of country's progress. It is my fond desire that in the years to come, the Centre for Distance Education will go from strength to strength in the form of new courses and by catering to larger number of people. My congratulations to all the Directors, Academic Coordinators, Editors and Lesson-writers of the Centre who have helped in these endeavors.

*Prof. K. Gangadhara Rao
M.Tech., Ph.D.,
Vice-Chancellor I/c
Acharya Nagarjuna University.*

**MASTER OF BUSINESS ADMINISTRATION
(HOSPITAL ADMINISTRATION)**

Programme Code: 197

**PROGRAMME SYLLABUS
1st YEAR – 1nd SEMESTER SYLLABUS**

206HA26: HOSPITAL ADMINISTRATION

Unit – I: Concept of Hospitals: Definition, philosophy and objectives of Hospital; Classification of Hospitals; Hospital as a System and its peculiarities; Intramural and Extramural Functions of a Hospital; Managerial activities in a Hospital; Relationship between a Hospital and its community.

Unit – II: Introduction to Hospital Administration: Meaning, nature and principles of Administration; Administration vs Management; Meaning and rationale of Hospital Administration; Roles of Hospital Administration; Skills of Hospital Administration; Types of Hospital Administrators; Professional bodies of Hospital Administrators; Code of Ethics for Hospital Administrators.

Unit – III: Overview of Hospital Services: Administrative Services; Medical and Ancillary Services; Nursing Services; Supportive Services: Pharmacy, medical stores, housekeeping, ward management, CSSD, Laundry, Dietary, Security, and Transport.

Unit – IV: Hospital Management: Levels and Roles: Governing Board; Executive Board and Advisory Board; CEO; Medical Administration Nursing Administration; Hospital Administration; Middle Level Managers in Hospital and their Responsibilities; Structuring Hospital Organization

Unit – V: Evaluation of Hospital Services; Management Techniques in Hospitals; Recent Advances in Hospital Administration.

Reference Books:

1. Sakharkar, B. M., & Jaypee Brothers (Jaypeedigital). (2009). Principles of Hospital Administration & Planning. (Jaypee eBooks.) Jaypee Brothers Medical Publisher (P) Ltd
2. Srinivasan, S. (1982). Management process in health care. New Delhi: Voluntary Health Association of India.
3. JoshiDC, Joshi, Mamta, (2009). Hospital administration. Jaypee Brothers Medical Publications
4. Gupta, M. C., & Mahajan, B. K. (2003). Textbook of preventive and social medicine. New Delhi: Jaypee Brothers Medical Publishers

CONTENTS

S.No	TITLES	PAGE No
1	Introduction to Hospital	3-21
2	Hospital as a System	22-42
3	Managerial Activities in a Hospital	44-59
4	Hospital Administration	60-69
5	Roles of Hospital Administrators	71-92
6	Professional Bodies	93-117
7	Overview of Hospital Services	118-139
8	Nursing services	140-154
9	Supportive Services	155-181
10	Levels and Roles of Hospital Management	182-196
11	Medical Administration Nursing Administration	197-216
12	Middle Level Managers and Structuring in Hospitals	217-239
13	Evaluation of Hospital Services	240-262
14	Management Techniques in Hospitals	263-273
15	Recent Advances in Hospital Administration	274-305

LESSON-1**INTRODUCTION TO HOSPITALS****Learning Objectives**

After studying this lesson, the learner will be able to:

1. **Explain** the concept and evolution of hospitals as healthcare institutions.
2. **Analyse** the changing role of hospitals in modern healthcare delivery.
3. **Describe** the philosophy and objectives of hospitals in society.
4. **Distinguish** between different classifications of hospitals.
5. **Evaluate** the role of hospitals in community health and public welfare

Structure

- 1.0 Introduction
- 1.1 Evolution of Hospitals
- 1.2 Hospitals in India
- 1.3 Changing roles of Hospital
- 1.4 Definition
- 1.5 Philosophy of Hospital
- 1.6 Objectives of Hospital
- 1.7 classification of Hospital
- 1.8 Summary
- 1.9 Key words
- 1.10 Self-Assessment Questions
- 1.11 References

1.0 Introduction

Hospitals are vital institutions within any given societal setting, normally acting as the backbone of the modern healthcare system. They offer a broad array of medical services, which are targeted at diagnosing, treating, and preventing both illnesses and injuries. As centers of healing, hospitals integrate skilled healthcare personnel with advanced technologies and specialized infrastructure to ensure individuals receive timely and effective care. From simple illnesses to life-threatening medical conditions, hospitals have come to play a major role in securing public health and enhancing quality of life.

A hospital is far more than a single building in which many patients are treated; it is a multi-disciplinary organization functioning on coordinated teamwork. Doctors, nurses,

pharmacists, technicians, therapists, and administrative personnel all work together to provide patient-centered care. Each department of the hospital, including but not limited to emergency services, outpatient clinics, inpatient wards, the intensive care units, diagnostic laboratories, radiology centers, and operating theatres, has something to contribute in the smooth running of the institution. Such diversity within these departments enables hospitals to provide medical requirements at different levels, from routine consultations to life-saving surgical procedures.

A modern hospital is a technologically sophisticated place. Advances in medical equipment, diagnostic tools, and information systems have transformed the mode of delivery of healthcare service. The MRI scanners, robotic surgery systems, electronic health records, telemedicine platforms, and advanced life-support systems enhance the accuracy, safety, and speed of the medical interventions. The patients benefit from more precise diagnoses, minimally invasive treatments, shorter recovery times, and overall improved outcomes. New scientific findings and technologies are regularly incorporated into hospitals' modes of operation to maintain high standards of care and support ongoing medical research.

Another important function of hospitals is health promotion and disease prevention. In addition to the treatment of diseases, they also provide vaccinations, health screening, patient education, and rehabilitation programs. Such activities support people in their aim to live a healthy lifestyle and avoid further deterioration of their disease condition. Besides this, they function as training centers for future doctors, nurses, and other para-medical professionals. In such a manner, they help to develop a skilled and competent workforce for the future. Most hospitals are deeply involved in research studies and academic collaborations, making them pivotal in developing knowledge and new interventions.

Hospitals play a great role in the management of public health emergencies and disasters. Be it an outbreak of diseases, natural calamities, or disasters involving mass causality, the management of hospitals provides emergency medical services and liaises with appropriate government agencies for the protection of the community. Their efficiency in mobilizing resources rapidly and providing emergency care during crises makes them indispensable.

. Introductory Case Study:***Evolution and Role of AIIMS, New Delhi, as a Modern Public Hospital*****Background of the Organisation / Sector**

The All India Institute of Medical Sciences (AIIMS), New Delhi, established in 1956, represents one of India's most prominent public hospitals combining patient care, medical education, and research. Conceived as a national centre of excellence, AIIMS reflects the evolving concept of hospitals from curative institutions to comprehensive healthcare systems.

Contextual Trigger / Problem

India faced an acute shortage of advanced medical facilities and trained specialists in the post-independence period. The need was felt for an institution that could provide high-quality tertiary care while also contributing to medical education and research.

Stakeholders Involved

- Government of India
- Medical professionals and trainees
- Patients from across the country
- Public health system

Managerial / Behavioural Issues

- Balancing patient care with teaching and research
- Managing large patient inflow
- Ensuring equity and accessibility
- Integrating preventive, promotive, and curative services

Relevance and Importance to the Lesson

AIIMS illustrates how hospitals have evolved beyond treatment centres into integrated institutions addressing education, research, community health, and national health priorities.

Explicit Linkage to Lesson Concepts

- Evolution of hospitals
 - Changing role of hospitals
 - Philosophy and objectives of hospitals
 - Hospitals in India
-

1.1 Evolution of Hospitals

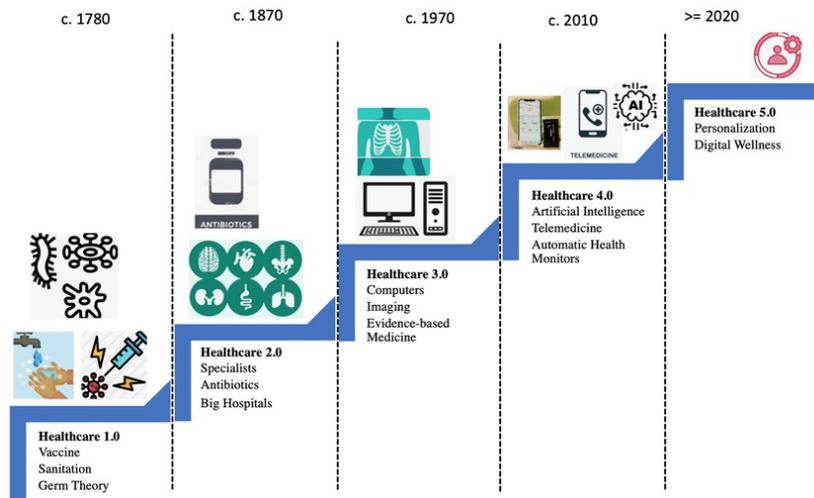


Figure Title: Evolution of Hospitals

Explanation:

This figure depicts the historical evolution of hospitals from charitable shelters and religious infirmaries to modern scientific healthcare institutions. It visually reinforces the lesson concept that hospitals have transitioned from custodial care to comprehensive centres providing preventive, curative, rehabilitative, teaching, and research services.

Lesson Linkage:

- Evolution of hospitals
- Changing concept of hospitals

1.1.1 Medieval Period

The word “hospital” originates from the Latin ‘hospice.’ In fact the word hospital, hostel and hotel all derive from the common Latin root hospice. The place or establishment where a guest is received was called the hospitium or hospitale. The term hospital has at different times been used to refer to an institution for the aged and infirm, a place of rest, a hostel where people lived as a small community, and an institution for the care of the sick and wounded. Lodging for the pilgrim and the wayfarer was also one of the primary functions of the early hospital. In its earliest form, the hospital was aimed at the care of the poor and the destitute, giving the aura of a “almshouse”.

In the early Greek and Roman civilisations, the temples of the gods were used as hospitals. These hospitals were not separate entities but formed an integral part of the temples. Little distinction was made between the disease and the supernatural powers that caused

diseases, where mysticism and superstition saddled medical practice, and where more soul healing than physical healing was practised. The Greeks and Romans considered the temples of gods and their priests responsible for providing shelter and sustenance to the sick. Charity was the principal source for defraying illness costs of the poor. It was in Greece that Hippocrates—universally acknowledged as the father of western medicine—was born, in 460 BC (see Appendix 1 for the significance of the rod of Aesculapius and the snakes in medical emblems). With the birth and spread of Christianity there was an impetus to hospitals which became an integral part of the Church and its monasteries. Medicine was reverted to religion, the nuns and monks practising it. Gradually, these Christian hospitals replaced those of Greece and Rome. During the crusades. (Christian expeditions to recover the Holy land from Mohammedans, 1100-1300 AD) over 19,000 hospitals were founded in Europe to cater for those suffering from war injuries and diseases. The order of St. John was one such sect, responsible for creating chains of hospitals. This order has survived all these centuries and still functions as St. John Ambulance Corps in England with its branches all over the world, including India.

Subsequently, certain decrees issued by the Church for divesting religion from medical succour had the effect of lowering the status of the entire medical profession and stopping the monks from practising medicine. In 1163 AD, the Church formally restricted the clergy from working as physicians, and this restriction heralded the beginning of the end of hospitals towards the end of the Crusades (around 1300 AD). During early nineteenth century, nurses of religious orders were replaced by lay people who treated patients badly. Patients were crowded together in common bed, and infection and gangrene were commonplace all over the hospitals.

Some of the notable hospitals established in the Western world date back to the ancient times. In 542 AD the earliest hospital was founded at Hotel Dieu in Paris. St. Bartholomew's hospital in London dates from the year 1123 AD. In keeping with the hospital philosophy then prevalent, there was a general tendency to lump together the sick, the physically handicapped, the socially unwanted and the pauper all together. The Spanish built the first hospital in Mexico city in 1524 and the French in Canada. In North America, the first general hospital, Pennsylvania Hospital, opened in 1751, Bellevue hospital in New York in 1736 and Massachusetts hospital in 1811 AD. This was followed by establishment of hospitals in quick succession in many other places in USA.

1.1.2 Nineteenth Century

The middle of the nineteenth century saw the arrival of Florence Nightingale on the hospital scene. It fell upon Florence Nightingale to revolutionise nursing by supplementing good intentions and humane concern with scientific approach to nursing through training. The working of hospitals underwent a sea change as a result of her efforts when she was sent to attend to the sick and wounded at the Crimean War (1853-1856 between the joint forces of Britain and France with Russia. Total casualties: Allies—2,52,000, Russian—2,56,00) in 1854. This was the turning point in the history of hospitals in the Western World. Various developments in medical sciences gave impetus to further progress in the hospital field. Discovery of anaesthesia and the principles of antisepsis (asepsis was to follow later) were two most important influences in the development of hospitals. Discovery of steam sterilisation in 1886, X-ray in 1895 and rubber gloves in 1890 revolutionised surgical treatment and gave further philip to hospital development. Great progress was being made in cellular pathology, clinical microscopy, bacteriology and so on during the period from 1850 to 1900, and each one of these had a definite impact on hospital progress. Besides the scientific advances during this period, rapid industrialisation during the last quarter of 19th century generated enormous funds in the Western World. Hospital development in the 20th century has, therefore, been explosive, especially in the USA and Europe. A hospital was no longer a place where people went to die. The advances in medical science brought about by antibiotics, radiation, blood transfusion, improvement in anaesthetic techniques and the spectacular advances in surgical techniques and medical electronics have all brought about tremendous growth and improvement in hospital services.

1.2 Hospitals in India

Hospitals in India form one of the largest and most diverse healthcare networks in the world, serving a population of over 1.4 billion people. They play a critical role in the delivery of medical services that range from primary care to advanced tertiary treatments. The Indian healthcare system comprises public (government) and private hospitals, each of which significantly contributes to the nation's health infrastructure. While public hospitals provide affordable care and serve large numbers of low-income and rural populations, private hospitals are recognized for their specialized services, advanced technology, and quality facilities.

There is great variation in the structure of hospitals with regard to ownership, size, and level of care. Government facilities include district hospitals, community health centres, primary health centres, AIIMS institutions, and state medical college hospitals. The main goal of these

facilities is to make healthcare accessible and at affordable costs. On the other hand, private facilities range from small nursing homes to big multispecialty and superspecialty hospitals such as Apollo, Fortis, and Manipal, among others. At times, many advanced treatments in cardiology, oncology, neurology, orthopedic, and organ transplantation are done in these institutions.

The medical technology of many Indian hospitals has greatly improved over these years. Most urban hospitals now boast of modern diagnostic tools such as MRI and CT scans, robotic surgery systems, and advanced critical care units. Telemedicine and digital health records have also expanded, improving access to health services, particularly in remote areas. Despite these developments, there are still formidable challenges posed by infrastructure gaps, including seriously overcrowded public hospitals, inadequate numbers of trained professionals, and a poor distribution of medical facilities between urban and rural settings.

The hospitals in India also contribute significantly to various public health programs: immunization, maternal and child health services, and the management of infectious diseases like tuberculosis and malaria. During health emergencies like COVID-19, Indian hospitals showed resilience by increasing the capacity of ICUs, deploying rapid testing, and expanding oxygen support systems. Additionally, teaching hospitals and medical colleges throughout the country help train doctors, nurses, and other allied health professionals to strengthen the overall healthcare workforce.

1.3 The Changing Role of Hospitals

From its gradual evolution through the 18th and 19th centuries, the hospital both in the eastern and the western world—has come of age only recently during the past 50 years or so, the concept of today's hospital contrasting fundamentally from the old idea of a hospital as no more than a place for the treatment of the sick. With the wide coverage of every aspect of human welfare as part of health care—viz. physical, mental and social wellbeing, a reach out to the community, training of health workers, biosocial research, etc.—the health care services have undergone a steady metamorphosis, and the role of hospital has changed, with the emphasis shifting from:

- i. acute to chronic illness

- ii. curative to preventive medicine
- iii. restorative to comprehensive medicine
- iv. inpatient care to outpatient and home care
- v. individual orientation to community orientation
- vi. isolated function to area-wise or regional function
- vii. tertiary and secondary to primary health care
- viii. episodic care to total care.

Figure 2: Changing Role of Hospitals in Healthcare Delivery

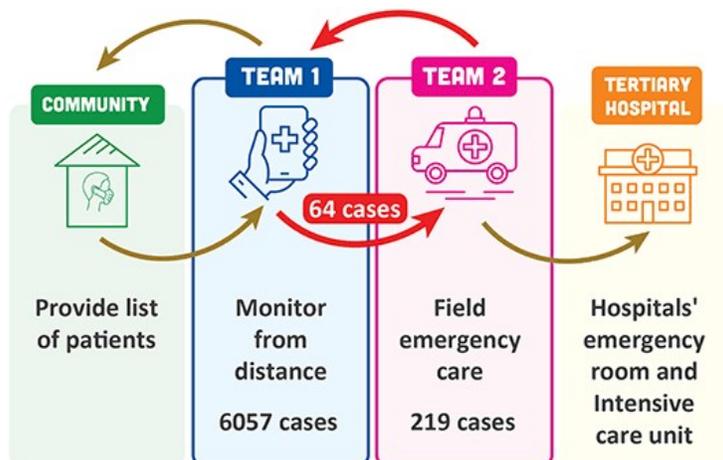


Figure Title: Changing Role of Hospitals

Explanation:

This conceptual framework shows the shift in hospital roles from purely curative care to a multi-dimensional role including preventive, promotive, rehabilitative, educational, and community-oriented services.

Lesson Linkage:

- **Role of hospitals**
- **Hospital objectives and philosophy**
- **Hospital–community relationship**

1.4 Definition

Medical care is a programme of services that should make available to the individual, and thereby to the community, all facilities of medical and allied services necessary to promote and maintain health of mind and body. This programme should take into account the physical, social and family environment, with a view to the prevention of disease, the restoration of health and the alleviation of disability.

—*WHO, 1959*

A Hospital is an integral part of a Social and Medical organisation, the function of which is to provide for the population complete health care, both curative and preventive, and whose outpatient services reach out to the family and its home environment; the hospital is also a centre for the training of health workers and biosocial research.

—*WHO definition of Hospital*

1.5 Philosophy of Hospital

The philosophy of healthcare is the study of the ethics, processes, and people which constitute the maintenance of health for human beings. For the most part, however, the philosophy of healthcare is best approached as an indelible component of human social structures. That is, the societal institution of healthcare can be seen as a necessary phenomenon of human civilization whereby an individual continually seeks to improve, mend, and alter the overall nature and quality of their life. This perennial concern is especially prominent in modern political liberalism, wherein health has been understood as the foundational good necessary for public life.

The philosophy of healthcare is primarily concerned with the following elemental questions:

Who requires and/or deserves healthcare? Is healthcare a fundamental right of all people?

What should be the basis for calculating the cost of treatments, hospital stays, drugs, etc.?

How can healthcare best be administered to the greatest number of people?

What are the necessary parameters for clinical trials and quality assurance?

1.6 Objectives of Hospital

1. To promote awareness of health care among all sections of the Indian people.
2. To promote awareness among functionaries involved in Health and Hospital Management.
3. To promote research in the field of Health and Hospital Management. in order to improve the efficiency of Health Care delivery Systems.
4. To promote the development of high-quality hospital services and community health care.
5. To promote a forum for the exchange of ideas and information among health and hospital planners, academicians, administrators, various statutory bodies and the general public for the improvement of Hospital and Health Care delivery Systems.
6. To develop norms and standards for accreditation of the Health Care Organization and adopt means of evaluation of such institutions, so as to improve the quality of health care in the community.
7. To provide opportunities for training and research in all aspects of Hospital Services Health Care Delivery System and Health Care Administration.
8. To update the knowledge and skill of the Health & Hospital Administrators and other personnel involved in the management of health care organization through continuous education and research.
9. To promote and grant recognition to research in the fields of Health and Hospital Management and to grant awards, scholarship and assistance in other suitable forms to meritorious individuals and institutions.
10. To act as Advisory /Consultative Body, in the best interest of community and country, to Central and State Governments, Public Sector Undertakings, Health Care Delivery Organization, Public Health & Health System Development, Teaching and Training Organization and any other Health related allied organization, when need so arises or services are asked for.
11. To provide Health Care Advocacy for the benefit of health system management and to endeavor to become a national advisory body for union and state governments.

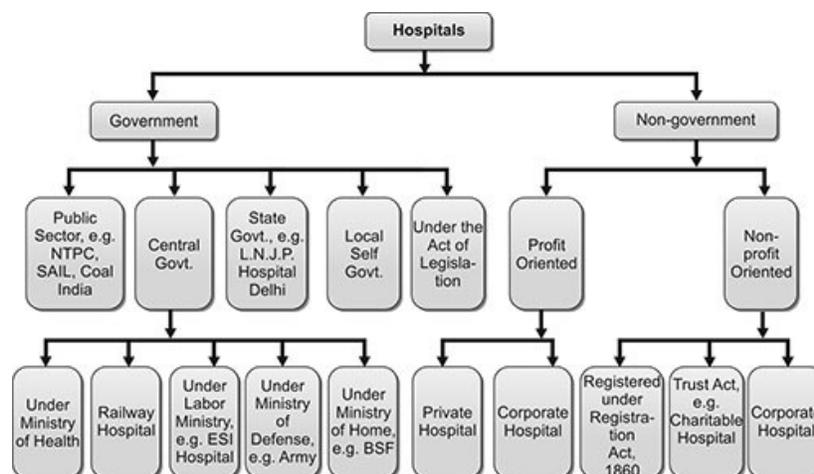
12. To publish text books and periodic monographs on current and futuristic trends in health and hospital management.
13. To help in preparation of SOPs, Manuals, Literature and Books on Health Care Management, Quality & Accreditation, Health Care Technology, Health Care Industry related subjects, Text Books for Health Management Courses for benefit of the Students & Faculty, Hospital and Health Care Organizations and Academic Institutions.
14. To undertake Professional Consultancy in the field of Health System Management, Quality & Accreditation, Health Technology Assessment, Medical Tourism, Disaster Management, Health Care Delivery Organization, Public Health Facilities & Services for overall improvement of the facilities.
15. To conduct inter hospital/ Institution awards competition on various parameters to bring competitiveness for improving healthcare quality & training.
16. To recognize and felicitate the individuals who have made exceptional and significant contributions in the field of Health and Hospital Management in general and to the Academy in particular.

1.7 Classification of Hospitals

Hospital can be classified in any of the following way;

- A. According to type of services provided
- B. According to size or number of beds
- C. According to ownership
- D. According to duration of stay

Figure 3: Classification of Hospitals



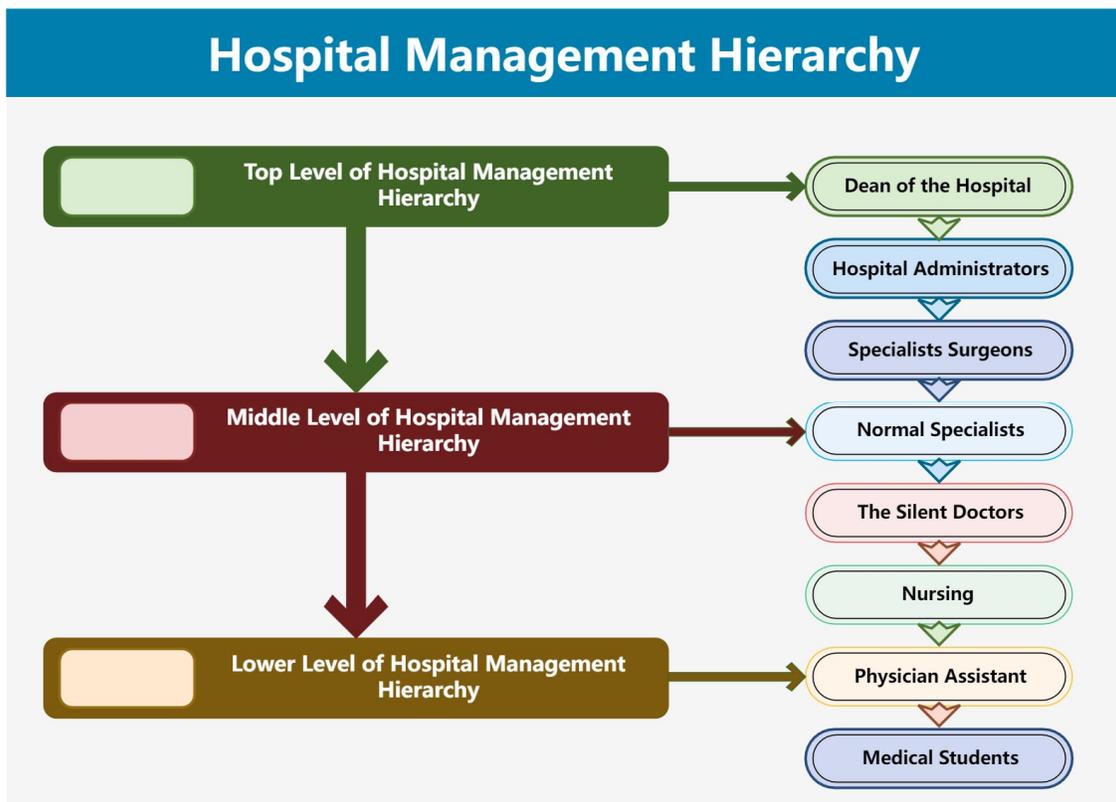
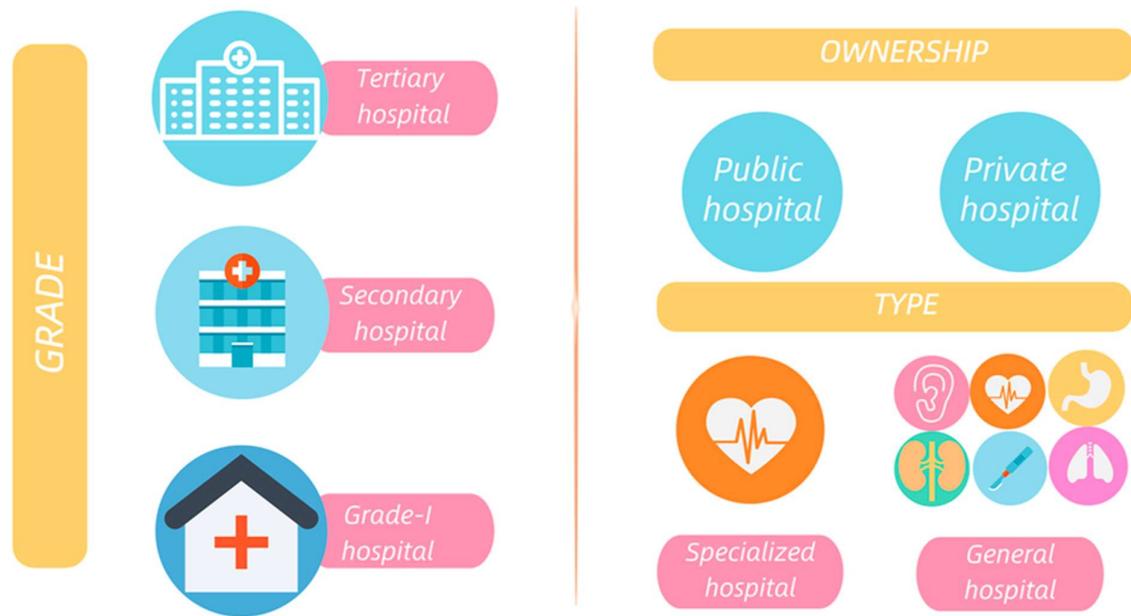


Figure Title: Classification of Hospitals

Explanation:

This hierarchy chart classifies hospitals based on ownership (public/private), size,

length of stay, objectives, and services offered. It provides learners with a clear visual taxonomy for understanding hospital types introduced in Lesson 1.

Lesson Linkage:

- **Classification of hospitals**
- **Types of hospitals**

A. According to type of services provided

General hospital

These are the type of hospitals where different specialist services are provided to both adult and children under the same roof including Medical, Surgery, Pediatrics Gynae & Obs., Cardiology, Dermatology, Orthopedic and Ophthalmology etc.

Special hospitals

These hospitals deal with specific category of diseases e.g. Eye hospital, hospital of cardiac disease, ENT hospital, orthopedic hospital, kidney centre; or specific group of people e.g. children hospital, maternity home; or specific disease e.g. T.B Centre, Leprosy Centre.

B. According to size or number of beds

Regional/Teaching hospital

These hospitals have more than 500 beds. They are attached to medical colleges and have all types of specialties and subspecialties e.g. radiotherapy, neurosurgery. Example of this type of hospital is Jinnah Postgraduate Medical Centre, Karachi & Mayo Hospital Lahore. District Hospitals Provide about fifteen specialties including Medical, Surgery, Gynae & Obs., ENT, Eye, anesthesia and dermatology and have a range of beds from 100-600, example include Civil Hospital, Thatta, Jacobabad, Attock etc. Rural Hospital It has capacity of 20 – 100 beds. It provides medical, surgical & obstetrical care only, e.g. Rural Health Centre Gharoo, Rural Health Centre, Murad Memon Goth, Malir.

C. According to ownership Public Hospital

These hospitals are owned and managed by government and/or autonomous bodies e.g. Civil Hospital, Sargodha, Pakistan Institute of Medical Sciences, National Institute of Child Health etc. Private Hospital Owned by private people or entrepreneur, can be further classified into.

- a) Commercial

b) Non-profit

D. According to duration of stay

Long duration hospital; Stay more than 30 days as in leprosy centre, orthopedic hospital etc. Short duration hospital; Stay less than 30 days as in acute diseases hospital. e.g. Eye hospital. Functions of Hospitals Following are the main functions of a hospital. It should be kept in mind that all functions will not be carried out by every hospital at all times.

a) Preventive & Promotive Care

This is the type of care which should be the main functions of hospitals, for economic gain to the community in terms of health benefit. It includes immunization against preventable diseases, screening programs for detection of common health problems & health education for personal hygiene, nutrition and management of chronic diseases.

b) Domiciliary Service

This is another important service provided by hospitals. It means “Treating the patient at home”. This helps not only in decreasing the work load at hospital services, but conservation of resources which are already scarce. The hospital administrator should create liaison with the private clinic existing in catchment area.

c) Training Hospitals

Training hospitals are the most suitable places for, both, medical & paramedical personnel. Theoretical lectures supplemented by practical demonstration on patient will add to skill of the trainee both at undergraduate and postgraduate level.

c) Research

Research is an integral part of hospital services. It is by this means that most of the advances in the medical sciences have been achieved. A good training regarding research principals followed by the application of the same in the real life situation helps in new discoveries. e) Health Education Health education means providing information to the people to change their behavior in the positive direction. This is the most neglected service, though most important one. This is the most effective way of preventing disease and promoting health in the community when a patient and his attendants seek care, they are very receptive to the information about the

problem. Useful information can be provided through well baby clinic, asthma clinic, diabetes centre and vaccination center, etc.

f) Curative Care

This is the service for which the hospitals are known to the community since very long. It includes both outpatient and inpatient care.

Outpatient:

The focus of attention in hospital has gradually shifted from the inpatient to the outdoor, i.e., the OPD's. The diagnostic procedures which previously required hospitalization have become outpatient facilities and can be performed there. This is also one of the major means of keeping the patients out of the hospital. As outpatients are the first point of contact between the patients and the hospital, it should be well organized, well-staffed and well equipped. Facilities like laboratory, X-ray and pharmacy should be located near, to avoid patient discomfort. Filter Clinics are mandatory for outpatients' departments; now these are clinics where bulk of patients are seen and those requiring special consultation are referred to the consultants' clinics.

Inpatient services:

Previously the role of hospital was confined to inpatient department only. All the inpatient departments should be in one block with free communication with the supplies. The nursing station should be rightly placed and sufficient numbers of nurses should be available for the present number of beds. The general nurse to patient ratio is 1:10. The desirable number of patients per ward is 10-20, with one nursing unit. The ward could be divided into 2 rooms with capacity of 10 beds each, or rooms with single, double or four bed capacity. In all cases, adequate floor space per patient is needed to prevent cross infection. There should be adequate toilet facilities.

g) Accident & Emergency Services

This is an important component of hospital services. Hospitals should be well equipped and staff should be properly trained to meet the emergencies.

h) Disaster Management

This is another component of health services. Though disasters are rare events, every hospital should have a disaster management protocol, for the various types of disasters, and staff should always be prepared through regular mock exercises to deal with such situations. Types of disasters depend on the catchment region of the hospital, for example, a hospital in Baluchistan could prepare an earthquake management protocol, whereas an hospital in the Punjab plains would lay more emphasis on

management of flood affected morbidity, and in NWFP, for a sudden influx of refugees.

i) Geriatric Services

Census in 1998 shows a significant increase in the geriatric population. Currently more than 1.5 million people are found in 75 years + group and more will be added during the next decade. Special arrangements should also be there to deal with problems of old age people.

j) Physiotherapy

This is an important service and sufficient trained man power should be there to deal with patients with chronic diseases such as CVA (cerebrovascular accidents).

k) Ambulance Services

An effective ambulance service is a part and parcel of hospital services to deal with emergency problem and hence provision of timely care.

l) Laboratory Services

An efficient laboratory with all necessary reagent and effective blood transfusion service, is a prerequisite of good functioning hospital.

m) Social Medical Services

This is another neglected service. An effective social medical service will help in preventing the disease, promoting the health in the community and thus preventing the load on hospital services.

n) Medical Record Keeping

It is also a very important component of health services. No effective planning can be done if the record keeping is poor. This is one of the reasons why health conditions of the communities have not improved.

o) Others The support services provided by hospitals include;

1. House Keeping
2. Kitchen
3. Medical Store
4. Laundry
5. Library
6. Security

1.8 Summary

Hospitals which utilize most of the health budget play a very important role in the country's health system. Hospital Administration cannot be done on intuition. A hospital

administrator must be well aware of the scientific methods to run and evaluate the hospital functions and services in an objective fashion. All the doctors should be having a good understanding of hospital organization and management for better care of their patients. Moreover, they should also have enough knowledge for management of human, material and financial resources in a cost-effective way with optimum time approach. Hospitals are among the most complex organizations in modern society. The modern hospital itself is a universe, with a variety of objectives, and a scalar division of labor to achieve those objectives

. Student Learning Activities

Student Learning Activities

Activity 1: Reflective Exercise

- **Task:** Describe how modern hospitals differ from early hospitals.

.....

.....

.....

- **Expected Learning Outcome:** Understanding hospital evolution.

Activity 2: Mini Application Task

- **Task:** Identify the type and classification of a nearby hospital.

-
-
-

- **Expected Learning Outcome:** Application of hospital classification concepts.

Activity 3: Short Analytical Task

- **Task:** Explain the role of hospitals in community health promotion.

-
-
-

- **Expected Learning Outcome:** Appreciation of hospital–community linkage.
-

1.9 Key words

Hospital- The word “hospital” originates from the Latin ‘hospice.’ In fact, the word hospital, hostel and hotel all derive from the common Latin root hospice. The place or establishment where a guest is received was called the hospitium or hospitale.

Medical care- Medical care is a programme of services that should make available to the individual, and thereby to the community, all facilities of medical and allied services necessary to promote and maintain health of mind and body

Research- Research is an integral part of hospital services. It is by this means that most of the advances in the medical sciences have been achieved

1.10 Self-Assessment Questions

1. Define Hospital? Briefly Explain the Hospitals in India?
2. Outline the Changing roles of Hospitals
3. Describe the objectives and Philosophy of Hospitals
4. Analyze the Classification of Hospitals.

B. Case Study for Self-Assessment

Changing Role of District Hospitals in Community Health

Background

District hospitals in India serve as the backbone of secondary healthcare. Traditionally focused on curative inpatient services, their role has expanded to include preventive care, outreach services, training, and disaster response.

Situation Analysis

With the implementation of National Health Mission (NHM), district hospitals were required to strengthen outpatient care, maternal and child health services, immunisation, and community outreach.

Key Issues

- Overcrowding due to increased service demand
- Need for integration with primary healthcare
- Resource constraints
- Community expectations

Application of Lesson Concepts

- Objectives and philosophy of hospitals
- Changing role from curative to comprehensive care
- Classification based on services and size
- Hospital–community relationship

Analytical Questions

1. Why have district hospitals expanded their functions beyond curative care?
2. Identify the changing roles of hospitals evident in this case.
3. How do the objectives of hospitals guide such transformation?
4. Explain how classification of hospitals helps in planning services.

Model Answers (Indicative)

1. To meet preventive, promotive, and community health needs.
2. Shift towards outpatient care, outreach, and preventive services.
3. Hospital objectives emphasise comprehensive and accessible healthcare.
4. Classification aids in role definition and resource allocation.

A. Short-Answer Questions (with Answers)

1. **What is a hospital?**
A hospital is an organised institution providing preventive, curative, and rehabilitative care.
2. **Define hospital philosophy.**
Hospital philosophy reflects ethical and social commitment to healthcare.
3. **Mention two objectives of hospitals.**
Promotion of health and delivery of quality medical care.
4. **What is a general hospital?**
A hospital providing multiple specialties under one roof.
5. **What is extramural service?**
Healthcare services delivered outside hospital premises.

B. Essay-Type Questions (with Guiding Hints)

1. **Explain the evolution of hospitals.**
Hint: Medieval, modern, technological phases.
2. **Discuss the changing role of hospitals.**
Hint: Curative to comprehensive care.
3. **Describe the philosophy and objectives of hospitals.**
Hint: Ethics, community welfare.

4. **Explain the classification of hospitals.**

Hint: Services, size, ownership.

5. **Analyse the role of hospitals in community health.**

Hint: Outreach, prevention, education.

C. Analytical MCQs

1. Hospitals originally functioned mainly as:
 - A. Research centres
 - B. Training institutes
 - C. **Charitable shelters**
 - D. Corporate organisations
2. Which organisation defines a hospital comprehensively?
 - A. IMA
 - B. UNICEF
 - C. **WHO**
 - D. Red Cross
3. A teaching hospital is classified based on:
 - A. Ownership
 - B. Duration of stay
 - C. **Size and function**
 - D. Location
4. Extramural services include:
 - A. IPD
 - B. OPD
 - C. Diagnostics
 - D. **Health camps**
5. The modern hospital emphasises:
 - A. Only curative care
 - B. Isolation from community
 - C. **Comprehensive healthcare**
 - D. Minimal services

1.11 Suggested Readings

1. C. M. Francis & Mario C. de Souza (2025). *Hospital Administration*. Jaypee Brothers Medical Publishers, 3rd Revised Reprint, ISBN 9788171797219
2. B. M. Sakharkar (2024). *Principles of Hospital Administration and Planning*. Jaypee Brothers Medical Publishers, 2nd Edition Reprint, ISBN 9788184486322

3. Joydeep Das Gupta (2023). *Hospital Administration and Management: A Comprehensive Guide*. Jaypee Brothers Medical Publishers, 3rd Edition, 270 pages, ISBN 9789356960800
4. Nikita Sabherwal (2023). *Understanding Hospital Administration Dynamics as per the NMC Competency Based Curriculum*. Ahuja Publishing House, Paperback, ISBN 9789380316918
5. Dinesh Bhatia, Prabhat K. Chaudhari, Bhupinder Chaudhary, Sushman Sharma & Kunaal Dhingra (2023). *A Guide to Hospital Administration and Planning*. Springer Singapore, 1st edition, Hard-cover and eBook, ISBN (hardcover) 978-981-19-6691-0

. References and Suggested Readings

A. Text Books

1. Sakharkar, B.M., *Principles of Hospital Administration and Planning*, Jaypee Brothers Medical Publishers, New Delhi, 2009.
2. Francis, C.M. & De Souza, M.C., *Hospital Administration*, Jaypee Brothers Medical Publishers, New Delhi, 2015.
3. Joshi, D.C. & Joshi, M., *Hospital Administration*, Jaypee Brothers Medical Publishers, New Delhi, 2009.
4. Gupta, M.C. & Mahajan, B.K., *Textbook of Preventive and Social Medicine*, Jaypee Brothers Medical Publishers, New Delhi, 2003.
5. Srinivasan, S., *Management Process in Health Care*, Voluntary Health Association of India, New Delhi, 1982.

B. Other Reference Materials

- World Health Organization, *Hospitals and Health Systems*, WHO Publications.
- Government of India, *National Health Mission Guidelines*, Ministry of Health & Family Welfare.

LESSON-2**HOSPITAL AS A SYSTEM****Learning objectives**

After studying this lesson, the learner will be able to:

1. **Explain** the concept of a hospital as an integrated system.
2. **Describe** the major components and sub-systems of a hospital.
3. **Analyse** the interrelationship between clinical, administrative, and support systems.
4. **Distinguish** between input, process, output, and feedback elements in hospital functioning.
5. **Evaluate** the importance of systems approach in effective hospital management

Structure

- 2.0 Introduction
- 2.1 Peculiarities of Hospital system
- 2.2 Hospital as a social system
- 2.3 Hospital Planning team
- 2.4 Hospital Consultant, Communication and Leadership
- 2.5 Hospital Architect
- 2.6 Factors Influencing Hospital utilization
- 2.7 Functions of Hospital
- 2.8 Summary
- 2.9 Key words
- 2.10 Self-Assessment Questions
- 2.11 Suggested Readings

2.0 Introduction

A hospital can be variously described as a factory, an office building, a hotel, an eating establishment, a medical care agency, a social service institution and a business organisation. In fact, it is all of these in one, and more. Sometimes it is run by business means but not necessarily for business ends. This complex character of the hospital has fascinated social scientists as well as lay people.

Management science defines a system as “a collection of component subsystem which, operating together, perform a set of operations in accomplishment of defined objectives.” A system is viewed as anything formed of parts placed together or adjusted into a cohesive whole. Every system is therefore a part of a large system and has its own subsystem.

A system is construed as having inputs which undergo certain processing and get transformed into output, the output itself in turn sending feedback to the input and the process, which can be altered to achieve still better output.

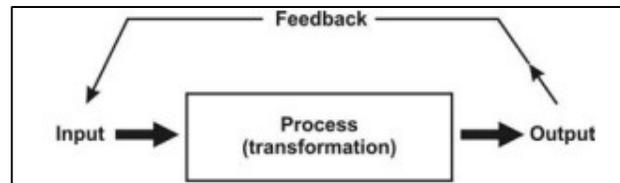


Fig 2.1 Conceptual Framework of system

Transformation of matter, energy or information produce the output by two processes, viz. decision process, i.e. the process of deciding what to do, how best to do it, when to do it and so on, and action process, i.e. the process of putting the above decisions in action.

Introductory Case Study:

Hospital as an Integrated System at a Government Medical College Hospital

Background of the Organisation / Sector

Government medical college hospitals in India function as complex organisations providing outpatient care, inpatient care, diagnostics, emergency services, teaching, and research. These hospitals involve coordination among multiple departments and professional groups.

Contextual Trigger / Problem

A government medical college hospital faced frequent service delays, overcrowding, and patient dissatisfaction. Though individual departments functioned efficiently, lack of coordination resulted in bottlenecks.

Stakeholders Involved

- Hospital administrator
- Medical and nursing staff
- Diagnostic and pharmacy departments
- Patients and attendants

Managerial / Behavioural Issues

- Fragmented functioning of departments
- Poor coordination between clinical and support services
- Absence of systems thinking
- Delayed service delivery

Relevance and Importance to the Lesson

The situation highlighted the need to view the hospital as a **system of interrelated components** rather than isolated departments.

Explicit Linkage to Lesson Concepts

- Hospital as a system
 - Interdependence of sub-systems
 - Systems approach in hospital administration
-

2.1 Peculiarities of a Hospital System

In spite of the simple definition of a system, a hospital system is more than the sum of its parts. The peculiarities of a hospital system are as follows.

1. A hospital is a open system which interacts with its environment.
2. Although a system generally has boundary, the boundaries separating the hospital system from other social systems are not clear but rather fuzzy.
3. A system must produce enough outputs through use of inputs. But the output of a hospital system is not clearly measurable
4. A hospital system has to be in a dynamic equilibrium with the wider social system.
5. A hospital system is not an end in itself. It must function, as a part of the larger health care system.
6. A hospital system like other open social systems tends towards elaboration and differentiation, i.e. as it grows, the hospital system tends to become more specialised in its elements and elaborate in structure, manifesting in the creation of more and more specialised departments, acquisition of new technology, expansion of the “product lines” and scope of services.

In considering the hospital as a system for the delivery of personal services, which is the most important of its functions, Anand (1984) views the system from four different perspectives which are as follows

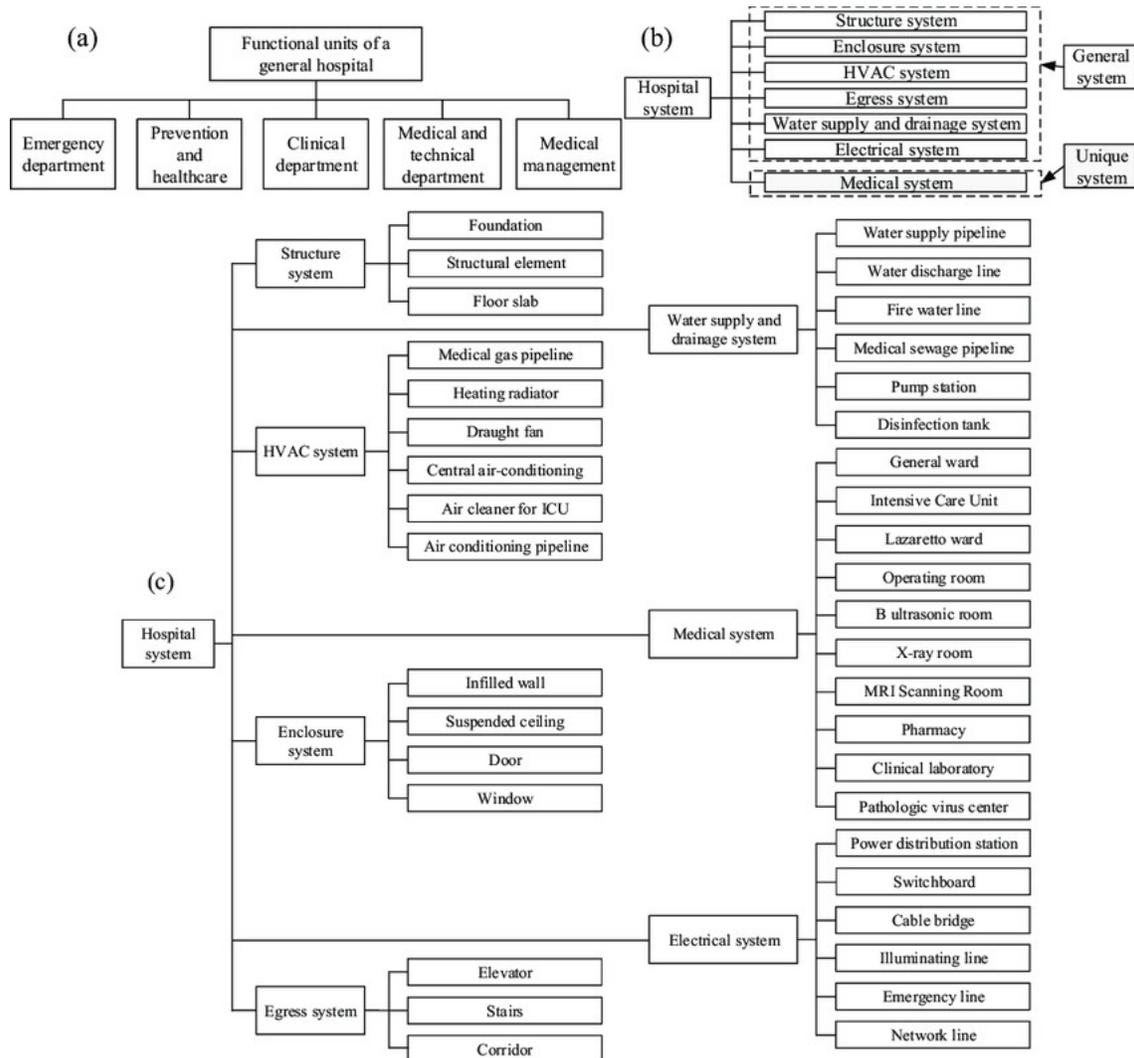
1. Client-oriented perspective which is that of access to service, use of service, quality of care, maintenance of client autonomy and dignity, responsiveness to client needs, wishes and freedom of choice.

2. Provider-oriented perspective that of the physician, nurses and other professionals working for the hospital, and include freedom of professional judgement and activities, maintenance of proficiency and quality of care, adequate compensation, control over traditions and terms of practice and maintenance of professional norms.

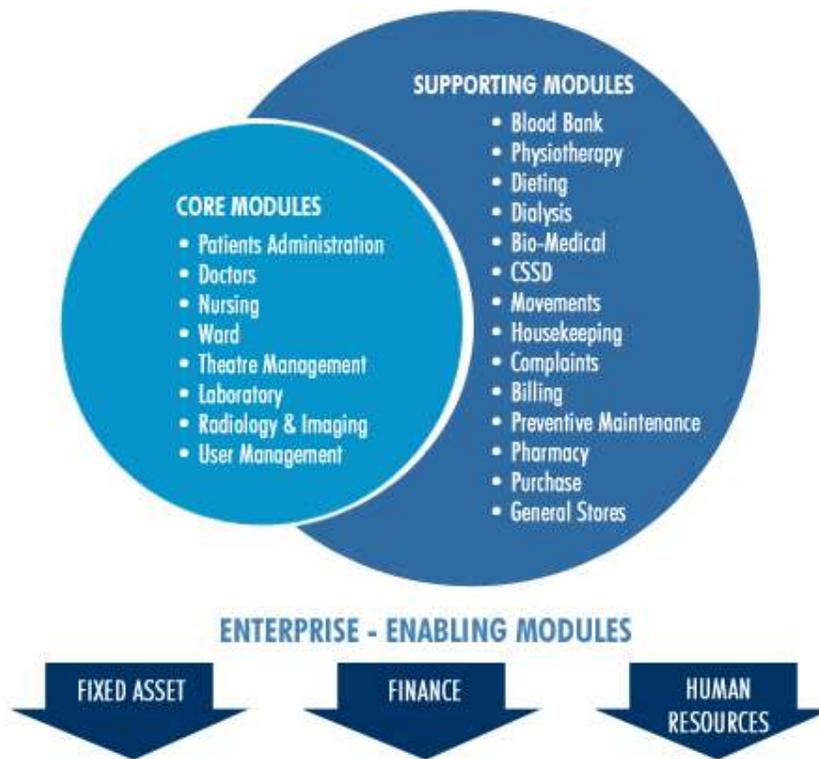
3. Organisation-oriented perspective which covers cost control, control of quality, efficiency, ability to attract clients, ability to attract employee and staff, and mobilisation of community support.

4. Collective orientation perspective which includes proper allocation of resources among competing needs, political representation, representation of interests affected by the organisation, and coordination with other agencies

Figure 2: Major Sub-Systems of a Hospital



QUINTEGRA'S HOSPITAL MANAGEMENT SYSTEM



Explanation:

Illustrates the major hospital sub-systems such as **clinical services, nursing services, administrative services, diagnostic services, and support services**, highlighting their interdependence.

Lesson Linkage:

- Components of hospital system
- Inter-relationship of departments

2.2 Hospital as a Social System

Sociologists have considered hospital as a social system based on bureaucracy, hierarchy and superordination subordination. A hospital manifests characteristics of a bureaucratic organisation with dual lines of authority, viz. Administrative and Professional. In teaching hospitals and in some others, many professionals at the lower and middle level (interns, junior resident, senior residents, registrar) are transitory, while as in others, all medical

professionals are permanent with tenured positions and non-transferable jobs. In order to continue in a orderly fashion, every social system has to fulfil the functional needs of that system, viz. the need for pattern maintenance, the need for adaptation, for goal attainment and integration.

In a hospital system, the patients' needs determine the interactions within the system. When a patient is cured and discharged, in his or her place a new patient is admitted. This new patient also demands all the attention and skills of doctors, nurses and others, thus, forcing the essential and separative components into immediate action, repeatedly as each patient is admitted. Free upward and lateral communication is an important characteristic of any system. So far as communication within the hospital system is concerned, in fact there is considerable restriction in communication among people in the hospital. Doctors communicate freely with doctors, nurses with nurses and patients with each other (if not too ill) and with their relatives, but there is little communication between these groups at the nonformal level.

In the course of interaction among the various units of a hospital social system, tensions and conflicts emerge. These strains have to be dealt with effectively if the system is to function properly. The system has to develop mechanisms of tension management to cope with such strains.

Integration deals with the problem of morale and solidarity in the hospital social system. Morale is necessary both for integration as well as pattern maintenance. Integration has to be achieved at the microlevel. It involves the development of loyalty to the system, to its other members and the values for which the system stands.

Need for pattern maintenance acts as a barrier to upward or lateral mobility of the staff. One occupational group cannot be promoted to the other group, e.g. laboratory technician cannot become nurse and nurses cannot become doctors.

In general, there is a trend in bureaucratisation of hospitals, in which hospitals are seen to work towards achieving their goals through reliance upon such structural devices as systems of division of labour, an elaborate hierarchy of authority, formal channels of communication, and sets of policies, rules and regulations.

The two lines of authority (viz. administrative and professional) come into conflict, because each group has a different set of values. One is concerned with the maintenance of organisation and the other with providing medical expertise. This leads to interpersonal stress.

A system that operates through multiple subordination subjects the subordinates to multiple orders which are often inconsistent with one another.

A hospital is more than the sum of its parts. The major components of a hospital system are depicted

<i>Input</i>	<i>Process – Transformation</i>	<i>Output</i>
People A. Staff <ul style="list-style-type: none"> • Physician • Nurses • Paramedical • Supportive B. Patients, their attendents and relatives Material <ul style="list-style-type: none"> • Drugs and chemicals • Equipment • Diet Money <ul style="list-style-type: none"> • To maintain staff, facilities and procure materials 	Communication: Between <ul style="list-style-type: none"> • Physicians and patients • Physicians and nurses • Physicians/nurses and paramedical staff • Physicians and administrator • Administrator and community • Administrator and nursing/paramedical staff • Nursing/paramedical staff and patients Decision Making For <ul style="list-style-type: none"> • Cure: Diagnosis, treatment • Care: Creature comforts of patients, diet • Procurement of materials in right place at the right time Action <ul style="list-style-type: none"> • Putting decisions into practice • Balanced mix of communication, decision-making and action 	E F F I C I E N T P A T I E N T C A R E

Fig 2.2 Hospital as a system

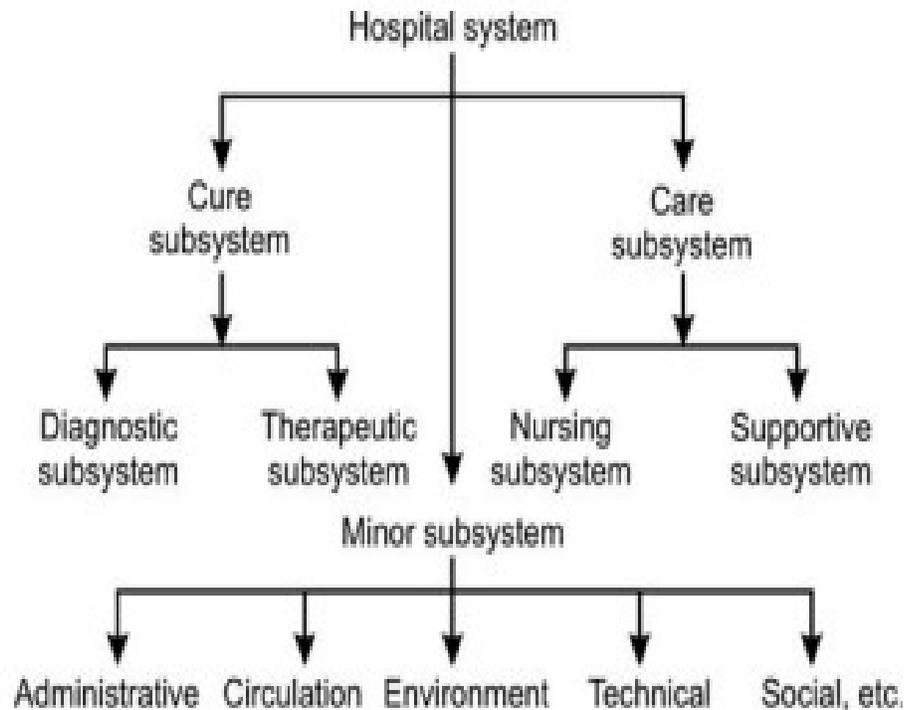


Figure 2.3 Components of the system

2.3 Hospital Planning Team

One must realise in the very beginning that hospital project planning and execution is likely to be a difficult and frustrating task.

All the people involved in the delivery as well as utilisation of services are concerned with hospital planning. The people, patients, nursing, medical staff and the management all have their own peculiar requirements.

Technical requirements of a particular professional group in isolation have led to creation of physical forms limited in their utility. On the other hand, the interest of administrators is attracted by other than technical requirements of patients, community and owners. A critical understanding of these relationships is necessary to blend the differences of professional prestige, functional requirements and administrative considerations.

Suitably qualified and competent planning staff are scarce to find. And they will need a long time to do the necessary work in a careful manner at each stage. It is a common practice, once the idea of a hospital has taken root, to go ahead too hastily in the preparation of building plans without much deliberation. The result is that when plans come under the scrutiny of the

personnel who are going to work in the hospital, they are found to be all wrong. Therefore, the key feature in planning of all good medical facilities should be the extensive participation of the medical staff in the process. In the initial stages time spent on spelling out clearly what the requirements would be from the staff's standpoint will save both money and time in the long run. Approximately 10 to 12 per cent of the proposed outlay on construction can be saved if changes at the construction stage or within the short span of commissioning the hospital can be avoided.

The basic reason for the hospital's existence—the patient and his human needs—seem to have been subordinated many a times in design consideration. Hospitals which have been designed only to meet the health professional's needs have failed to develop an environment which meets patient's needs. The planning team's views must relate to this regard for the needs of patients, staff and visitors alike and not to the architect's and the consultant's skill in selling their own plans.

The difference between an overall function and the activity components of that function is often confused. To that extent, there is a need to educate the planning group, especially the nonmedical members of the group, in the description of spaces and activities. The design of a hospital must also meet patients' needs as a human being—his/her social habits, privacy, need for sociability, food habits and so on.

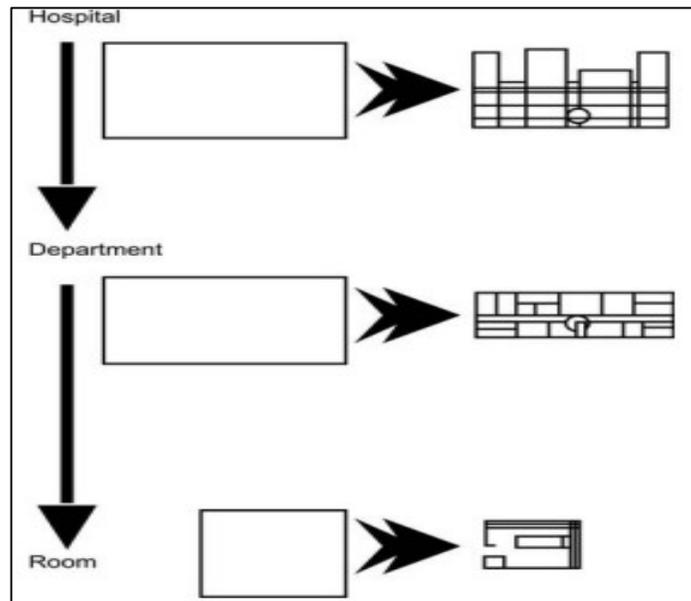


Figure 2.4 Functional Programming system of the hospital

Because the hospital building language is not understood by doctors, nurses and medical administrators, we have only been lapping up the ideas the architects and engineers thrust on hospitals. Even though the multidisciplinary nature of a hospital project involves participation by professional doctors, specialists, nurses, technical staff, architects, engineers and medical administrators, the lack of a common technical language needed for understanding of the common objective of this group tends to delay progress, because the language and semantics used by various participants of the group can confuse and create ambiguity. Therefore, medical men must first understand the language of hospital project planning before interacting with architects and engineers.

Hospital Consultant Of utmost importance in planning a new hospital or addition of new facilities in an existing hospital, is the utilisation of a competent hospital administrator-consultant. In Europe and USA, a class of professionals called the “hospital consultant” has emerged separate from the professional hospital administrator. It is a matter of debate whether such strict compartmentalisation is useful, or even necessary. A professional trained as a hospital administrator with adequate experience can profitably combine the job of hospital consultant and administrator. Such a professional is referred to here as a “hospital consultant”. An experienced hospital consultant would have had opportunities to study the operation of many hospitals and similar institutions, to work in different kinds of situations and to compare ideas and developments with others in the medical care field. He can approach a problem objectively and bring proper perspective both to problem solving and planning for the future. Only the specialised knowledge of alternative methods of doing things, and systematic approach can give the hospital project a fair chance of success on a functional basic consistent with economy. The medical hospital consultant is able to provide experienced guidance in areas which cover,

- (i) local and regional surveys of medical and health care,
- (ii) analysis of the demand and need for hospital facilities,
- (iii) assessment of the extent and range of services required,
- (iv) equipment selection, and
- (v) administrative and organisational relationships.

The first step in planning a hospital project is to assemble a planning team. The nucleus of the team can consist of a hospital consultant, one or two medical and lay administrators, a nursing administrator, and hospital architect. Nurse administrators feel that nurses tend to be

brought in to react to plans drawn up by others, rather than to participate in their preparation. When she is associated from the beginning, the nurse in the planning team is better prepared to guide and support line nursing managers in determining departmental systems.

It has been suggested by some that a social scientist and even a health educationist should form part of the planning team. Whereas their usefulness at the level of national health care planning cannot be denied, their association with the planning team at the hospital level is unlikely to add to the effectiveness of the team.

The Core Group The hospital consultant and one or two medical administrative personnel would work without other medical members in the early stages of the project. However, this core team will need to be enlarged gradually as the project develops by addition of a hospital engineer, a financial expert, and experts in the respective speciality fields when clinical services are taken up for consideration.

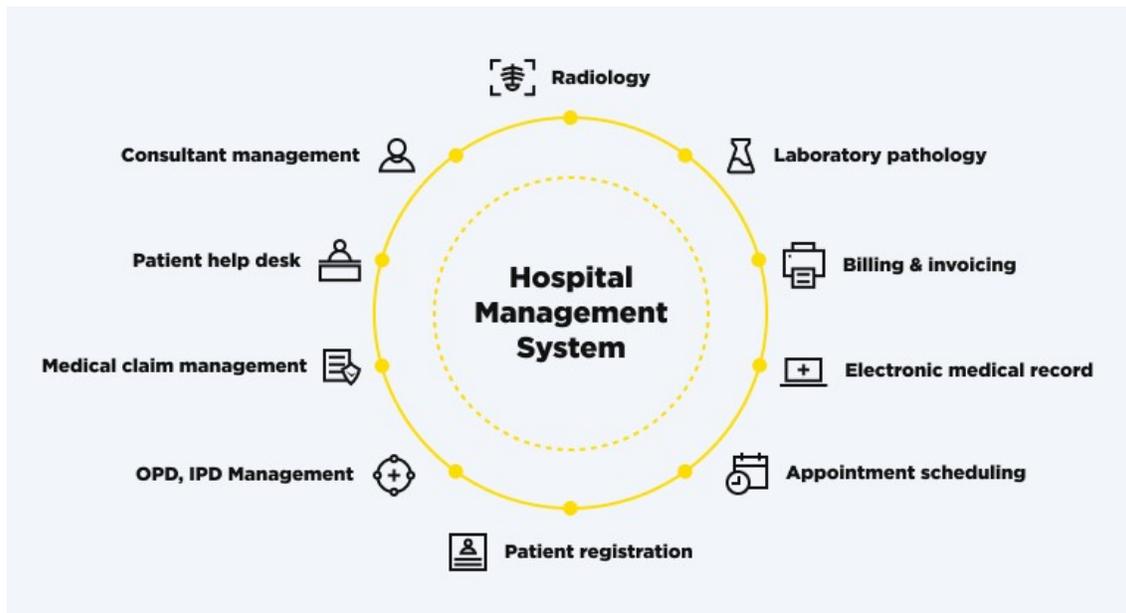
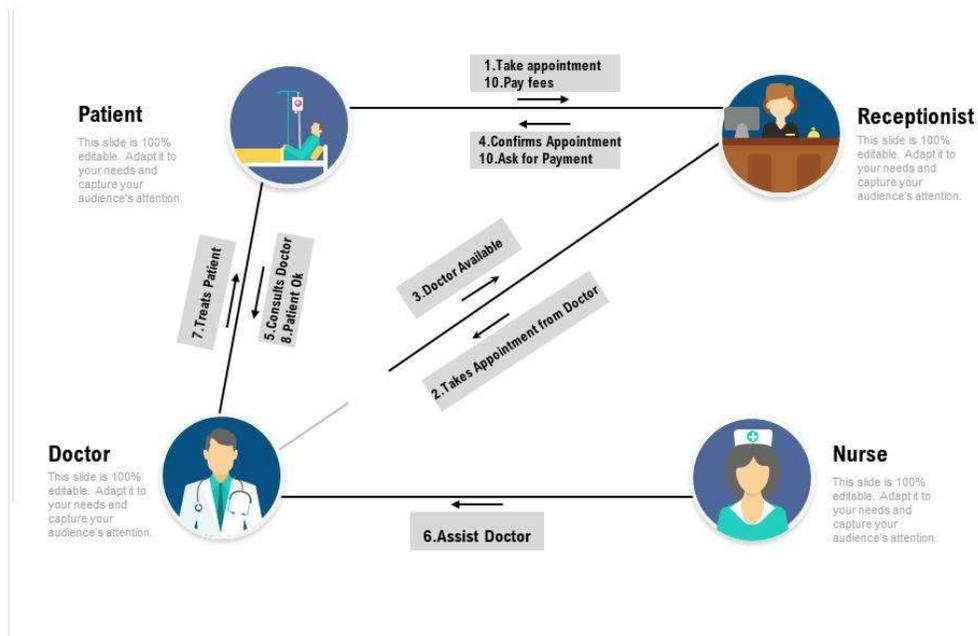
As planning requires understanding of the nature of activities and their impact on each other. It is desirable to funnel information through as small a group as possible, with one person assuming primary responsibility and providing the necessary leadership to keep the process in motion.

2.4 Hospital Consultant, Communication and Leadership

Funding bodies, government and community agencies, professional and social groups, suppliers and consumers who are all involved in some stage of the planning process fail to communicate effectively. The role of the consultant therefore, is to maintain progress in decision making by coordinating their work. They must fully understand the proposals and their implications on financial, manpower and other resources.

Many decisions have to be made before the architect appears on the scene. If the planning body has not been able to make such decisions, then it devolves upon the architect to prod the decision-making process, to ask the controversial questions, and at times to cajole or bully in leading the way to decision making. Here, it must be understood that architects start by asking questions on the total budget expenditure for the project, for obvious reasons. The initiative must remain with the planning body.

Communication Diagram for Hospital Management



Explanation:

Shows how clinical care depends on administrative planning and support services, reinforcing the concept that failure in one sub-system affects overall hospital performance.

Lesson Linkage:

- Systems approach
- Coordination in hospital management

2.5 Hospital Architect

The architect has to acquire an understanding of the comprehensive technical and administrative needs of the hospital. His responsibility is to translate clinical and administrative requirements into architectural and engineering realities which encompass site selection, orientation of buildings, supervision of construction, utilities and electrical and mechanical installations. The requirements have to be understood in depth by the architect from the hospital consultant, from which should develop a programme in writing stating clearly all the requirements in comprehensive terms, viz. number of beds, their distribution, departmental needs, area requirements, major equipment, number and type of personnel to be employed, departmental functions and relationships. An architect can be of value only if he has experience of hospital architecture and construction. There are specialist architects employed at the central and state government levels in the ministry/department of health for work in the government sector. During recent past, architects with hospital experience have also become available in the open market.

Therefore, it will be best to engage the services of architects who are specialists in hospital construction or with experience in hospital projects. As the project goes on, architects and engineers without previous experience in hospital building can be employed in an executive capacity without detriment to the project. Architectural creativity lies in synthesising all elements into appropriate solution patterns. For a hospital architect, to create a hospital which satisfies the functional requirements of the profession (medical, nursing, administration), meets the cost limits set by the owners and yet retains some quality of architecture, is a task requiring imaginative approach, a high degree of professional skill and ingenuity.

In general, a hospital project undergoes the following phases.

1.

Inception

2. Feasibility studies

3. Outline proposal

4. Scheme design

5. Detail design

6. Tender action

7. Construction

8. Commissioning

9. Shake-down.

Stage A	
Functional content	: Project team
Outline brief	: Assessment of functional content
	: Submission to owners (Govt, private organisation, etc.) for approval
	: Site appraisals, gross floor areas
	: Building space. Draft master plan
	: Estimation of cost and phasing
	: Appraisal of work by owners
Stage B	
Operational policies	: Operational policies
Development plan	: Departmental and inter-related activities
	: Departmental and hospital policies
	: Development control plan
	: Budget cost
	: Continuous informal discussion with owners through—stage B
Stage C	
Schedules of accommodation, sketches, final cost estimate	: Schedules of accommodation
	: Sketch drawing
	: Equipment schedules component estimates
	: Cost revenue and staffing estimates
	: Final cost approval
Stage D	
Detail design working drawings, tender action	: Working drawings
	: Engineering detail
	: Bills of quantities
	: Calling tenders
Stage E	
Contract and construction	: Assessments of tenders
	: Award of contract
	: Construction
	: Engineering commissioning
Stage F	
Commissioning	: Staff assembly and training
	: Equipment and supplies assembly
	: Testing of installations
	: Opening

Fig 2.5 Hospital Project staging

2.6 Factors Influencing Hospital Utilisation

Before proceeding further, it will be worthwhile to reflect upon the significance of the points considered so far. Social, economic, educational and cultural characteristics of the people and the attitudes of the medical profession influence both the manner in which existing hospital facilities are utilised and the extent of utilisation. However, where hospital facilities fall woefully short of the bare minimum requirement, utilisation statistics do not depict the correct picture. There is no such thing as a standard population to be served by a hospital although a district general hospital usually serves 150,000 to 350,000 people. The exact size of a hospital's catchment area and of the population served depends on a variety of factors. The following factors affect the manner and extent of hospital bed utilisation, a knowledge of which will be of help during the planning process.

1. **Hospital bed availability:** As opposed to developed countries where utilisation is high because of large availability of hospital beds, in developing countries it is because of low bed: population ratio. A high available bed complement may lead to low bed occupancy rate.
2. **Population coverage and bed distribution:** Since full coverage of population depends upon equitable regional distribution rather than on total number of beds, an even distribution increases hospital utilisation by wider coverage of population. People from scarcely populated areas generally find it necessary to travel to district hospitals or metropolitan towns for more sophisticated type of medical care.
3. **Age profile of population:** A population with a high life expectancy (and consequently a higher proportion of aged persons) tends to raise the volume of hospitalisation. The effect of age on utilisation indices is reflected in an increase in the per person hospitalisation rate and in average length of stay.
4. **Availability of medical services other than hospitals:** Availability of well-organised dispensaries, outpatient clinics, mobile clinics and competent general practitioners reduce the load on hospital beds in an area.
5. **Customs and attitudes of medical profession:** Doctors order admissions primarily for medical reasons. On the other hand, people themselves influence the decision for admissions if a strong "hospital habit" is developed in them, or against admission because of fear of the hospital and unwillingness for separation from family. Physicians' attitude on these matters and their philosophy on early ambulation and home care influence hospital bed utilisation.

6. **Method of payment for hospital services:** Hospital services can be free, on payment by patient directly to the hospital, or by indirect payment through sickness insurance. Hospital utilisation is greatly influenced in the last case.
7. **Availability of qualified medical manpower:** In areas with very small number of qualified doctors, much illness remains undetected, and therefore admission rates are low. However, the customs and attitudes of medical profession and pattern of services available influence hospital utilisation more than the number of doctors.
8. **Housing:** Break up of the joint family system and a trend for nuclear families living in independent apartments result in increasing hospital admission because of inconveniences encountered in caring for the sick person at home. Shortage of home help in nuclear families and shortage of space in modern apartment dwellings are jointly responsible for demand for hospital admissions in urban areas.
9. **Morbidity pattern:** Acute communicable diseases result in a demand for short stay hospitals, while as chronic infective and degenerative diseases create demand for long-stay institutions. The former raises the admission rate and bed turnover, the latter needs longer average length of stay.
10. **Hospital bottlenecks:** The efficiency with which supportive services (radiography and laboratory, etc.) support and reinforce the total hospital organisation has direct influence on hospital utilisation. Poor supportive services and cumbersome admission and discharge procedures act as “bottlenecks” and result in longer hospital stay.
11. **Internal organisation:** A high degree of specialisation where specialist departments function as watertight compartments result in segmentation within a hospital, resulting in lesser degree of utilisation due to tight compartmentalisation of beds. This points out the need to provide the greatest flexibility in bed planning.
12. **Public attitudes:** There are certain factors which are of considerable importance in determining where people will go to receive medical care, these are public attitudes. The category includes social and religious attitudes, local customs and traditions, beliefs and mores, and group preferences.

2.7 Functions of hospital

There are two types of function that are performed by the hospital-

2.7.1 Intramural

2.7.2 Extramural

2.7.1 Intramural

Intramural is a kind of function that performed by the hospital in its territory or premises. Intramural function includes various kinds of services like OPD, Diagnostic, IPD, Emergency services and education and training for nursing and paramedics. A brief account about this function are as follows

OPD

OPD stands for Out Patient Department,

It defines as the ambulatory service or medical care provides to the patients who are not needy for admitted to the hospital. This department works on the basis of day care. Some writers says that OPD is the "shop window" of the hospital.

IPD

IPD stands for In Patient Department, IPD is the heart of the hospital. The foremost objective of the hospitals is to care for the sick and injured person, this task is carried out in the wards of the hospital.

Diagnostics

Diagnosis is a medical procedure that helps in finding or diagnose the disease or cause of disease of patient. Diagnostic techniques are of two types as follows

1. Invasive
2. Non- Invasive Emergency services

Emergency department is the vital department of the hospital. This deals with the emergency like accident, minor trauma, and other emergency cases associated with health. Teaching and Education Teaching and education refers to the training of nursing and paramedical staff.

2.7.2 Extramural

Extramural is a kind of function that performs by hospital in outside or surrounding areas. It includes home care services, health camps, health promotion, day care centers etc.

A brief account about this function are as follows

Home care service-This type of health service provide by the hospital at the patients door step, Some patients wants medical help or service at there home, and hospital provides nursing care to the patient.

Health camps

Health camps are held by the hospital in rural areas, schools, colleges, etc

Health promotion-This type of service held by the hospital at village level and in rural areas. Health promotion is done by street plays, nukkar natak, individual and public counselling etc.

Day Care centres

This center includes minor medical procedures and minor operations which held on day basis. This includes eye care camps, dental camps etc

2.8 Summary

The primary duty of hospital administration is to manage the hospital effectively and efficiently by utilization of resources placed under its command to achieve the hospital's objective. To study the hospital organisational structure, the realization will immediately dawn upon you that the hospital is an extremely complex organisation. This complexity arises from the facts that there are a large number of professional groups functioning in a hospital with diversity of objectives

2.9. Key words

Hospital system- Hospital system, the patients' needs determine the interactions within the system. When a patient is cured and discharged, in his or her place a new patient is admitted

Intramural- Intramural is a kind of function that performed by the hospital in its territory or premises.

Extramural- Extramural is a kind of function that performs by hospital in outside or surrounding areas.

Diagnosis is a medical procedure that helps in finding or diagnose the disease or cause of disease of patient

Hospital Architect- The architect has to acquire an understanding of the comprehensive technical and administrative needs of the hospital

2.10 Self-Assessment Questions

1. Discuss the Peculiarities of Hospital system
2. Explain the Hospital planning team and Hospital architect?
3. Describe the Factors influencing the Hospital Utilization
4. Elucidate the Functions of Hospital?

Case Study for Self-Assessment

Systems Failure and Service Disruption in a District Hospital

Background

A district hospital experienced repeated delays in surgical services. Though surgeons and operation theatres were available, surgeries were postponed.

Situation Analysis

Investigation revealed failures in coordination among admission, diagnostics, sterilisation, and pharmacy services.

Systems Perspective

The problem was not clinical competence but **breakdown in system linkages**.

Integration of Lesson Concepts

- Input–process–output model
- Clinical and support sub-systems
- Feedback mechanism

Analytical Questions

1. Identify the hospital sub-systems involved.
2. Explain how lack of system integration caused service failure.
3. Apply the input–process–output model to this case.
4. Suggest system-based managerial interventions.

Model Answers (Indicative)

1. Clinical, diagnostic, pharmacy, and support services.
2. Lack of coordination disrupted service flow.
3. Inputs were available, processes failed, outputs delayed.
4. System coordination and feedback mechanisms.

A. Short-Answer Questions (with Answers)

1. **What is meant by hospital as a system?**
A hospital is an organised set of interrelated components working towards health outcomes.
2. **Name any two hospital sub-systems.**
Clinical services and administrative services.
3. **What is an open system?**
A system that interacts with its external environment.
4. **Define input in hospital system.**
Resources such as patients, manpower, and materials.
5. **What is feedback in hospital system?**
Information used to improve system performance.

B. Essay-Type Questions (with Guiding Hints)

1. **Explain the hospital as a system.**
Hint: Inputs, processes, outputs.
2. **Describe major sub-systems of a hospital.**
Hint: Clinical, administrative, support.
3. **Discuss the interrelationship among hospital sub-systems.**
Hint: Coordination and dependency.
4. **Explain the concept of hospital as an open system.**
Hint: Environment interaction.
5. **Analyse the importance of systems approach in hospital management.**
Hint: Efficiency, quality, coordination.

C. Analytical MCQs

1. A hospital is considered an open system because it:
A. Is isolated
B. Has fixed structure
C. **Interacts with its environment**
D. Works independently
2. Which is NOT an input of hospital system?
A. Patients
B. Manpower
C. Equipment
D. **Recovered patient**

3. Diagnostic services belong to:
 - A. Administrative system
 - B. **Clinical support system**
 - C. External system
 - D. Regulatory system
4. Breakdown in one sub-system leads to:
 - A. No effect
 - B. **Overall system inefficiency**
 - C. Better outcomes
 - D. Faster services
5. Systems approach emphasises:
 - A. Departmental isolation
 - B. Individual performance
 - C. **Coordination and integration**
 - D. Competition

2.11 Suggested Readings

1. C. M. Francis & Mario C. de Souza (2025). *Hospital Administration*. Jaypee Brothers Medical Publishers, 3rd Revised Reprint, ISBN 9788171797219
2. B. M. Sakharkar (2024). *Principles of Hospital Administration and Planning*. Jaypee Brothers Medical Publishers, 2nd Edition Reprint, ISBN 9788184486322
3. Joydeep Das Gupta (2023). *Hospital Administration and Management: A Comprehensive Guide*. Jaypee Brothers Medical Publishers, 3rd Edition, 270 pages, ISBN 9789356960800
4. Nikita Sabherwal (2023). *Understanding Hospital Administration Dynamics as per the NMC Competency Based Curriculum*. Ahuja Publishing House, Paperback, ISBN 9789380316918
5. Dinesh Bhatia, Prabhat K. Chaudhari, Bhupinder Chaudhary, Sushman Sharma & Kunaal Dhingra (2023). *A Guide to Hospital Administration and Planning*. Springer Singapore, 1st edition, Hard-cover and eBook, ISBN (hardcover) 978-981-19-6691-0

A. Text Books

1. Sakharkar, B.M., *Principles of Hospital Administration and Planning*, Jaypee Brothers Medical Publishers, New Delhi, 2009.
2. Francis, C.M. & De Souza, M.C., *Hospital Administration*, Jaypee Brothers Medical Publishers, New Delhi, 2015.
3. Joshi, D.C. & Joshi, M., *Hospital Administration*, Jaypee Brothers Medical Publishers, New Delhi, 2009.

4. Srinivasan, S., *Management Process in Health Care*, Voluntary Health Association of India, New Delhi, 1982.
5. Gupta, M.C. & Mahajan, B.K., *Textbook of Preventive and Social Medicine*, Jaypee Brothers Medical Publishers, New Delhi, 2003.

B. Other Reference Materials

- World Health Organization, *Hospitals and Health Systems*, WHO Publications.
- Government of India, *Indian Public Health Standards (IPHS)*, Ministry of Health & Family Welfare.

LESSON -3**MANAGERIAL ACTIVITIES IN A HOSPITAL****Objectives of the Lesson**

After studying this lesson, the learner will be able to:

1. **Explain** the concept of management in a hospital setting.
2. **Describe** the major managerial functions performed in hospitals.
3. **Analyse** the role of planning, organising, staffing, directing, and controlling in hospital administration.
4. **Distinguish** between clinical and managerial responsibilities in hospitals.
5. **Evaluate** the importance of effective managerial activities for hospital performance

Structure

- 3.0 Introduction
- 3.1 Managerial Activities of a Hospital
 - 3.1.1 Planning
 - 3.1.2 Organising
 - 3.1.3 Directing
 - 3.1.4 Controlling
- 3.2 Realities of Hospital Organisation
- 3.3 Hospital and its Community
- 3.4 Summary
- 3.5 Key words
- 3.6 Self-Assessment Questions
- 3.7 Suggested Readings

3.0 Introduction

Management has been defined in many ways by many authorities, but the original definition by Henry Fayol, considered the father of modern management, over eighty years ago still holds good, “To manage is to forecast and plan, to organise, to command, to coordinate and to control”.

The task of the management of any enterprise incorporates:

- i. determining the goal and objectives of the enterprise,
- ii. acquisition and utilisation of resources
- iii. instituting communication systems,
- iv. determining control procedures, and
- v. evaluating the performance of the enterprise.

Management has been defined in many ways by many authorities, but the original definition by Henri Fayol, considered the father of modern management, over eighty years ago still holds good, “To manage is to forecast and plan, to organise, to command, to coordinate and to control”.

The task of the management of any enterprise incorporates:

- i. determining the goal and objectives of the enterprise,
- ii. acquisition and utilisation of resources
- iii. instituting communication systems,
- iv. determining control procedures, and
- v. evaluating the performance of the enterprise. came to be widely known only in the forties.

Noting that the principles of management are flexible, not absolute, and must be applicable regardless of changing and special conditions, the following principles are still useful for an understanding of management in general.

1.Division of Work

The work assigned to each worker should be clearly defined, and activities of the organisation precisely clarified. All work thus gets performed efficiently with gradual development of competence and skills. This is the specialisation which economists consider necessary in the use of human resource.

2. Authority and Responsibility

Authority and responsibility are inseparable, with the latter arising from the former. Without authority one cannot discharge responsibility. However, authority should be commensurate with responsibility.

3. Discipline

Considering discipline as respect for agreements which are directed at achieving obedience, discipline requires good supervisors at all levels. Managers and administrators should set the good example through their actions and behaviour.

4. Unity of Command

This means that employees should receive orders from one superior only. Each employee in the organisation must know who is his immediate boss and be responsible to him for his work. It should be widely known only in the organisation. Noting that the principles of management are flexible, not absolute, and must be applicable regardless of changing and special conditions, the following principles are still useful for an understanding of management in general.

5. Unity of Direction

Each group of activities with the same objective must have one head and one plan. As opposed to unity of command, unity of direction relates to the organisation as a whole. There should be teamwork and unity in the organisation. If people at various levels are divided about objectives, there will be wastage of organisational resources.

6. Centralisation of Authority

This refers to the extent to which authority is concentrated or dispersed. It should be clear in the organisation as to who is to issue orders and the areas of authority. Otherwise, conflicting orders will create confusion in the organisation.

7. Scalar Chain

The chain of supervisors from the highest to the lowest ranks in the organisation. While this will not be departed from needlessly, it could be short-circuited at times only when to follow it scrupulously would be detrimental in a given situation.

8. Order

This is “a place for everything (every one) and everything (every one) in its (his) place”. As a principle of organisation in the arrangement of things and people, this will result in optimisation of the resources.

9. Remuneration Equal pay for equal work

Each person should be paid according to his contribution, the remuneration and methods of payment should be fair and afford maximum possible satisfaction to employees and employer.

10. Stability of Tenure

Unnecessary turnover of employees is both the cause and the effect of bad management. The employee requires assurance about the permanent nature of the job, resulting in a feeling of security and involvement in work.

11. Delegation of Authority

Because managers manage through the work of others, there should be delegation of authority. Through delegation, subordinates get prepared for higher responsibility. The needs, training, and motivation of the delegator and delegatee must match

12. Initiative

Initiative is the thinking out and execution of a plan. Employee should be given opportunities for use of creative ideas in their work. It is a means to job involvement and commitment to organisational goals—the keenest satisfactions for a worker to experience.

13. Subordination of Individual Interest to Organisational Interest

When the two differ, management must reconcile them. As the organisation is set up to meet the needs of society, the individual must sacrifice some selfish interests in the overall interest of the organisation and society.

14. Equity

Loyalty and devotion should be elicited from personnel by a combination of impartiality, kindness and justice on the part of managers, when dealing with subordinates. Subordinates must be treated without any bias for race, religion, sex and class. The principles propounded by the classical school of management are still in wide use today. But attempts to apply these principles blindly to health services organisations can be unsuccessful at times, because of the highly personal nature of the service and the professional work-force which render the services. Nevertheless, an understanding of these principles becomes necessary for all administrators including hospital administrators

Introductory Case Study

Managerial Coordination in a Multi-Specialty Hospital

Background of the Organisation / Sector

Multi-specialty hospitals in India provide diverse clinical services such as medicine, surgery, diagnostics, pharmacy, and nursing care. Effective delivery of these services depends not only on clinical expertise but also on strong managerial coordination.

Contextual Trigger / Problem

A large private multi-specialty hospital experienced delays in patient discharge, frequent scheduling conflicts, and staff dissatisfaction. Despite availability of doctors and infrastructure, inefficiencies persisted.

Stakeholders Involved

- Hospital administrator
- Department heads
- Nursing supervisors
- Support service managers
- Patients and attendants

Managerial / Behavioural Issues

- Inadequate planning of workflows
- Poor coordination between departments
- Staffing imbalances
- Weak supervision and control

Relevance and Importance to the Lesson

The situation highlights that **managerial activities such as planning, organising, staffing, directing, and controlling** are critical for smooth hospital functioning.

Explicit Linkage to Lesson Concepts

- Managerial activities in hospitals
- Role of hospital administrator
- Importance of coordination and control

3.1 Managerial Activities of A Hospital

The following activities are common to the management of all hospitals.

Determination of goals and objectives: This consists primarily with policy making. Facility and programme planning: This classification refers primarily to the activities involved in

remodelling existing services, organising new facilities, services and programmes. Financial management: This relates to financial affairs of the hospital. It includes budgeting and costing. Personnel management: This category relates to the selection, motivation and guidance of employees. It includes wage and salary administration.

Coordinating departmental operation: This category includes interdependent activities dealing with the internal functioning of all hospital departments. Frequent meeting with departmental heads would be one example.

Programme review and evaluation: The review and evaluation relates to the functioning of the clinical services and programmes, and is a continuous process.

Public and community activities: This concerns activities related to the development and maintenance of interaction with other health service institutions including shared-service arrangements with other hospitals.

Health industry activities: This classification refers to activities that are external to the hospital. It includes participation in hospital associations, third party payers (insurance companies, employers), etc.

Government-related activities: This activity is concerned with the legal problems of the hospitals and dealing with local, state and central government agencies. Educational development: The category includes all teaching and lecturing responsibilities, continuing education of hospital personnel and participation in professional conferences and continuing medical education (CME).

3.1.1 Planning

Planning, the foremost of management functions which enables the organisation to deal with the present and anticipate the future, is a process whereby management decides where it is at present, and where it wants to be at some time in the future. The process is one of forecasting, because forecasting seeks to provide the manager with information about the future, and involves considering the six questions.

1. What we expect to do?
2. Why will it be done?
3. Where will it be done?

4. When we expect to do it?
5. Who all are going to do it?
6. How will it be done?

The primacy of planning is all pervasive because the other management functions, viz. organising, staffing, directing and controlling follow upon forecasts, objectives, strategies and programmes developed through planning

The Purpose of Planning

The purpose of planning is to assure the most efficient utilisation of resources and economy of performance. The need for planning is felt because a particular situation presents an opportunity to do something and achieve something positive or, the need for planning is felt because a particular situation poses a problem and draws attention to that problem.

All managers engage in planning activities, the degree varying with their position in the organisational hierarchy. Given the scarcity of resources, hospital managers require to establish long- and short-range plans in order to avoid haphazard utilisation of resources. While a manager can be assisted in the planning process by various staff groups, it should be noted by each manager that the ultimate responsibility for planning rests with him alone. The function of planning cannot be delegated.

Because the management of an organisation decides where it wants to reach (or what it wants to achieve) at some time in the future, planning involves the choice of objective along with policies, strategies, programmes, procedures and rules that are necessary for their accomplishment.

3.1.2 Organizing

Because of the diversity of agencies providing medical care services, there is no uniformity in the pattern of hospital organisation. Even public hospitals run by the states, central government and local self-government agencies (municipalities and zilla parishads) have no uniformity in hospital organisation.

In the nongovernmental sector, hospitals are run by charitable organisations, religious groups, private (family) trust and public trust, cooperative societies, and now corporate bodies. The organisational structures widely vary, and there is hardly any such things as typical management organisation of the hospitals.

However, the general pattern is discernible in nongovernment hospitals as far as higher direction and policy making functions are concerned. A body, variously called as board of governors, board of management, management committee, or board of directors (in corporate hospitals) is responsible for the overall direction and administration of the institution. These boards differ greatly in size and scope of their responsibilities.

In a broader sense organisation is a rational combination of the activities of a number of people for the achievement of a common purpose or goal, by division of labour and function and through a hierarchy of authority and responsibility.

Hospital organisation, then, would involve the systematising of all technical, administrative and contingent activities and personnel so as to affect satisfaction to customers, employees and the agencies that make it possible to operate.

Organising is, thus, a process of grouping the necessary responsibilities and activities into workable units, determining the lines of authority and communication, and developing patterns of coordination.

The organisational structure is mainly determined by the size of the hospital. The chief executive or head is responsible to the board of management and his functions are to coordinate the work of the various departments, to act as a channel of information between the hospital staff and board of management, to advise the board on the hospital's general affairs, and to ensure that the board's directions are properly implemented.

The role of the top management is to direct and coordinate the activities of heterogeneous group of other subordinate managers engaged in managing the hospital's various services. Each of them exercises control over a unit. These "departmental managers" include at the upper end of the management scale the "line" managers of medical and nursing units (individual chiefs of medical or surgical teams, ward matron, matron-in-charge of operation theatres, etc. none of whom may consider themselves as managers at all).

The organisational process stems from the underlying premise.1 that there should be a common goal toward which collective effort is directed, that the goal is spelt out in detailed plans, that there is need for clear authority responsibility relationships, that power and authority factors need to be reconciled so individual interactions within the organisation are productive and goal directed, that conflict may be reduced through clarity of organisational relationship that unity of command must prevail, and that authority must be delegated.

3.1.3 Directing

Direction initiates and guides action towards desired objectives. Many factors determine successful direction, but the important ones are delegation, communication, training and motivation.

1. Delegation provides subordinates the authority in fulfilling their responsibilities.
2. Communication provides them with necessary information in performing their tasks, and provides feedback.
3. In-service training provides the subordinates opportunities to improve their knowledge and skills for better performance.
4. Motivation provides satisfaction to the workers in meeting their social needs and propels them to do their utmost up to their full potential

On one hand, an organisation has logical and well conceived plan, carefully designed organisational structure, good staffing and effective control technique. On the other hand, there is also the need for the employees to understand the organisation, feel that it is their own, to be motivated, and to willingly contribute all they can to organisational goals. Leading is the function that fills the gap between the two.

Effective leadership is needed to cause people to perform in a desired manner. Because effective leadership is vitally important to effective managing and because managing also involves creation of a cohesive environment, an analysis of human factors in an enterprise and a consideration of what motivates people is called for. Leadership, the key to effective managing, induces people to strive not only willingly but also with enthusiasm. Understanding leadership calls for understanding what motivates employees.

3.1.4 Controlling

Controlling, one of the managerial functions, is the measurement and correction of the performance of subordinates in order to ensure that the enterprise objectives and plans are being accomplished. The responsibility for the exercise of control rests with every manager charged with execution of plans. Although the scope of control varies among managers, the top and upper-level control is so emphasised that an erroneous impression is gained that little controlling is needed at lower levels.

Management control is defined as a process by which managers ensure that resources are obtained and used effectively and efficiently in the accomplishment of an organisation's objectives.

The primary purpose of control function is to ensure that the results, outputs, or organisational activity, i.e., the overall performance, corresponds to what is expected in each situation. It involves measuring the actual results against standards (expected results), and to take timely corrective actions if there are deviations.

Control presupposes two basic factors that are the prerequisites for any control system. Controls are Based on Plans Controls are based on plans. The more clear, complete and integrated the plans are, the more effective control can be.

Managers cannot determine whether an organisational unit is accomplishing what is expected unless they first know what is expected.

The Basic Control Process

The basic control process, irrespective of the department or activity, is the same. It involves establishing standards, measuring the performance, and correcting deviations.

Establishing Standards

Basically, standards are criteria of performance, made to give managers signals as to how things are going without their having to watch every step. End results are the best measures of plan achievement, and therefore, excellent standards of control. End result may be stated in terms such as quantities of products, units of service, speed, volume of sales, costs, capital expenditure, or profits. In health care, control standards can be broadly classified into "output controls" and "activity (or process) controls". Length of stay, bed occupancy, and number of outpatient visits per speciality are common examples. Other examples are revenue-to- expense ratio (to monitor financial viability), and utilisation of new service (to monitor growth). Standards can also be decided for programme implementation, resource allocation and resource utilisation. Some examples of these are staff turnover rate, consumption of stores and material, equipment utilisation, inventory levels and payroll expenses. Quality of care as monitored through quality assurance activities is an example of process (activity) control, reflective of the hospital's primary objective of quality patient care. Quality assurance is a critical control activity to ensure that patient care results are consistent with expectation and the processes associated with patient care are consistent with laid down procedures. Monitoring covers such

parameters as utilisation review, lengths of stay, readmissions, infection control, surgery review, etc.

Measurement of Performance

Appraisal of actual performance becomes easy if means are available for determining exactly what subordinates are doing. In health care, there are many activities where it is difficult to develop accurate measures of performance. As jobs move away from routinised activities of the assembly line type (for example, mechanical laundry or CSSD), controlling then becomes more complex. Not only many standards are difficult to develop, but appraisal may also be equally difficult.

Correction of Deviations

Deviations in performance need correction. A negative deviation from standards is an indication that something is wrong, the cause of which should be examined. Correction of negative deviations in performance incorporates other managerial functions. Deviations are corrected by reappropriating organisational process through reassignment of duties, fuller explanation of the job, by additional staffing, or by better training of personnel. At times correction of deviations may need better directing and leading. Apart from negative deviation, a positive deviation from standards may also suggest a problem. While this kind of performance may appear a happy matter, it is necessary to determine whether the positive deviation was a chance result or result of superior performance. Less than expected maintenance expenditure (and resultant budgeted saving) may point to a capping of the preventive maintenance activities or not replacing sick equipment. The control process is a combination of many actions in the management of an institution.

The top management takes the following steps:

1. Get the entire staff to understand and agree to the objective and goals set up by the management. Provide performance standards to guide all personnel on a job to-job basis.
2. Monitor current performance after objectives have been stated in measurable terms.
3. Compare performance results with objectives and goals.
4. Analyse causes of variance above or below the standards.

5. Decide corrective action where required. Management may decide to lower the objectives if objectives cannot be reached, or it may choose a different course of action to solve the problem and continue to fulfil the objectives.

6. Implement corrective action or new course of action.

7. Continue to monitor the results of the corrective/new action.

3.2 Realities of Hospital Organisation

How does the hospital's organisational structure stand up to any of the tenets of an effective organisation? The following differentiates the hospital as an organisation in comparison to other service organisations.

1. Every organisation has a "head". In every organisation there should be a clear line of authority for every individual. In a hospital, there are a number of important people who consider themselves as heads. Bringing together highly skilled professionals to work in a bureaucratic organisation has in-built organisational conflict.

2. The hospital organisation is besieged with absence of single line of authority and with two chains of command. On the one hand, there is the chief executive or medical superintendent. This authority flows to the matron, housekeeping, accounts, etc. from the top to the bottom (scalar chain). On the other hand, there is the hierarchy of the doctors and consultants. The smallest gradation of rank and status in the hierarchical character of medical and nursing organisation is notorious.

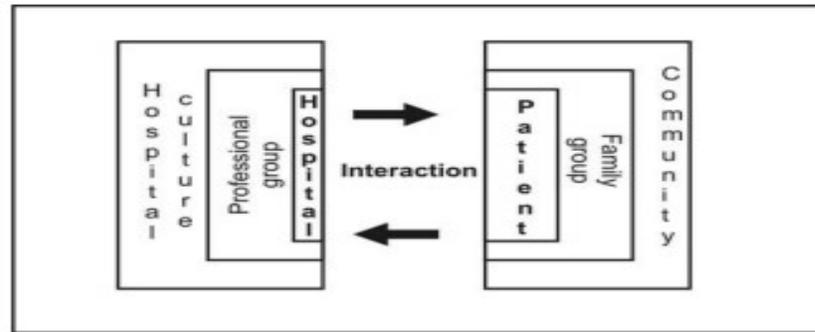
3. The hospital organisation is characterised by high interdependence. Because of the extensive division of labour and accompanying specialisation of work, practically every person working in the hospital depends upon some other person or persons for the achievement of his own organisational goal. Specialists and professionals can perform their functions only when a considerable array of supportive personnel and auxiliary services are put at their disposal at all times. For example, a surgeon cannot operate on a heart case unless catheter studies have been completed. Even before that, other investigations have to be available from the respiratory laboratory and biochemistry laboratory.

4. The timing of the movement of patients through the systems is largely controlled by chance or by a set of uncoordinated, individual decisions.

- Organisation of universities and research institutions have some semblance to hospital organisations in looseness of formal structure and in the degree of independence by their staff. In industry, the levels of authority, width of the span of control, ratio of managerial to total staff and indirect to direct labour can easily be determined. There is extensive division of labour in hospitals, but at the same time great interdependence of special skills. A hospital has been described by an industrialist as a “wildest kind of jobbing shop”.
- However, two additional factors characterise hospitals and hospital organisation. As opposed to other organisations, the individual goals of staff coincide more with hospital goals, and most of the hospital staff will “identify” themselves with hospital goals.
- Hospitals organisation is both authoritative and permissive, highly formalised yet loose-knit. The reason is the very special nature of hospital work. The crisis nature of work demands from a number of people— collaborative performance. Hospitals are extreme cases of an organisation peculiarly dependent for effectiveness on people, although crisis nature of work demands collaborative performance in other industries as well (Technology and Equipment).
- To the sick, a hospital is a place where they will receive treatment. To the domestic staff, it is a special kind of hotel with rooms to be cleaned and meals to be prepared. To all the staff, it is a place of employment, and to the junior doctors and nurses, it is a temporary home. Hospitals may mean different things to different groups of people at different times. But to the hospital administrator, it is an organisation, a consciously designed arrangement for management of people, services and things for a purpose. From the organisational point of view, the question to ask “what is a hospital for”, is more meaningful than “what is a hospital”

3.3 Hospital and its Community

In a complex juxtaposition between the providers of care and intermediate support group on the one hand and the patient and the community on the other, it will not be unusual to expect conflicts between the two groups. The nature of relationship between the two groups influences community relationship, and on this relationship depends the image of the hospital. To better this image, hospitals have to reorientate themselves to the expectations of the community



Relevant communication and information must reach the user community in order to promote their participation and involvement. A community that is well-informed and aware of its social responsibilities can become an effective instrument of cooperation and support.

However, the unpleasant fact that this community participation can be distorted by sectional interests trying to use the community as a pressure group (to attain specific objectives which are not always compatible with the paramount aims of the hospital programmes) need also to be remembered.

On the other hand, some questionable assumptions on which the value system in hospital is based are still prevalent among medical personnel. These are that cure is more important than the care of patients, that the staff assume power over the patients, that every problem has a solution, and that death is the worst thing that can happen to man.

Respect for the dignity of the patient is one of the most basic rights and needs of the patient. Concern for the care of the human being as a whole needs contribution from everyone working in the hospital. The hospital is like a federal system with several departments each enjoying considerable autonomy and discretion in its management of work. The great challenges is one of coordination.

Whether it wishes to stress its links with the community and its human and personal character, or its power and glory as a temple of healing will depend upon the hospital itself. From starting as a work of charity, hospital care has developed into a science with many specialisations, to a high perfection industry, but still a social institution which yet remains to be integrated with society. There has to be a growing interest in the importance of human well-being, in the integration of health services provided.

3.4 Summary

People go to the hospital with high expectations believing that every disease is fully and quickly curable. The average health consumer regards contemporary hospitals as the panacea to all his health problems. They cannot appreciate the limitations of the hospital. There is an increasing demand for better care and quick cure. Besides giving care to every patient public expects sympathetic understanding of the behaviour of the patient and his or her attendants and relatives. This shift has necessitated a new approach to doctor-patient and hospital-community relationship.

3.5 Key words

Planning- Planning, the foremost of management functions which enables the organisation to deal with the present and anticipate the future, is a process whereby management decides where it is at present, and where it wants to be at some time in the future.

Organizing- Organising is, thus, a process of grouping the necessary responsibilities and activities into workable units, determining the lines of authority and communication, and developing patterns of coordination

Directing- Direction initiates and guides action towards desired objectives. Many factors determine successful direction, but the important ones are delegation, communication, training and motivation.

Controlling- Controlling, one of the managerial functions, is the measurement and correction of the performance of subordinates in order to ensure that the enterprise objectives and plans are being accomplished

3.6 Self-Assessment Questions

1. Discuss the Managerial Activities of a Hospital
2. Explain the Realities of Hospital and its community?

B. Case Study for Self-Assessment

Managerial Functions and Service Quality in a District Hospital

Background

A district hospital provided outpatient, inpatient, and emergency services to a large population. Complaints related to long waiting time and staff absenteeism were increasing.

Situation Analysis

An internal review revealed deficiencies in manpower planning, supervision, and performance monitoring rather than lack of resources.

Integration of Lesson Concepts

- Planning of services
- Organising departments
- Staffing and supervision
- Control and evaluation mechanisms

Analytical Questions

1. Identify the managerial functions involved in this case.
2. How did lack of planning affect service delivery?
3. Explain the role of staffing in hospital performance.
4. Suggest managerial measures to improve service quality.

Model Answers (Indicative)

1. Planning, staffing, directing, and controlling.
2. Poor planning caused overcrowding and delays.
3. Proper staffing ensures balanced workload and efficiency.
4. Better supervision, scheduling, and monitoring.

3.7 Suggested Readings

1. C. M. Francis & Mario C. de Souza (2025). *Hospital Administration*. Jaypee Brothers Medical Publishers, 3rd Revised Reprint, ISBN 9788171797219
2. B. M. Sakharkar (2024). *Principles of Hospital Administration and Planning*. Jaypee Brothers Medical Publishers, 2nd Edition Reprint, ISBN 9788184486322
3. Joydeep Das Gupta (2023). *Hospital Administration and Management: A Comprehensive Guide*. Jaypee Brothers Medical Publishers, 3rd Edition, 270 pages, ISBN 9789356960800
4. Nikita Sabherwal (2023). *Understanding Hospital Administration Dynamics as per the NMC Competency Based Curriculum*. Ahuja Publishing House, Paperback, ISBN 9789380316918
5. Dinesh Bhatia, Prabhat K. Chaudhari, Bhupinder Chaudhary, Sushman Sharma & Kunaal Dhingra (2023). *A Guide to Hospital Administration and Planning*. Springer Singapore, 1st edition, Hard-cover and eBook, ISBN (hardcover) 978-981-19-6691-0

LESSON -4**HOSPITAL ADMINISTRATION****Learning Objectives**

- To study the Importance of Hospital Administration
- To Learn the Nature of Hospital Administration
- To Understand the Principles and Components of Hospital Administration

Structure

- 4.0 Introduction
- 4.1 Importance of Hospital Administration
- 4.2 Definition of Hospital
- 4.3 Nature of Hospital Administration
- 4.4 Meaning and Rationale of Hospital Administration
- 4.5 Components and Functions of Hospital Administration
- 4.6 Principles of Hospital Administration
- 4.7 Administration Vs. Management
- 4.8 Summary
- 4.9 Key words
- 4.10 Self-Assessment Questions
- 4.11 Suggested Readings

4.0 INTRODUCTION

The hospital is an organization that mobilizes the skills and efforts of widely divergent group of professionals. Semi-professional and non-professional personnel to provide highly personalized services to individual patients. Like other large organizations, hospital is established and designed to pursue certain objectives through collaborative activity.

The main objective of the hospital administration, of course, is to provide adequate care and treatment to its patients. Its principal product is medical, surgical and nursing service to the patient and its central concern is the life and health of the patient. A hospital may, of course, have additional objectives, including its own maintenance and survival, organizational stability and growth, financial solvency, medical and nursing education and research and various employee-related objectives.

4.1 Importance of Hospital Administration

Hospital administration is a science and the art of application of the principles of public administration. It deals with matters like promotion of health, preventive services and medical care, development of medical education and training.

Research studies of administrative practices in India, has felt that health administration is a crucial area for research since health administration is lacking research-based literature. Very few studies were conducted on health administration. Still adequate research work has to be under taken in this regard, mainly on the administrative and human resources practices of hospitals.

The success of a hospital is generally measured in terms of patient care, efficiency, experience of personnel and community service. Absence of any one of these requirements leads to failure. The administration is mainly responsible for success and smooth operation of the hospital. The administration should be available, approachable and be ever willing to meet and listen to the staff and the patients, and should be ready to do anything that is for the good of the hospital.

Hospital is the major social institution for delivery of health care in the modern world which offers considerable advantages to both patient and society. The word “hospital” is originated from Latin “Hospes”. The term has been used to refer to an institution for the aged, sick, and a place of rest.

The Hospital is an integral part of social organization. Its function is to provide complete health care for the population both curative/ preventive and its outpatient services reach out to the families and home environment.

The hospital is also a centre for training of health workers and bio-social research. The hospital is a media through which scientific technological innovations of medical sciences are put into operation and practiced for healthy living of the community. So, today hospital is a place for the treatment of human illness restoration of health and well-being of the people. Older concept of hospital for the provision of curative care is not valid any more.

A hospital’s role is not only in the provision of curative care, but an equally important role is, the provision of preventive & promotive health care.

4.2 Definition of Hospital

“Hospital without beds” is the latest concept about hospitals. Preventive and promotive efforts should be so effective that, the people should have optimum health with a minimum need for curative consultation, and even less for hospital admission. Various definition for the Hospital management provided by the professionals is listed below

a) **W.H.O.** expert committee on organization of health care defined Hospitals as follows; “The hospital is an integral part of a social and medical organization, the function of which is to provide for the population, complete health care, both curative and preventive, and, whose outpatient services reach out to the family and its home environment; the hospital is also centre for the training of health workers and for social research”.

b) **Other than this WHO definition**, the definition given in the "Directory of Hospitals in India, 1988" is to some extent simple and short. According to this definition, "A hospital is an institution which is operated for the medical, surgical and obstetrical care of in-patients and which is treated as a hospital by the Central/State Government/Local Bodies or licensed by the appropriate authority".

c) **As per the medical dictionary**, “Hospital is an institution that provides medical, surgical and psychiatric care and treatment for the sick or injured” (Oxford Advanced Learners dictionary, 7th Edition: 2005).

d) **According to Britannica Encyclopaedia**, “Hospital is an institution for diagnosing and treating the sick or injured, housing them during treatment, examining patients, and managing child birth. Patients can leave after treatment, come in for Significance of Hospital Administration

4.3 Nature of Hospital Administration

Hospital administration is a process of planning, policy formulation, planning of activities and decision making to provide best health care for patients.

Administration covers more part of planning activities as per need of patients and healthcare delivery system of the hospital

The term “Administration” has been derived from the Latin words `ad` and “ministrare” which means to serve, to care for. In simple language, administration means “the management of affairs”.

Administration may be defined as a co-operative group effort to accomplish common goals.

It plays an important role in mobilization and proper utilization of material and human resources to achieve the desired ends.

Administration is thus a goal-oriented, purposive and co-operative activity which is necessary for smooth running of every institution.

Hospital Management is an art of managing an institution i.e. hospital, its infrastructure facilities, manpower and overall services. Hospital Management professionals are dealing with directly with doctors and patients.

4.4 Meaning and Rationale of Hospital Administration

Hospital Administration, also often called health administration and medical administration, involves making both daily and long-term decisions that reflect the healthcare system's business strategies.

- ✓ Healthcare administration may involve the oversight and management of:
- ✓ An entire healthcare system
- ✓ Specific facilities, such as physician's practices, hospitals, and home health agencies
- ✓ Specific departments or units, such as critical care units, emergency departments, and cardiac care units
- ✓ Specific clinical areas, such as nursing, physical therapy, and cardiology

Specific areas, such as staffing, facility administration, admissions, and finances A hospital is no exception to this fundamental rule. Administration plays a vital role in the functioning of a hospital, more than it does in any other institution. In order to perform its functions efficiently, hospitals today must be organized and administered in a scientific manner. There is now a greater need for efficient administration in Indian hospitals because the number of people who utilize hospital services has increased manifold, whereas the financial and other resources available to hospitals in India have not kept pace with the growth in number of users. The optimum use of resources is possible only with an efficient and professionally competent administration. This demands that every member involve in hospital administration need to be adequately trained. Moreover, with the increase in the hospital's size and complexity, as also with the changing socio-economic conditions, the organizational relationship within the hospital has undergone a change. In short, having become a large-scale organization, the

hospital requires a more explicit organizational division of labour and more efficient and responsible management.

4.5 The Components of The Functions of Hospital Administration

The functions only as an administrative level and taking them as managerial function are distinct from each other and such a change is the demand of the time. It is relevant to see the distinction between these two concepts

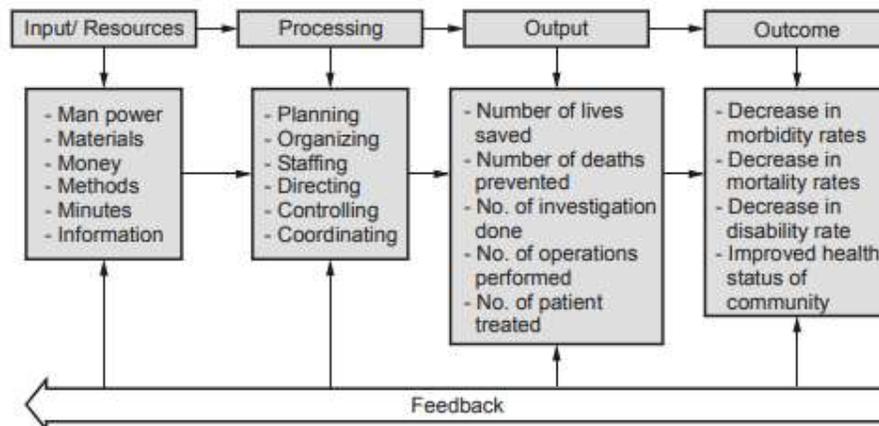


Figure 4.1 Components of The Functions of Hospital Administration

This a common work flow diagram for every hospital irrespective of its types. The above figure has to be seen from the view point of a system and following lines explain the input, process and output part of Hospital Administration as Health Care Delivery System.

Resource inputs:

- ✓ The process begins with inputs provided as different resources. These inputs are in form of man power, materials, money, methods, time and information collected.
- ✓ It is the job of hospital administration to provide skilled manpower in a required number as well as best quality material like beds, laboratory material for various departments of the hospital.
- ✓ It is the job of administration to make necessary arrangements of funds for purchasing purpose as well as for salary purpose.
- ✓ Hospital administration should finalize systems for each process in the hospital e.g. attendance of employees. The attendance will be taken by using biometric machine.
- ✓ It is the duty of hospital administration to finalize time for each activity in the various processes, carried out by departments. How much time should be given to prepare one

x-ray report? Administration should finalize the time. Administration should collect and provide all necessary information required for different activities

Process

- ✓ Inputs shall go to next step that is processing. With the help of planning, requirement of all resources will get finalized and resources as per need of the activities will get organized.
- ✓ Requirement of human resources will get fulfilled as per the need of the activity or process.
- ✓ As the process will start, close supervision will be needed to observe how employees are performing and completing the activity. If it is not as per standards, the performance will be controlled with proper checks. Diversions shall get controlled and output will be delivered.
- ✓ With the help of planning, requirement of all resources will get finalized and resources as per need of the activities will get organized.
- ✓ Requirement of human resources will get fulfilled as per the need of the activity or process.
- ✓ As the process will start, close supervision will be needed to observe how employees are performing and completing the activity. If it is not as per standards, the performance will be controlled with proper checks. Diversions shall get controlled and output will be delivered.

4.6 Principles for Hospital Administration

These principles were developed in the context of the hospital system but have relevance and usefulness to hospital Administration in India and other countries.

(i) Patient care of a high quality:

Patient care of a high quality should be achieved by the hospital through adopting following measures.

1. Provision of appropriate technical equipment and facilities necessary to support the hospital's objectives.
2. An organisational structure that assigns responsibility appropriately and requires accountability for the various functions within the institution.

3. A continuous review of the adequacy of care provided by physicians, nursing staff and paramedical personnel and of the adequacy with which it is supported by other hospital activities.

(ii) Effective community orientation:

Effective community orientation should be achieved by the hospital through adopting following measures:

- a) A governing board made up of persons who have demonstrated concern for the community and leadership ability.
- b) Policies that assure availability of services to all the people in the hospital's service area.
- c) Participation of the hospital in community programmes to provide preventive care.
- d) A public information programme that keeps the community identified with the hospital's goals, objectives and plans.

(iii) Economic viability:

Economic viability should be achieved by the hospital through taking these measures:

- a) A corporate organisation that accepts responsibility for sound financial management in keeping with desirable quality of care.
- b) Patient care objectives those are consistent with projected service demands, availability of operating finances and adequate personnel and equipment.
- c) A planned programme of expansion based solely on demonstrated community need.
- d) A specific programme of funding that will assure replacement, improvement and expansion of facilities and equipment without imposing too much cost burden on patient charges.
- e) An annual budget plan that will permit the hospital to keep pace with times.

(iv) Orderly Planning:

Orderly planning should be achieved by the hospital through the following.

- a) Acceptance by the hospital administrator of prim responsibility for short and long-range planning, with support and assistance from competent financial organisational, functional and architectural advisors.

- b) Establishment of short and long-range planning objectives with a list of priorities and target dates on which such objectives may be achieved.
- c) Preparation of a functional programme that describe the short-range objectives and the facilities, equipment and staffing necessary to achieve them.

(v) Sound architectural plan:

A sound architectural plan should be achieved by the hospital through the following:

- a) Engaging an architect experienced in hospital design and construction.
- b) Selection of a site large enough to provide for future expansion and accessibility of population.
- c) Recognition of the need of uncluttered traffic patterns within and without the
- d) hospital for movement of hospital staff, patients, and visitors and for efficient transportation of supplies
- e) An architectural design that will permit efficient use of personnel, interchangeability of rooms and provide for flexibility.
- f) Adequate attention to important concepts such as infection control and disaster planning.

(vi) Medical technology and planning:

Developments in medical technology are taking place so rapidly that now the use of sophisticated technology determines professional status. The diffusion of medical technology vis-a-vis shortage of resources constantly plays on the minds of the planners.

Even in western countries, “rational” planning for medical technology is an evasive subject. The workshop on problems of planning of health services in urban areas in Europe felt that rational planning is aided by a hospital hierarchy of specialisation, and by national review agencies which have strong links with similar agencies in other countries.

The Principles of Hospital Administration includes

- ✓ Protection from unwanted and unnecessary disturbances to help speedy recovery
- ✓ Separation of dissimilar activities
- ✓ Control the nurse’s station should be positioned strategically to enable proper monitoring of visitors entering and leaving the ward, infants, and children should be protected from theft and infection, etc.

- ✓ Circulation all the departments, yet keep them all together; separate types of traffic, yet save steps for everybody; that is all there is to hospital planning,

4.7 Administration Vs. Management

Administration includes the following activities termed as POSD CORB (Guillick).

Planning, organizing, staffing, directing, coordinating, reporting and budgeting.

The term “hospital administration” covers a large number of activities which may roughly be classified into three categories.

Preparation of hospital legislation, planning of the hospital system as a whole, determination of international policy, regulation for the operation of hospitals, establishment of architectural control and standards.

Application of hospital legislation and of social assistance provision by the authorities responsible for the management of hospital services whether they be local or regional, public or private.

Daily running of the hospital by the administrative staff concerned with personnel, finance accounts and technical services

Management

Management is an old process and has existed ever since man has been organized into communities. It is sometimes thought to be a process of 20th Century but this is not so. Where and whenever people have worked together in-groups to grow crops, to buy and sell, to wage wars, to build a temple, there was management.

The most comprehensive way to define management is:

Management is a key process. The function of management is to enable our patient/doctor/nurse team to do their job as easily, efficiently, economically, effectively and as humanly as possible so that they can develop and maintain a caring environment within the Hospital.

It is the process of organizing, using and controlling human activities and other resources towards special end

Management is a process whereby resources in term of people, finances, equipment and facilities are mobilized, ideally in an efficient and effective manner to serve the purposes of an institution.

Resources are;

- Men
- Money
- Materials
- Machinery
- Methods

4.8 Summary

Under today's conditions, the traditional skill-set of managers who only deal with basic functions remains insufficient in the face of the changing health services market. It shows that the administrative skills possessed by hospital administrators needs to involve more complex and broader responsibilities to respond to the changes taking place outside the hospital. Healthcare managers perform a wide variety of roles. To perform these roles effectively, they must possess specific competencies to produce the desired outputs According to in addition to the traditional functions they fulfil, effective managers also need to have interpersonal skills. Furthermore, it is expected for managers to be in sustainable relationships and interaction with the staff of other departments, and to be considered role models by others. Effective administrators with developed interpersonal skills who base their decisions on data make a significant impact on how successful an organization is at reaching its goals.

4.9 Key words

Hospital administration- Hospital administration is a science and the art of application of the principles of public administration. It deals with matters like promotion of health, preventive services and medical care, development of medical education and training

Medical Technology- Medical technology are taking place so rapidly that now the use of sophisticated technology determines professional status

4.10 Self-Assessment Questions

1. Define Hospital Administration? Briefly Explain the Nature of Hospital Administration?

2. Elucidate the Components and functions of Hospital Administration
3. Give a Note on Principles of Hospital Administration

4.11 Suggested Readings

1. C. M. Francis & Mario C. de Souza (2025). *Hospital Administration*. Jaypee Brothers Medical Publishers, 3rd Revised Reprint, ISBN 9788171797219
2. B. M. Sakharkar (2024). *Principles of Hospital Administration and Planning*. Jaypee Brothers Medical Publishers, 2nd Edition Reprint, ISBN 9788184486322
3. Joydeep Das Gupta (2023). *Hospital Administration and Management: A Comprehensive Guide*. Jaypee Brothers Medical Publishers, 3rd Edition, 270 pages, ISBN 9789356960800
4. Nikita Sabherwal (2023). *Understanding Hospital Administration Dynamics as per the NMC Competency Based Curriculum*. Ahuja Publishing House, Paperback, ISBN 9789380316918
5. Dinesh Bhatia, Prabhat K. Chaudhari, Bhupinder Chaudhary, Sushman Sharma & Kunaal Dhingra (2023). *A Guide to Hospital Administration and Planning*. Springer Singapore, 1st edition, Hard-cover and eBook, ISBN (hardcover) 978-981-19-6691-0

LESSON -5**ROLES OF HOSPITAL ADMINISTRATOR****Learning Objectives**

- To study the Role towards the patient
- To learn the Role towards the organisation
- To understand the role towards the communication

Structure

5.0 Introduction

5.1 Role towards the Patient

5.2 Role towards the Organisation

5.3 Role towards the Communication

5.4 Skills of Hospital Administrator

5.5 Types of Hospital Administrator

5.6 Summary

5.7 Key words

5.8 Self-Assessment Questions

5.9 Suggested Readings

5.0 Introduction

The hospital administrator basically works at the background to make things happen and to ensure that the hospital runs effectively and efficiently. At this point it must not go away with the impression that there is only one person as the hospital administrator managing the entire hospital all alone. In fact, in a typical moderately large hospital there is a top administrator who is assisted by several assistants functioning at different levels in the hospital organisation. The role of the hospital administrator will vary depending upon the nature and complexity of the hospital. In this unit it will learn about the functions of a hospital administrator obtainable in most of the hospitals. For a better understanding of these functions, we shall subdivide the roles of a hospital administrator as role towards the patients, role towards the organisation, role towards the community and finally the attributes, quality and skill requirements of a hospital administrator.

5.1 Role Towards Patients

Hospital performs promotive, preventive, curative and rehabilitative functions to a varying extent in relation to the health care delivery to the community, yet the primary reason for the hospital's existence is for the curative care. The patients are the sole reason for a

hospital's establishment. A hospital, therefore, has to design its entire operational system entering round the patient. The hospital administration has to ensure that this objective of a hospital is achieved in its entirety.

5.1.1 Profile of a Hospital Patient

A patient is a person and a member of the society in need of medical care. He is not an object and not a disease entity. When he comes to the hospital, he brings along with him all his emotions, all his need for individuality and his need of independence. A hospitalized patient is under great stress. The reasons for this stress are unfamiliarity with the hospital surroundings, loss of independence, separation from the family, financial problems, isolation from the people, lack of information, fear of death and, anxiety with the treatment modalities and the attitude of care givers.

Though it is expected that a nurse will give equal care to all patients and will not allow personal liking or disliking interfering with their professional duties but in actual practice this does not happen always. Patients who grumble or complain or demand more attention from the nurses usually become unpopular. Patients with physical defects, obesity, of foreign nationality and those patients who stay longer are also unpopular with the nurses.

The hospital administrator has a great responsibility to understand and appreciate these behavioural aspects of patient care and take appropriate measures to negate these dysfunctional aspects.

The hospital administrator also has to understand the specific needs of certain special group of patients so that those needs can be met. These groups are patients in wheel chair, elderly patients, paediatric patients new born babies and patients in intensive' care units.

5.1.2 Creation of a Friendly Environment

The hospital surroundings and the environment are in familiar to the patients. Hospitals usually have imposing buildings, strict rules and procedures and expected norms of behaviour from the patients. The formidable and intimidating looking gadgets and usually glum faced non-communicative functionaries further enhance the alienation of the patients. Hospital administration has to recognize these and all necessary measures to make the Hospital as friendly to the patients as possible.

5.1.3 Patient's Physical Needs

A hospitalized patient has very little control over his environment. Moreover, the disease process might have made him dependent on others for his physical needs. The needs which must be looked after by the hospital administration include physical comfort with proper and comfortable beds and environmental control with proper temperature, humidity and lighting. bathing, feeding, sanitation, mobility and so on. Control of noise and excessive glare from lighting needs to be looked into. Besides the physical comforts, needs for privacy and security also have to be given due importance. The needs of the individual patients vary and hospital administration should device the system in a manner that these needs of the individual patients are met.

5.1.4 Patient's Emotional Needs

A patient is usually under great emotional stress in hospital. Sadness, loneliness, uncertainty, fear, helplessness, despair all contribute to emotional stress of the patients. It is the duty of the hospital administration to recognize these aspects and do whatever is possible to reduce these stresses. All may not be controllable but at least their effects can be minimized by appropriate measures, policies and procedures, behaviour modification of functionaries, longer visiting hours and facilities of communication with their near and dear ones.

5.1.5 Patient's Clinical Needs

The primary reason of hospitalization of a patient is to get treated or to get certain diagnostic tests performed. The patients will always like to get these things done at the earliest without any delay. The hospital administration has to design the system in such a manner that this aspect of patients' needs is fulfilled. Procedures for admission, investigation, consultation, treatment and discharge must be streamlined in order to achieve this objective. Hospital bottlenecks which can interfere with quick disposal of patients' needs to be identified and removed. Stock out of drugs and supplies needs to be controlled.

5.1.6 Patient's Satisfaction

If there is no patient there will be no hospital. Therefore, it is in the interest of the hospital that the administrator must take all possible measures to obtain the greatest degree of patient satisfaction. For this purpose, the hospital administrator has to identify various dissatisfies in the total service components delivered to the patient. The dissatisfies may be in the dietary services, may be in the behaviour of nurses or may be in the environmental condition

of the hospital. Removal of the dissatisfiers may not immediately improve the satisfaction level of the patients. For this purpose, the hospital administrator has to identify the items of services that positively improves the satisfaction level of the clientele. Patient satisfaction is an important indicator of quality of care being given to the patients. This is also necessary for survival and prosperity of the hospital.

5.1.7 Patient Education

The patients are usually lay persons. They are ignorant about the high technicalities of modern-day medical science. They need to be educated regarding various aspects of the medical care given to them. This is necessary for better patient's compliance. Patient can participate better in the treatment process if they know why and how of the care being given to them. The hospital administration has to devise means to seize all opportunities to educate the patients. For example, a diabetic patient may need education regarding his diet, his way of life, necessity of regular check-ups and so on. A young mother may have to be advised regarding the desirability and methods of breast-feeding. Hospital administrator has to provide facilities and take appropriate measures for training and motivation of hospital functionaries for achieving this objective. The hospital policy manual and medical staff by laws also must incorporate these aspects.

5.2 Role Towards Organisation

The primary duty of hospital administration is to manage the hospital effectively and efficiently by utilization of resources placed under its command to achieve the hospital objective. This complexity arises from the facts that there are a large number of professional groups functioning in a hospital with diversity of objectives. These groups take part in patient care, housekeeping, maintenance services for building and equipment, dietary services, security, electronic data processing, hotel type of accommodation and varieties of investigations and procedures on patients. Because of diversity of objectives, there is a potential fertile ground for conflict. Effective coordination, clear enunciation of policies and procedures, delineation of functional boundaries and so on are necessary by the hospital administration. Unlike other organisation, a hospital deals with life and death situation and functions continuously round the clock with personnel whose skill and education levels vary widely. The hospital administration has to bring in unity among this diversity. A paradox in hospital organisational structure is its duality of command in its many aspects. This is again a potential conflict situation that a hospital administrator is frequently called upon to resolve.

5.2.1 Strategic Planning and Management of the Hospital

During the last several years, the provisioning of health care delivery in India, is gradually shifting from the government sector to the private sector. This was necessitated by the forces of globalization, rapid technological changes, increasing customer expectation, demand for high quality care and increasing purchasing powers of certain sections of the clientele. More and more corporate houses are joining the fray of hospital business. As a result the competition is becoming intense and sometimes the survival of the hospital is also at stake. Thus, in response to this pressure, the hospital administration is becoming gradually professionalized. Strategic planning and management has become a necessity to circumvent the effects of the changes in the external environment of the hospital.

Strategy is the explicit, pro-active, long-range programme to achieve the hospital's objectives and thus accomplishing its mission. The strategic planning is concerned with laying down the objectives after situational appraisal of both external and internal environments, programme implementation, allocation of resources and control.

The top hospital administrative echelon is responsible for the strategic planning and its implementation in a hospital. The hospital administration has to identify the weaknesses, opportunities, threats and strengths of the hospital. This will lead to choose of a strategy, formulation and reformulation of objectives and orientation of hospital's resources to achieve them.

The steps that the hospital administration must take for strategic planning and implementation are as under:

- ✓ Formulation of objectives of the hospital
- ✓ Defining of present objectives and strategy
- ✓ Environmental appraisal to determine strengths and weaknesses of the hospital
- ✓ Finding out opportunities and threats
- ✓ Modifying the present strategy to bring it up to the desired level
- ✓ Implementation of the strategy
- ✓ Monitoring and control

5.2.2 Relating the Hospital to the External Environment

It has to depend for many things on outside agencies. The role of any organisation is to obtain inputs from outside, process them and convert them into an output. The outputs can be

either services or goods. The produce of the hospital is again utilized by the outside elements. The external environment, then, consists of those elements which directly or indirectly influences the functioning of the hospital.

The elements can be listed as under:

- ✓ Material supplies
- ✓ Manpower supplies
- ✓ Supply of finance
- ✓ Consumers
- ✓ Regulatory agencies
- ✓ Political groups
- ✓ Other similar organisation
- ✓ Press and other media
- ✓ Environmental Protection Activist
- ✓ Technology change
- ✓ Economic environment
- ✓ Social and cultural milieu
- ✓ Political, legal and ethical environment
- ✓ International environment

Some of these elements influence the organisation directly and some interact with the - organisation in an indirect manner. The hospital administration has to take all these elements into account for their managerial activities of planning, organising, staffing and controlling.

Any change in the external environment will have a direct or indirect bearing on the functioning of the hospital. The hospital administration might have to formulate their objectives and planning taking all these factors into account. To be effective, a hospital administrator has to anticipate the changes in the external environment by monitoring them on a day-to-day basis. He has to take pro-active action to circumvent negative impact of these changes and seize the opportunities offered by these changes. The hospital administrators can use the various forecasting techniques available to anticipate these changes. If the hospital administrator fails to respond to the changes in the external environment as they occur, their hospital may lose the ground to their competitors and may not remain viable.

5.2.3 Operational Management of the Hospital

The hospital administration has to run the hospital on a day-to-day basis to render patient care, which is the primary objective of the hospital, with the personnel, finance, accounts, technical and supportive services. In order to do this the hospital administration has to create a functional organisation that will be effective and efficient in order to achieve the hospital objective. The structure of the hospital need not follow any stereotyped fashion but must be responsive to the needs and demands of the situation. Expectation of the society, concepts, philosophies, accepted and time-tested principles must be taken into consideration and adapted to the prevailing environment conditions to determine the organisational structure of the hospital. The organisational structure must also take into account the ethical aspects and standards that is expected of the hospital.

Many of the hospital's functions are repetitive in nature. The hospital administration must lay down certain directives to guide the various functionaries regarding the activities to be carried out by them. When to deal with a situation an employee must know, what he should do, how he should do it and what he ought to do or ought not to do. The hospital administrator has to clearly out his day-to-day activities efficiently and effectively managing the hospital by laying down the policies, procedures and rules.

Policies: Everyone has to make some decisions big or small regarding his areas of activities. When faced with such a situation nobody can sit down to undertake various steps necessary for a formal decision making. Policies are formulated to take care of such situations. Policies are general guidelines for decision making. In an organisation policy determines the perimeters within which the employees have to take their decision. It is the duty of top management to lay down the organisational policies. Policies contribute to effectiveness of the organisation. It can also help to avoid conflict situation.

Procedures: Procedures are customary way of doing things in an organisation. It guides the future activities. When some kind of functions occur repeatedly, it tells them how that activity will be performed. Sometimes this is also called standard operating procedures. It helps new employees to perform a particular function without much external assistance. This will also avoid variability in performance of a function and all functionaries can perform a particular job in a consistent manner. Essentially a procedure lays down the chronological sequence of an action.

Rules: This lays down the actions that must be done or must not be done in a given situation. When a rule is applied to a particular situation, there is no scope for discretion. Rules are usually very rigid in its interpretation and application. This absolves a lower-level employee from the burden of decision making and consequences of a decision provided, of course, the rules are applied correctly to that particular situation. Rules are part of operational plan made by top level of hospital administration. It ensures conformity and accountability for the actions of the subordinate staff. The rules must be framed in a most explicit manner so that there is no ambiguity in its understanding.

5.2.4 Managing Hospital Staff

But in spite of the highly technical environment of the hospital. Human element still remains the sheet anchor of success of any hospital. A hospital employs a large number of people of different categories with widely varying educational and technical background. Some of them are highly skilled professionals while some others are of moderate education and without possession of any specific skill. This calls for a very efficient degree of personnel management.

Personnel management in essence involves the following elements of function by the hospital administration.

- a) **Manpower planning:** A hospital in order to grow and function effectively needs a supply of well-qualified and efficient employees in adequate numbers. Advance planning and actions are necessary for this purpose.
- b) **Recruitment:** In order to have adequate supply of trained manpower, the hospital has to acquire these personnel through a process of recruitment. The hospital may not face any difficulty in recruiting highly trained people if its image is positive.
- c) **Selection:** The process of selection involves mutual decision making on the part of the hospital as well as the candidate. This is not always an easy task. The hospital administration will always want to hire the best people. The process begins with an ' application form the candidate. If there are a large number of applicants for a particular job, an initial screening interview may be held to short list the prospective candidates. Testing follows this. In this process the hospital administration tries to evaluate the candidates' skill level to determine whether these matches with the job specification. This will be followed by background investigation to check the genuineness of the applicant. Thereafter in-depth selection interview

may be held or may be omitted, If the candidate is found suitable at this stage the he is subjected to a physical examination and finally if everything is alright, a job offer is made.

d) Training: The Hospital is a knowledge-based organisation. A new recruit needs to be given induction training in which he is introduced to the job. Training is required to learn new techniques and concepts. Remedial training is most often necessary. if the employees are found to commit mistakes and the quality of their output is not up to the desired standard. Some retraining may have to be organized by the hospital administration, if some of the employees are displaced to another job so that they can be gainfully employed. For developing and employee and for his advancement. training has to be imparted.

e) Performance Appraisal: The hospital administration will always like to know how well an employee is performing in his current job. The process of performance appraisal can determine this. The information obtained although performance appraisal can be utilized for determining the level of compensation, placement of the employee to a suitable job or for his advancement, or, in case he is performing poorly, for his discharge. Performance appraisal may also indicate the need for training and development. The Hospital administration must very carefully determine the procedure of performance appraisal because quite often it is a starting point of employee dissatisfaction. The methods used should be, as far as practicable, objective and without any bias.

9 Grievance Procedure: To agree that in ally organisation employees will have occasionally some grievances. These usually have a snowballing effect and may degenerate into a major conflict situation between the management and the employees. It is, therefore, imperative that the hospital administration must install an appropriate, functional and active grievance procedure through which the employees can seek redress of their grievances. Grievance procedure is a formal method mutually agreed upon by the management and the union. It is a step-by-step procedure that specifies the persons to whom the grievances can be referred and also the time limit for solving the referred grievance. It also indicates the way the grievance should be submitted to different stages of its handling.

g) Discipline: The hospital administration while recruiting people will try their best to recruit people who will be well disciplined. Yet there will be occasions when there will be a need to discipline employees. Self-discipline is the best discipline and it is an attitude of mind. The hospital administration should lay down rules and regulations that the employees can perceive as just and reasonable. In such cases the employees will usually follow them unhesitatingly.

Though it is always best to avoid in discipline, yet sometimes it will be unavoidable. The penalties imposed should be commensurate with the degree of indiscipline. It is preferable to have increasingly severe awards of punishments each time a person is successively disciplined. The penalties can take the forms of oral warnings, written warnings, stoppage of increment in salary, withholding promotion if due, disciplinary layoff, demotion and finally discharge. The hospital administration must be very cautious while disciplining an employee. It should be immediate, with warning, consistent and impersonal.

h) Wage and Salary Administration: Hospital administration must make special endeavour for wage and salary administration. With a proper salary administration, the hospital will be able to recruit satisfactory employees. It is a motivational tool and it can reduce the incidence of personnel grievances. The hospital administration has to take appropriate measures for salary and wage administration, as it is the largest item of hospital cost. There are four closely related items of wage and salary administration.

These are, wage and salary survey which will indicate the general pay level in similar organisations, job evaluation which will relate wages and jobs within the organisation, merit rating in which new employees start at a base salary and gradually progress to higher scales through merit rating and, lastly, incentives in which for a normal level of productivity the employees get a base level of salary and if the productivity is higher, the employees will get an incentive bonus. In corporate hospitals, most of the consultants are paid a percentage of the earnings from the patients treated by them.

This is also an incentive scheme that motivates the consultants for higher productivity.

- i) Collective bargaining: Hospital administration has to sit many times at the negotiating table with the representatives of the workers' union. Collective bargaining is an important process in industrial relation where the management and the union directly negotiate the terms and conditions of employment or working environment or any other issues affecting the employees. Collective bargaining is an important means of maintaining industrial peace. The management must recognize the rights of the union to negotiate and both the parties must have trust and confidence for each other. In this regard attitude of the management and the union towards each other is important.

5.2.5 Managing Hospital Materials

Materials cost almost fifty per cent of hospital budget. There are two types of cost: cost of materials and cost on materials. It is necessary for the hospital administration to reduce these costs. The scientific materials management techniques can address these aspects.

Materials management involves as a single responsibility the systematic flow and control of materials from identification of need through customer delivery. Objective of materials management in a hospital is to render better service to the patients and improve profitability by reducing costs. Stock out of a vital drug may cost the life of a patient. This cost cannot be measured in monetary terms. The hospital administration, therefore, has an added responsibility in comparison to other organisations for efficient management of materials in a hospital. The materials management functions include:

- a) Developing specification for materials
- b) Materials planning and programming
- c) Procuring materials through centralized purchasing
- d) Receiving
- e) Distribution
- f) Inventory control
- g) Storage and preservation
- h) Transportation
- i) Materials handling
- j) Disposal of scrap and obsolete materials, equipment and surplus material

The Hospital Administration has to lay down various policies and procedures for purchasing, distribution and disposal. Prevention of theft and loss of material are important managerial functions. The hospital administration must take measures to reduce these menaces. Thefts can be in the form of manipulating various records. Laying down appropriate policies and procedures can reduce these.

5.2.6 Managing Hospital Finance

Hospital financial management is an important area of functioning of hospital administration. For this purpose, various tools and techniques are available to the hospital administration. The first step in the financial control process is the programming. Programming is the process of deciding on the nature and size of the programme that are to be undertaken in order to achieve the hospital's goal. The most widely known programming system in non-profit organisation is PPBS - Planning - Programming - Budgeting System. The tool that can be used to evaluate a programme is Benefit Cost Analysis. The other tools that are used for financial management are various kinds of budgets - Capital Budget, Cash Budget,

Operating Budget etc.

The financial management control process involves two further activities: control of , operations and measurement of output. In the activity of control of operations, control is exercised on spending, on adding personnel or spending on material. The financial control is to see that the organisation achieves its stated objectives. In the output measure, three aspects are seen. These are results measure that is a measure of output expressed in terms that are related to the hospital's objectives, productivity measure and social indicators.

The hospital administrator should be able to understand various financial statements like a balance sheet, profit and loss account and so on. The hospital must constantly monitor the financial health of the hospital in order to ensure its survivability. For this purpose, various tools are used which are basically determination of ratios. Some of these are: Operating margin (price level adjusted) ratio, non-operating revenue ratio, Return on equity, Liquidity ratio, Long-term debt to equity, Total asset turnover, Days in patient account receivable and so on.

5.2.7 Managing Hospital Information

Information is an essential ingredient of decision making. Information is necessary at various levels to function effectively. Hospital administration has to design an information system that can deliver quality information which is timely and accurate. The essential functions to be included in the hospital information system are medical functions, administrative functions and financial functions.

'These three broad functional areas can further be subdivided into several levels. These are:

- a) Transaction Processing. Examples are: order entry of drugs, diet, linen, census, patient billing, inventory control, treatment scheduling for operation theatre. physiotherapy, special procedures and so on.
- b) Control Function. Examples are: medical care evaluation, occupancy and patient mix, surveillance of hospital infection, cost control
- c) Operational Planning. These may include: staff education, patient care planning, discharge planning, purchase plans, budgeting.
- d) Strategic Planning. Examples are: services to be offered, levels and sophistication of patient care to be planned, hospital image improvement plan. To the management of information one of the most important aspects to be looked into by hospital administration is the medical records department. This is the most important source of hospital information.

5.2.8 Maintaining Relationship with the Medical Staff

The hospital administration has to maintain a cordial relationship with the medical staff. The objective of both the groups is that of rendering better patient care. The medical staff directly delivers the patient care whereas the Hospital administration provides the facilities and resources for this purpose. Both the groups must work within an environment of mutual trust respect and confidence.

However, occasionally, some problem does arise. These are mainly due to misunderstanding due primarily to poor communication. The hospital administration has to keep the medical staff informed about the organisational policies and changes whenever these occur. The situation in which both the groups' function has a potential for conflict. The medical staff is concerned for the patients and for their own economic interest. The administration is concerned for the entire hospital, the employees and the economic health of the hospital.

However, the medical staff who understands the reasons for the policy changes will be more appreciative of the constraints of the hospital administration and will be more supportive.

- The hospital administration, therefore, must freely and frankly communicate with the Medicare staff, listen to their problems patiently and sincerely try to solve them. If there is no apparent solution immediately available, then that fact must be explained to the medical staff. The medical staff regards the administration as problem solver, as provider of resources, as catalytic agents, as facilitators and holds them responsible and accountable for any deficiency in these functions. It will appreciate that as the medical staff is the agency through

which the medical care is delivered a harmonious relationship has to be maintained with them by the hospital administration.

5.2.9 Maintaining Relationship with the Public

A hospital is a community institution. For its survival it needs support from the community. It is necessary for the hospital administration to know the needs, demands and aspiration of the public. Hospital also has to constantly endeavour to inform the public that what it is doing for them and they should expect from the hospital. Essentially, management of relationship with the public has four primary aspects. These are:

- a) To know about public desires and aspirations
- b) Educating the public about what it should desire
- c) Arranging satisfactory contact between public and the hospital and
- d) Informing the public about what the hospital is doing

The top hospital administration has to take it upon themselves, the public relation activities as one of their primary responsibilities. It should be undertaken as a planned process and as an ongoing activity.

Risk Management of the Hospital

It opens a newspaper in the morning, quite often it may come across news item pertaining to hospital. These may be consisting of reports regarding death of a patient due to negligence on the part of the hospital, damage to the hospital property due to vandalism by the public, hospital having been asked to pay huge compensation to a patient by a consumer forum. There may be other kind of damage to the hospital property by fire or flood or any by another natural calamity.

Like any other organisation a hospital is also exposed to many kinds of risks. In a hospital there is an added element of patients. Due to increased awareness of the public, the hospitals many times find themselves in an embarrassing situation due to certain faults in their functioning. Hospital administration, therefore, must take all measures, firstly, to avoid risk and then to minimize the effects of the risks. The hospital administration must have a very positive outlook towards the risk management. This positive attitude will percolate to the supervisory staff and down to the lower-level employees. Security and safety consciousness then can be ensured.

5.2.10 Managing Ethics and Code of Conduct

Ethical behaviour is necessary throughout the medical practice. Though most of the tenets of ethical practice are outside the preview of law, the guiding principle is welfare of the patients. It is basically a self-imposed responsibility of the medical profession. The hospital administration has to maintain an ethical environment in the hospital so that patient's interests are served. The hospital administration has to lay down appropriate rules, regulations, policies and procedures for everyone to follow. The broad areas that need to be looked into are: Consent of the patient to disclose information, right to information of patients, Ethical relation of a doctor with other doctors and io on. All doctors know the source of medical ethics originated in the Hippocratic oath. Besides these, ethical codes govern the experiment and research involving human subjects. Helsinki declaration, in which most of the nations including India are signatory, lays down the conditions and procedure to conduct such research.

5.2.11 Managing Legal and Statutory Responsibilities

Since independence various legislations have been enacted by the parliament in India to govern the functioning of the health care institutions. Even before independence many such legislations were in force. These legislations cover a wide range of topics including health, manpower, disease control, family health, reproduction, mental health, food safety, control, manufacture and safety of drugs, transplantation of human organ, pollution control and disposal of biomedical waste. The sources of these controlling legislations are as under:

- a) Constitution of India (1950)
 - b) Indian Penal Code (1 860)
 - c) Medical Council Act (1956)
 - d) Consumer Protection Act (1 986)
 - e) Transplantation of Human Organ Act (1994)
- 9 Biomedical Wastes (Management & Handling) Rules (1998)

It is mandatory that the hospital function within the boundaries of these acts. Hospital administration has a duty to lay down the provisions of this legislation in the policy and procedure manual of the hospital. In addition, hospital administration has to train the functionaries about these laws so that no violation occurs. Moreover, they have to install a

monitoring mechanism, to watch for any probable breach and take remedial measures before they occur.

5.2.12 Managing Marketing Responsibilities

Marketing means that a party receives something of value from another party in exchange of something of value health services a patient receives medical care for which he pays a charge. This payment may be paid directly by him or indirectly by another agency.

Today's hospital function in a competitive environment. Competition has a positive impact on health care delivery system. It helps in reducing cost; services will be more efficient and provides some impetus to improve quality.

Marketing audit helps the hospital administration in diagnosing the external environment and then formulating objectives for implementation.

The marketing responsibility though may be entrusted to the marketing department manned by personnel with marketing background or the responsibility may be given to an outside consultant, yet the top management has the responsibility for planning, development and implementation of marketing activities.

Marketing involves the management of four factors essential to the delivery of health care.

These are:

- a) Product: The range, variety, sophistication and level of services to be offered is the product.
- b) Place: How and where the services will be offered - hours, outpatient, inpatient or domiciliary services.
- c) Price: This includes the price paid by the patient either directly or indirectly or his man include other intangible costs the patients incur.
- d) Promotion: This is the mechanism of making the patient aware of the services offered by the hospital and also involves aspects to create an interest in him to use the services whenever needed by him or by his friends. Thus, effective marketing strategy will ensure proper utilization of the hospital's facilities and maintain its competitiveness.

5.2.13 Quality Management of the Hospital Services

Hospital administration is duty bound to provide high quality services to their clientele. This can be achieved through a programme of total quality management and continuous quality improvement. This is an all-pervading function involving employees, their training, development, and motivation. Customer focus is the prime requirement for this quality management programme. Leadership and commitment of the top hospital management to this cause is essential for this programme to succeed. The hospital administration has to take an active part in and be a driving force for the programme. The quality management is a planned and continuous activity for an organisation. The top management must fully support actively the quality management programme. It should not degenerate into a lip service and genuine interest, active support and participation by the top management of the hospital will be necessary

5.3 Role Towards Community

A hospital is meant to serve the health needs of the community in which it is located. A hospital is a part of total health care delivery system providing comprehensive healthcare. A large number of people and their families get directly or indirectly involved with the hospital physically, emotionally and financially either as a patient, as a supplier of goods and services or simply may be as visitors. A hospital must be able to fulfil the needs and aspiration of people. The hospital administration has to fulfil this obligation and responsibility in shaping the hospital as a truly community hospital by orienting its services towards that end.

5.3.1 Obtaining Community Participation

In order to fulfil its role effectively full community participation is essential. Without active support from the community no hospital can survive. The hospital needs moral and financial support from the community to be able to discharge its duties properly. The hospital administration has to inform the community about this need. The hospital administration has to take a positive interest in the improvement of the community pertaining to health-related issues. His support and leadership towards this cause is quite necessary.

5.3.2 Integrating the Hospital with other Health Care Institutions

Health of the community cannot be viewed as fragmented efforts being undertaken by the various agencies. Health care delivery is a continuum-in which hospital occupies a very prominent and most visible part. In a community there will be other health care institutions,

public health laboratories, private practitioners and others. A hospital occupies a pivotal position and has a leadership role to perform. It is the responsibility of the hospital administration to integrate the services of these isolated agencies and coordinate their efforts for providing a comprehensive and need based health care with universal coverage, accessibility and affordability.

5.3.3 Supporting Primary Care

Primary care is the method by which health need of the community can be met to a large extent. Primary care is basically provided mostly by the community-based health care institutions other than the hospital. But without the active support of the hospital primary care cannot succeed. Hospital is a repository of all state-of-the-art medical knowledge. Hospital can provide necessary expertise to the other' care providing organisations. Hospital calls also guide and direct these institutions regarding the best way to deliver medical care. The hospital administration, apart from providing the technical expertise, can also support primary care activity of other institutions by looking after their need of manpower equipment and supplies.

5.3.4 Providing Extramural Services

while defining the hospital has mentioned that the services of the hospital reach out to the community in their home environment. In fulfilling this commitment, the hospitals do hold various kinds of medical camps. Eye camps organised by the hospitals are common examples. In addition to these medical camps, the hospital can organize domiciliary care, immunization camps and the like. The hospital must have a positive outlook towards these extramural services so that necessary resources can be provided for these purposes.

5.4 Skills of A Hospital Administrator

Hospital administration is a challenging profession. It must have appreciated the formidable and diverse functions that a hospital administrator is called upon to perform. A typical hospital administrator in India is a medical graduate with a postgraduate degree in hospital administration. Currently about six medical institutions are offering doctoral courses, which is at par with any other postgraduate medical qualification and is recognized by the Medical Council of India. In addition, many management and other institutions are also offering postgraduate courses for graduates from all other streams. The All-India Council of Technical Education recognizes these courses. In some countries, particularly in USA, a hospital administrator is typically a non-medical person. According to Dr. J. R. McGibony,

Hospital Consultant, this was due primarily to the shortage of doctors. The training involves inclusion of subject matters like social-behavioural and management sciences, public health, principles of medical care and application of administrative concepts and skills in health care organisations. Whatever be the feeder channel for the profession of hospital administration, certain attributes are necessary for efficient performance of their job. These are a successful past record of efficient and effective management, ability to direct the subordinates to achieve the organisational objectives, a high degree of conceptual skills, mental robustness, plenty of tact and ability to withstand adverse criticism. The most important skills are summarized as under:

a) Leadership skills: A hospital administrator must have leadership skill. He should be able to influence people to act with zeal and enthusiasm to achieve organisational goal.

b) Interpersonal skills: Hospital is a labour-intensive organisation. A congenial environment is conducive of productivity, satisfaction and happiness. A hospital administrator must have good interpersonal skill to create such an environment. At the core of interpersonal relationship is communication and empathy.

c) Conflict management skills: In an organisation like a hospital where diversity of objectives is the norms, quite often conflict situation arises. It is argued that a certain level of conflict is essential for any organisation to remain vibrant, dynamic and responsive. This is functional conflict and can be utilized by managers to the benefit of the organisation. A hospital administrator must be able to manage conflict well and should not allow it to become dysfunctional.

d) Negotiating skill: A hospital administrator is called upon to negotiate quite often on various matters pertaining to his organisation. Negotiation means a process in which two or more parties exchange goods or services and to arrive at a common meeting point. It has to be carried out in an atmosphere of cordiality and at the end both the parties must have a feeling of winning. In a hospital negotiation is required to be done with the suppliers of various materials. A collective bargaining is also a form of negotiation between management and the workers union.

5.5 Types of Hospital Administrators

a) Clinical Manager

As the managers of the day-to-day organization of clinical areas, clinical managers play a critical role in hospital administration.

Clinical managers often have experience working in a specific field of healthcare before moving up to a management position after earning a hospital administration degree. They may be responsible for overseeing the unit's budget, scheduling of patients or staff members, working to improve processes, and performing employee reviews.

b) Health Information Manager

Health information managers are necessary for the hospital setting due to the large numbers of patients that visit the premises every day.

Whether patients come to the hospital for an emergency, surgery, an admission or merely a routine visit, their personal and health information needs to be managed appropriately to ensure their privacy and security.

Health information managers are knowledgeable about the Health Insurance Portability and Accountability Act (HIPAA), which mandates that patients' records and information be kept private and secure.

They often work closely with IT personnel to maintain security and review incidents where patient information is disclosed in ways that don't follow protocol.

c) Human Resources - Specialist

The human resources department plays a vital role in maintaining an organization's operation. HR manages staffing - such as hiring new employees and managing employee training, conflicts, and discipline. The HR department also helps develop an organization's culture.

Those with experience in HR can work their way up to a management position within the department, or even to the director's position. The director is responsible for overseeing the workings of the department as a whole, working primarily with the managers on the middle level.

5.6 Summary

In the day-to-day operational management of the hospital, he has to manage the resources of the hospital to produce a high-quality medical care service. The resource the hospital administrator has to manage includes personnel, materials, finance and information. His other routine job includes public relation activities, maintaining relationship with medical staff, risk management, marketing management and maintaining an ethical environment. He

also has to abide by the various statutory and legal provisions for functioning of the hospital. Total quality management and continuous quality improvement calls for a commitment from the top level of hospital administration on an ongoing basis. In his role towards community, supporting primary care and provisioning of extramural services calls for a positive attitude on his part. Towards the end to have learnt that a hospital administrator has to have attributes of a highly skilled professional qualification and good past track record. The major skills required are leadership skill, interpersonal skill, conflict resolution skill and negotiating skill.

5.7 Key words

Patient's Clinical Needs -The primary reason of hospitalization of a patient is to get treated or to get certain diagnostic tests performed. The patients will always like to get these things done at the earliest without any delay.

Patient Education -The patients are usually lay persons. They are ignorant about the high technicalities of modern-day medical science. They need to be educated regarding various aspects of the medical care given to them.

Patient's Emotional Needs- A patient is usually under great emotional stress in hospital. Sadness, loneliness, uncertainty, fear, helplessness, despair all contribute to emotional stress of the patients

Policies- Policies are general guidelines for decision making. In an organisation policy determines the perimeters within which the employees have to take their decision

Procedures: Procedures are customary way of doing things in an organisation. It guides the future activities

5.8 Self-Assessment Questions

1. What are the attributes to be a successful hospital administrator
2. List the four important skills of a Hospital Administrator.

5.9 Suggested Readings

- 1 C. M. Francis & Mario C. de Souza (2025). *Hospital Administration*. Jaypee Brothers Medical Publishers, 3rd Revised Reprint, ISBN 9788171797219
- 2 B. M. Sakharkar (2024). *Principles of Hospital Administration and Planning*. Jaypee Brothers Medical Publishers, 2nd Edition Reprint, ISBN 9788184486322

- 3 Joydeep Das Gupta (2023). *Hospital Administration and Management: A Comprehensive Guide*. Jaypee Brothers Medical Publishers, 3rd Edition, 270 pages, ISBN 9789356960800
- 4 Nikita Sabherwal (2023). *Understanding Hospital Administration Dynamics as per the NMC Competency Based Curriculum*. Ahuja Publishing House, Paperback, ISBN 9789380316918
- 5 Dinesh Bhatia, Prabhat K. Chaudhari, Bhupinder Chaudhary, Sushman Sharma & Kunaal Dhingra (2023). *A Guide to Hospital Administration and Planning*. Springer Singapore, 1st edition, Hard-cover and eBook, ISBN (hardcover) 978-981-19-6691-0

LESSON -6**PROFESSIONAL BODIES OF HOSPITAL
ADMINISTRATION****Learning Objectives**

- To study the Professional Bodies of Hospital Administration
- To learn the Code of Ethics for Hospital Administration
- To Understand the Hospital Responsibilities

Structure

- 6.0 Introduction
- 6.1 Professional Bodies of Hospital Administration
- 6.2 Code of Ethics for Hospital Administration
- 6.3 Medical/Professional Acts
- 6.4 Consumer Protection Act
- 6.5 Summary of Indian Medical Council list of offence and professional misconduct
- 6.6 Hospital Responsibilities
- 6.7 Summary
- 6.8 Key words
- 6.9 Self-Assessment Questions
- 6.10 Suggested Readings

6.0 Introduction

For more than 85 years, ACHE has been focused on advancing leaders in the field of healthcare management. Members are automatically enrolled in one of the 77 regional chapters, which offer education programs, career advancement resources, and volunteer opportunities to get more involved as a healthcare leader in the local community. ACHE produces the annual Congress on Healthcare Leadership, where more than 4,000 participants gather to hear about ground breaking research, policy updates, and innovations presented by their peers. This national organization is also among the largest publishers of books and journals on health services management, including textbooks and the magazine Healthcare Executive. ACHE is committed to educating, engaging, and inspiring its members as they lead within hospitals, healthcare organizations, and health systems.

6.1 Professional Bodies of Hospital Administration

1. VCUSAHS has recently launched our own student chapter of ACHE: the Healthcare Executive Student Society (HESS).

Student-led with guidance by a faculty mentor, HESS-USA promotes opportunities for students to develop and practice leadership skills in academic, healthcare, and community settings. We plan to send one member per year to the Congress on Healthcare Leadership

2. Financial managers

The American Association of Healthcare Administrative Management (AAHAM)

Founded in 1968, AAHAM provides information, education, and advocacy for healthcare professionals involved in the revenue cycle, including medical records and billing. This professional association hosts an annual conference and administers certification exams in the areas of executive leadership, revenue management, and compliance. Through AAHAM's more than 30 local chapters, members have the chance to network with others in their area and discuss local challenges and resources. AAHAM publishes the quarterly Journal of Healthcare Administrative Management, as well as Legislative Currents, an online journal about legislative issues affecting healthcare revenue management. It also manages an online job bank and membership directory. Members become eligible for certifications, get invited to special events, and can benefit from AAHAM's scholarship and awards program.

3. Information managers

American Health Information Management Association (AHIMA)

With more than 103,000 members and credential holders, AHIMA is the premier national association of health information management (HIM) professionals. AHIMA advocates for the HIM profession, serves as a thought leader in the world of health informatics, and has led the development of information governance principles within healthcare. AHIMA's training seminars and summits are a resource for current information and training in coding, privacy, security, data analytics, and documentation. Member benefits include earning AHIMA credentials, attending association events, and networking with other HIM professionals.

4. Finance and operations professionals

The Healthcare Financial Management Association (HFMA)

HFMA is a professional association for finance, informatics, and operations professionals working in hospitals, insurance companies, physician practices, and other healthcare settings. Members gain access to conferences, seminars, eLearning courses, certification opportunities, and more. Full-time faculty and students are eligible for Academic memberships, which provide access to the same resources that Professional memberships offers—but at discounted prices. HFMA helps its community of 43,000 professionals understand and influence industry changes.

Professional certifications include the Certified Revenue Cycle Representative and the Certified Specialist in Business Intelligence. USAHS has partnered with HFMA to bring these certification opportunities to our students. The Certified Revenue Cycle Representative (CRCR) is available for all students in our Master of Health Administration program, while the Certified Specialist in Business Intelligence (CSBI) is available for students in the Business Intelligence specialization.

5. Black healthcare executives

National Association of Health Services Executives (NAHSE)

The National Association of Health Services Executives (NAHSE) is a non-profit association of Black healthcare executives founded in 1968 to promote the advancement and development of Black healthcare leaders and to elevate the quality of healthcare services rendered to diverse and underserved communities. NAHSE members are executives from over 45 states who represent more than 500 companies, including ~10 of the largest U.S. health systems.

NAHSE hosts an annual conference, as well as professional programs/workshops, educational programs, a job bank, and a mentoring program. It offers scholarships and fellowship opportunities and participates in health advocacy on behalf of diverse populations.

6. Patient access professionals

The National Association of Healthcare Access Management (NAHAM)

NAHAM is the association for patient access professionals, with a job board, a quarterly journal, education with certification options, and webinars that keep members current on

technology and news in the field. At NAHAM's Annual Conference and through its Access Forum and listserv, members can network and exchange ideas with their peers from diverse settings across the country. They can take advantage of NAHAM Access Keys, a tool that helps professionals monitor their healthcare organization's performance across six patient access domains. NAHAM Toolkits are helpful resources about topics such as patient experience, patient identity integrity, and more.

7. Executive assistants

Association for Healthcare Administrative Professionals (AHCAP)

AHCAP is a professional organization for executive assistants, administrative assistants, and other staff members who support our nation's healthcare leaders. Its vision is for administrative professionals to be recognized as leaders who support and strengthen the delivery of healthcare. AHCAP advances the professional development of health administrators through conferences, education, advocacy, and networking.

8. Insurance professionals

Health Care Administrators Association (HCAA)

HCAA's mission is to support third-party administrators (TPAs) and the self-funded health insurance industry through state and federal lobbying efforts. It supports the education, networking, and advocacy needs of TPAs, stop-loss insurance carriers, managing general underwriters, audit firms, pharmacy benefit managers, brokers/agents, human resource managers, plan sponsors, and related professionals. HCAA holds two conferences each year: the Executive Forum and the TPA Summit.

The increasing number of medicolegal cases has made it necessary for hospitals and medical administrators to become aware of the medicolegal aspects to minimize civil and criminal litigation and ensure quality of medical care. In India, lawyers as yet have very little training and exposure in the complex issues involved in medical care. Therefore, health care personnel must understand the basic medico legal issues involved in personal injury, negligence, malpractice, medical frauds, professional incompetency, ethical issues in human experimentation, defensive medicine, organ transplants, reproduction medicine, sex determination and genetic counselling. Then only they can do the right things, and protect themselves from frivolous litigations.

Government hospitals in the past were considered to represent the sovereign power, and under the dictum “sovereign can do no wrong” were considered immune from ‘tort’ liability in respect of their employees who were considered to be engaged in official acts. The principle of sovereignty has now been abandoned everywhere except in India, where it is still on the statute book. However, it is noteworthy that the courts have now started talking more humanistic views in favour of plaintiffs even in cases involving sovereign immunity.

There is an increasing awareness among the public about the duties and obligations of medical practitioners (as individuals) as well as of the hospitals where they work.

Many recent cases such as electrocution of the patient on the operation table in a government hospital, operating in wrong eye in a government hospital, death in hospital due to denial of bed in ICU, irreparable damage to the knee joint as a result of surgical operations, etc. have refocused the attention of medical administrators to the problem.

In a point of view about the hospitals, people feel that a doctor can get away with it because he has the protection of an institution. A patient has to suffer because he does not know his legal rights and is not aware of legal remedies. Nobody ever tells the patient his rights and nobody guarantees against a doctor’s carelessness which may cause him physical injury for ever, or even death. There are a larger number of nursing homes which have changed their boards to ‘Hospitals’. Many of them are unregistered. A large number of hospitals are being established by businessmen and political leaders. There is hardly any system of pricing, even for common ailments, the price depends upon the customer—how much the patient can pay or how much one can extract out of him. In the process of generating additional revenue, large number of hospitals have purchased and installed modern technology for diagnosis and treatment, and the patients are pressurised for additional diagnostic tests and procedures.

The consumer cannot think rationally during an episode of sickness and, therefore, is subjected to these additional tests. A large proportion of the population is poor and illiterate, ignorant about their rights and responsibilities, and therefore, at the mercy of the doctors and of the hospitals.

The hospital administration has an obligation to have a clear understanding of its ethical and legal responsibilities. Hospital management is responsible for the policies, for maintaining a safe hospital, physical facilities and services. In addition, the hospital is also governed by regulations of the local government authorities in respect of building codes, safety and fire regulations and sanitation arrangements.

Being an integral part of the social system, it has to be subject to all laws of the land. The administration should take due care in establishing policies for selection and appointment of members of medical staff, because it is through the actions of the staff that most legal problems arise. There should also be an understanding of the management's civil and criminal liability.

Responsibility for safety from explosive and inflammable anaesthetic gases and chemicals, machinery, steam and even damages from falls on slippery floors is that of the administration.

6.2 CODES OF ETHICS FOR HOSPITAL ADMINISTRATION

Industrial Disputes Act, 1948 Hospitals were included under the term 'industry'. The industrial dispute act is applicable where the number of employees is 50 or more and lays down the procedure to deal with disputes arising in an industrial establishment. A 1982 amendment to the act exempted hospitals and dispensaries, among others, from the preview of the act, but this provision was kept in abeyance by an amendment in 1984. The government has now a comprehensive legislation under its active consideration to deal with industrial disputes. The government has framed model standing orders under this act which are required to be followed by all institutions covered by the act.

6.2.1 Minimum Wages Act, 1948

Under this act minimum wages are fixed for different categories of workers.

6.2.2 Employees Provident Fund Act

The hospital as employer is required to recover from its employees at prescribed rates, contribute an equal amount as employers' share and credit the fund regularly with the government. It is applicable to hospitals if the number of employees is more than 20. Noncompliance is punishable by imprisonment.

6.2.3 Payment of Bonus Act, 1956

The act is applicable to hospitals with 40 or more employees. Charitable or not-for-profit hospitals are exempt from this act.

6.2.4 Payment of Gratuity Act, 1972

Gratuity is payable to employees @ 15 day's pay for every completed year of service at the time of his or her superannuation or death. This act is applicable where there are 10 or

more workers and in respect of worker who have completed 5 years of service (or at least one year in case of death).

6.2.5 Payment of Wages Act, 1936

Statement of wages showing all details is required to be given to the employee, wages must be paid during the first seven days of the month, and only authorised deductions can be made from the wages.

6.2.6 Employees State Insurance Act, 1948

Employees State Insurance Act, 1948 is a measure of social and health insurance for which it provides monetary and medical benefits to industrial employees in case of sickness, maternity and employment related injury. The hospital as employer has to contribute 4 per cent of the total wage bill to the scheme.

If the hospital is providing complete and free treatment to the employees and their dependents, the provisions of ESI will not be applicable.

6.3 Medical/Professional Acts

Applicable To Hospitals

Indian Medical Council Act, 1933 Indian Medical Council Act, 1933 lays down the code of ethics for medical practitioners and regulates medical education. State Medical Councils established under the act have the same function in their respective states except that recognition of teaching hospitals is centrally governed by the IMC act.

Indian Nursing Council Act, 1947 Indian Nursing Council act, 1947 act lays down the educational standards and requirements for registration of nurses.

The Pharmacy Act, 1948 The Pharmacy Act, 1948 deals with the establishment of Pharmacies and drug stores and with the profession of pharmacists. A hospital has to acquire a drug licence if it sells drugs across the counter, where only registered pharmacist can be employed for dispensing of drugs.

6.3.1 Births and Deaths and Marriages Registration Act

Births and deaths and marriages registration act lays down the responsibilities of the hospital regarding informing births and deaths in hospitals. All births and deaths taking place

in the hospital are to be registered under the act. They are to be notified immediately to the local municipal authority and the Registrar's office.

6.4 CONSUMER PROTECTION ACT (CPA)

Till recently, all cases of disputes regarding negligence on the part of doctors or hospitals were raised in a court of law. It was filed either under the law of torts to claim damages or under other relevant sections (304 A, 336, 337 and 338) of the IPC, to get the negligent punished. However, after the introduction of the Consumer Protection Act, a drastic change has taken place and litigants are preferring claims through the District, State or National forums. The two main reasons for this are that hardly any costs are involved in this procedure, and the case is decided in a short span of 3 to 4 months.

A Primer on Consumer Protection Act Consumer Protection Act (CPA in short) was enacted by Parliament in December 1986 and came into force on 1 September, 1987. The aim of act is to provide a simple, speedy and inexpensive redressal for consumer grievances relating to defective goods, deficient services and unfair trade practices. A 1992 landmark ruling by the National Consumer Disputes Redressal Commission in the case of Vasantha Nair vs Cosmopolitan Hospital has already established that medical services can be tried under CPA.

6.4.1 Consumer

Consumer means any person who hires any services for a consideration, and includes any beneficiary of such services other than the person who hires the services, when such services are availed of with the approval of the first mentioned person. The status of a patient is that of a consumer, because the patient pays for the services or has the liability to pay which may be by full down payment, in instalments or under any deferred payment system. If a person has received free services without paying for the same, he cannot be called a consumer. This is why government hospitals providing services without any charges are outside the preview of the Act.

A person who avails himself of the facility of a government hospital is not a consumer because the facility offered in government hospitals is not service hired for a consideration. For deficiency of service in government hospitals, the aggrieved person will have to file a claim in civil court. If the conduct of the hospital doctor amounts to criminal negligence, the patient can cause to prosecute the doctor in criminal court.

6.4.2 Deficiency

Deficiency is any fault, imperfection, shortcoming or inadequacy in the quality, nature and manner of performance in pursuance of a contract or otherwise in relation to the service.

Service

Service means service of any description, but excludes free service and personal service. Treatment in a hospital (excluding government hospitals) on payment amounts to hiring of service for a consideration. Therefore, a complaint would lie if there is deficiency in service rendered by a member of the medical profession.

Definition of “service” excludes from its scope service under a contract of personal service. Strictly speaking, service rendered by a doctor is not essentially personal service. The high court of Kerala had ruled (Vasantha P Nair vs Cosmopolitan Hospital 1991), “There is in a general sense a personal element in the medical officer’s service to their clients, but we do not think that they can be called personal service...It will be incorrect, infelicitous and crude to describe it as personal service. Personal service stems from a master-and-servant relationship...It is wrong to call the service rendered by a lawyer or doctor to his or her clients as personal service”.

Doctors have tried to take shelter in the past under the concept of personal service, which is no more tenable.

6.4.3 Time Limitation

A claim for compensation under CPA must be filed at a Forum within three years of the subject matter of the complaint (e.g. death) having arisen.

If an amendment to the Act, presently under consideration of the government is passed, this period is likely to be raised to one year.

At the District Forum, a case has to be heard within three months of being filed.

6.4.4 Consumer Disputes Redressal Levels

Under a three-tier redressal machinery, consumer disputes redressal forums have been established at all the district levels and state capitals. The National Consumer Disputes

6.4.5 Redressal Commission is located at New Delhi.

The National Commission deals with compensation claims above Rs. 30 lakhs. The largest medical consumer compensation claim is Rs. 3 crores by a person from Amritsar for the death of his son after multiple surgeries, allegedly unnecessary. The largest consumer compensation received so far is Rs. 17.35 lakh by international table tennis player V Chandrasekhar for his case against Apollo Hospital, Chennai for disabilities suffered after a negligent operation. The State Commission deals with disputes where compensation claims above Rs. 5 lakhs are preferred. District forum deals with compensation claims up to Rs. 5 lakhs.

6.4.6 Powers of Redressal Forum

Redressal forums have the same judicial powers as a civil court. It means it can summon and enforce the attendance of witnesses and to produce documents.

Medical Malpractice cases which could take over a decade in the past, are now decided in months by the redressal forums.

6.4.7 Epilogue

The medical profession got a severe jolt when in April 1992 the National Consumer Redressal Commission, on appeal from Kerala State Redressal Commission, decided that the activity of providing medical assistance for payment carried out by hospitals and members of medical profession falls within the scope of the expression “service” defined in Consumer Protection Act 1986 and that in the event of any deficiency in the performance of such service the aggrieved party can invoke the remedies provided under the Act.

A body of medical men feel that when an individual errs, he should be prepared to face the consequence that follow, irrespective of what category and in what capacity he is discharging his duty at the time, and a doctor of any discipline working in any category or capacity is not, and cannot, be an exception to this principle.

The key grievance of the medical fraternity is that there is no provision for having a medical technical expert on the Forums to provide technically sound opinion on the doctor’s/ hospital’s performance. An amendment to the Act has now made a provision for inclusion of an independent expert.

6.4.8 Patients' Bill of Rights

The government is concerned about the deteriorating services in medical care both in private nursing homes and public hospitals. Consumer organisations are also pressing for a charter of right of consumers of medical services.

The Indian Medical Association would also welcome a citizen charter for patients' welfare on the lines of the similar charter in the United States.

A subcommittee of the central consumer council is going into the various shortcomings as existing in both public and private medical care and to prepare a charter of patients' rights. Indian Medical Council has a member on the subcommittee. The charter will serve as the guiding document for considering cases by courts, besides being a reminder to doctors and hospitals of their responsibilities and obligations. The draft of the charter of patients' rights being finalised by this committee is being modelled on the

6.5 SUMMARY OF THE INDIAN MEDICAL COUNCIL'S LIST OF OFFENCES AND PROFESSIONAL MISCONDUCT

The following is a list of offences and professional misconducts that may lead to suspension of the doctor's name for a specific period or permanently strike his name off the rolls if his conduct is found wanting professionally.

1. Adultery or improper conduct or association with a patient or member of the family.
2. Issuing false certificates, reports and other documents—birth, death, sickness for leaves.
3. Conviction by Court of Law for offences involving moral factors.
4. Selling of scheduled poisons to the public under cover of his own qualification.
5. Performing or enabling an unqualified person to perform an abortion or any illegal operation for which there is no medical, surgical or psychological indication.
6. Issuing certificates of efficiency in modern medicine to unqualified or nonmedical persons.
7. Advertisement of the services or the institution run by the physician.
8. Using unusually large signboards—other than name, qualifications and speciality or fixing signboards at places other than that of residence or practice.
9. Disclosing secrets of a patient.

10. Refusal on religious grounds to give assistance or conduct operations of sterility/birth control unless he is not qualified or is incompetent.
11. Performing operations without consent.
12. In case of a hospital/nursing home, the ultimate responsibility rests on him.
13. Fees should not be publicly exhibited but it can be kept in the physician's waiting room or consulting room.
14. Will not use agents for procuring business.
15. Should not claim to be a specialist unless has special qualifications and enough experience.

6.6 HOSPITAL'S RESPONSIBILITIES

6.6.1 Consent for Medical Examination,

Treatment and Autopsy

Consent is implicit in the case of patients who submit to the doctor, and the absence of consent must be made out by the patient alleging it. Written consent should be obtained for surgical operations and special procedures. The same applies to autopsy except in medicolegal cases where the hospital may be obliged to carry out medicolegal postmortem examination on orders of the coroner or other court having jurisdiction.

It is a criminal offence as per Indian Penal Code to operate upon a person, or to administer drugs to a person without his or her consent. Valid consent cannot be given:

1. By a child under 12 years of age
2. By a person of unsound mind, or a person who is intoxicated and is therefore unable to understand the nature and consequences of that to which he has given consent.
3. Under fear of injury or under misconception of fear if the doctor knows that consent was given in consequence of such fear or misconception. The general belief of many doctors appears to be that patients are unable to make a reasoned choice because they cannot appreciate the intricacies of medical science, and therefore it is not possible to get "informed consent". This often results taking a paternalistic stand that "doctor knows best". This view assumes that the consent is implied in the very fact that the patients has sought the expertise of the doctor.

On the other hand, a study on obtaining consent showed that a vast majority of patients gave a clear choice about participation in drug trials based on adequate information supplied, the decision making directly related to the amount of information provided. The choice of decision did not depend on social or educational background.

The paramount question is: can a doctor withhold treatment if there is no informed consent, and what if the patient is admitted in a critical condition? In such a situation the apparent conflict between the moral duty of the doctor to save life and the right of the patient to determine what shall be done to his body must be resolved purely on ethical considerations, relegating the purely legal view to the background.

6.6.2 The Medical Service

The legal privileges and limitations of the medical staff should be known to all members of the staff. The legal rights, privileges and limitations, and the do's and don't's in these matters should be laid down in writing. Accepted diagnostic and therapeutic procedures practised in good faith by the medical staff are always upheld in law. However, hospital must have exercised care in selection of the staff who must be qualified and competent, with valid registration with the State medical council or nursing council as the case may be, or with appropriate technical qualification in case of biomedical technicians and paramedical staff.

6.6.3 Refusal of Treatment

Every doctor, whether at a government hospital or otherwise, has the professional obligation to extend his service with due expertise for preserving life. No law or State action can intervene to avoid/delay the discharge of the paramount obligation cast upon members of the medical profession. No law or procedure can insist on documentary formalities to be completed before a doctor could render medical aid. All hospitals and medical institutes should provide immediate aid to all the cases, irrespective of the fact that they are medicolegal cases or otherwise (Supreme Court, 1989).

The Medical Council of India has also pointed out that there is no provision in any laws which prevented doctors from attending to seriously injured persons and accident cases before the arrival of police, or registering a case, and other formalities.

While in the past it was left to the moral discretion of the doctor to treat on humanitarian consideration, today he is legally bound to treat to save life. If not, action can be brought against him.

6.6.4 Defective Equipment

A hospital is required to provide appropriate equipment and appliances in good working condition for use in diagnosis and treatment of the patients. It is implicit that the hospital's appliances are reasonably fit for their intended use. Periodic inspections, tests and maintenance are part of the functioning of a hospital. The hospital is also obliged to provide devices, such as bedrails, siderails or supports designed to prevent injury to patients who are in a weakened condition.

6.6.5 Negligent Monitoring

A hospital is under obligation to monitor the condition of all patients continuously and its failure to do so is liable to lead to the hospital management being held responsible under the doctrine of vicarious liability. Proper recording of patients history, and question about his or her drug allergy should be asked. Liability may arise when failure to monitor postoperative cases results in not detecting the deterioration in patient's condition in time, e.g. internal haemorrhage or an adverse blood transfusion reaction. Monitoring would not only require the hospital and its nursing staff to recognise developing complications but would also entail appropriate emergency action to supplement care given by the attending doctor.

6.6.6 Observation of Patients

Unattended patient's falls from bed, stretcher or operation table is a frequent cause of accidental injuries. Siderails and restraint straps and special care when moving patients to and from the operating table must be used. Constant vigil is essential to safeguard patients unable to protect themselves. If a patient receives an injury while being unconscious, such as a brachial nerve palsy from hyperextension of an arm on the arm board, negligence on the part of one or all team members of the operating team may have to be disproved in court.

6.6.7 Drug Handling

The process of ordering, storage and distribution of drugs is the direct responsibility of hospital management, while as administration of drugs to patients is that of the medical and nursing staff. Therefore, the hospital assumes a dual responsibility for failure of an employee to follow standard procedure when administering drugs and a vicarious liability of the hospital administration. The liability arises from improper handling of drug, missed dose, drug administered to wrong patient, improper labelling, use of date expired drugs, and unnecessary use of drugs.

6.6.8 Drug Trials

Research for advancement of medical science by developing better therapeutic procedures and new drugs is permitted, because much of what is research or trial today becomes standard therapy tomorrow.

In hospitals where investigational drugs are to be used, or other drug trials to be carried out, it should be done preferably under the aegis of a “Research Committee” who may lay down policy and approve the method of any study project. The consent of patients participating in such a trial should be an “informed consent” which means that the patient should be made aware of the pros and cons of the drug trial, its aim and objectives and possible side effects, however remote. In cases of double-blind studies where the patients as well as the staff is not aware of which drug is being given at a particular time, the code of double blind study should be immediately available to the attending physician to be able to counteract any untoward reactions, in emergencies.

Presently, no national guidelines or laws are available in India to regulate the code of conduct of medical research.

In the event of need, public opinion and the courts would have to draw upon the sources of international wisdom like the 1964/1975 Declaration of Helsinki (Recommendations of guiding medical doctors in biomedical research) when sitting in judgement.

6.6.9 Negligent Supervision

The degree of patient supervision is governed by the patients’ ability to take responsibility for self-care. Where a patient disregards warnings and instructions, for example, moving out of bed without assistance, the hospital may have no liability for any injury resulting from the patient’s failure to follow instructions. On the other hand, where the hospital is aware that a patient is extremely hostile or otherwise unwilling to comply with regulations, it may be expected to provide a greater degree of surveillance.

6.6.10 Physical Facilities

As in case of equipment and appliances for diagnosis, treatment and care of patients, the hospital is obliged to exercise care in maintaining its physical facilities and premises in a reasonably safe condition. Many of the inpatients are infirm and disabled, which dictates a higher standard of care in the design and maintenance of its premises to meet the special needs

of patients, translated into provision of siderails in corridors and handrails in lavatories and bathrooms to maintain the safety of patients. The hospital is also liable for injuries caused to the visitors by wet slippery floors or damaged stairs.

6.6.11 Hospital Infection

Although hospital infection is known to occur in all hospitals, its legal implications are only recent. The hospital has an obligation to keep the premises hygienic and to follow policies and procedures that are aimed at preventing further harm to the patient through acquiring some infections, with which he or she did not come to the hospital in the first place. Infections caused by improperly sterilised equipment, appliances or instruments may result in liability, so also from generally insanitary conditions in the hospital premises if the causal relationship between them is established. The hospital is also liable for infections contracted by its personnel (e.g., tuberculosis, serum hepatitis, encephalitis) during the course of their duty.

6.6.12 Blood Bank Service

Transfusion reactions do occur but irreversible reaction resulting in death after blood transfusion in hospital may be the result of negligence. Blood bank service contains a high potential risk for injury to patients and a high-risk of legal liability for the hospital. Such risks include acceptance of a donor, extraction of blood, storage, grouping and crossmatching, and transfusion to the patient. All these procedures may lead to liability if not performed in accordance with safe and universally accepted standards. However, the hospital is not liable for the quality of the blood when it receives blood from a recognised blood bank.

6.6.13 Unlawful Detention

Unlawful restraint of an individual's personal liberty, i.e. unlawful detention against the patient's wishes constitutes false imprisonment, even without use of actual physical force, except in cases when it can be proved that in not doing so there is a danger to their own life or to the life or property of others. Detaining a patient until his or her bills are paid constitutes unlawful detention. When patients insist on leaving the hospital before completion of treatment, it must be recorded in the medical documents and discharge should be recorded as "discharge against medical advice" if the discharge is against the advice of the treating physician.

6.6.14 Invasion of Privacy

Disregard for a patient's right to personal privacy, especially if patients are unable to protect themselves because of unconsciousness, immobility or disability, is legally actionable. Divulging information to non-authorised sources from the patients' medical record, committing unwarranted intrusion into patient's personal affairs, taking pictures of patients without their knowledge for future use—all these constitute invasion of privacy. Releasing information to the media/ press on patient's condition, especially public figures, may be of interest to the public. But it must be guarded and released in a format that does not invade the patient's right of privacy. The hospital staff should also be guarded in their interviews with the press to avoid injury to the reputation of the patients.

6.6.15 Anaesthesia

Every death in operation theatre either due to natural cause or otherwise is to be reported by the hospital authorities to the police. Anaesthesia, if given without proper and valid consent is regarded as assault and battery, except in grave life-threatening emergencies. A patient who is unable to understand the nature, the purpose and the risk of operation is legally incompetent to give valid consent. It is always safe and better to hold an inquest, if the patient dies after anaesthesia without regaining consciousness.

6.6.16 Operating Room Procedure

Operating room policies and procedures should be established as a protection both of the employees and patient. Identification of the patient should be done by one more person besides the surgeon. The surgeon should see the patient before anaesthesia is administered. Protection of personal property, i.e. removal of valuables from the possession of the patient is normally the responsibility of the ward. However, some responsible person—perhaps the circulating nurse—checks the patient for contact lenses or eyeglasses, dentures, wristwatch, rings or religious medals.

Some of them constitute a hazard for the anaesthetised patient.

A patient on the operating tables must never be left unattended. Constant vigil is essential to safeguard patients under anaesthesia. Operating room team members must apply the principles of asepsis at all times.

The responsibility for counting all sponges, needles and instruments before operation and at the time of closure rests with the scrub nurse. The surgeon should take field count before closure. A hospital that has not established counting procedures would be in a difficult legal position.

Faulty equipment must never be used inside the operating room. A burn may occur from the use of hot instrument, or electric burn due to short-circuiting of electrosurgical unit. Correct administration of drugs on the operating table is ensured by checking drug by two nurses or by a nurse and anaesthesiologist.

All tissues removed from a patient is sent to the laboratory. Specimens labelled incorrectly lead to critical complications for the patients. Loss of a specimen can prevent determination of a diagnosis or definitive therapy. Foreign body removed from the patient may have a medicolegal significance. Receipt for it from the person authorised to collect it protects the hospital.

The patient entrusts his or her life to others when undergoing a surgical operation; the operating room team must act with utmost vigilance.

Disclosing of Information to Patients

The patient has a right to be adequately informed about his or her illness or condition. However, what patients want to now may not be congruent with what physicians routinely disclose in the process of obtaining consent. Although there is a very little understanding about what average patients desire or need to know before consenting to treatment of any kind, patients appear to prefer detailed disclosure.

Doctors disclose only selected information to patients, because of medical ethics, favouring discretion over a firm duty to tell the truth to the patient. This is also based on the doctrine of therapeutic privileges—to withhold relevant information from patients if it is reasonable to predict that such information may harm the patient.

Terminal Illness

Many legal, ethical and social challenges are presented by major scientific medical breakthroughs. Medicine has also taught doctors that the knowledge on incurability of a disease should not make the physician withdraw treatment or care as long as patient breathes.

Recent thinking, is that the withdrawal of treatment of a patient whose condition is moribund is justified. Prolonging life with the help of the machines and other heroic measures in case of the terminally ill is now being questioned more and more. If death is imminent, it is not considered improper for the physician to do nothing much except to relieve pain.

The concept of brain death is quite clear. When the brain is dead and beyond repair, there is no point in keeping the heart and circulation going with expensive medical technology, because the person cannot exist when off the respirator. And, on or off the machine, he can never think nor perceive nor may have any function of the brain.

Withholding of Life Support in the Critically III

To withhold life support in a patient who will inevitably die in a few hours or even a few days may seem easy. It may be difficult to withhold support when the time span of terminal illness is more prolonged. Recently after recognising the concept of brain death an act has been passed in Parliament recognising brain death and thereby permitting the withdrawal of life support in patients who are brain dead. This ends an era of utter helplessness and mental agony for the patients' relatives as well as the hospital.

Euthanasia

In the West, a significant number of acutely ill patients who are about to die as also patients with chronic but terminal disease express a desire to be killed or be medically assisted in suicide. Such requests are now also being made in India. A question that is often raised in medical as well as social forums is "should a doctor have the obligation to assist a terminally ill patient or a patient who is at the point of no return to end his life, i.e. to commit suicide?"

Euthanasia includes ill (a) voluntary euthanasia or intentional killing of patients who express a competent, freely made wish to die, because of the pain or suffering they experience. The patient is involved in the decision.

(b) Medically assisted suicide, at the patient's insistence and wish. The patient is involved in the decision.

(c) Homicide, following a surrogate decision on a crippled or handicapped patient, or a patient with a poor or hopeless quality of life. In this case, the patient is not, involved in the decision.

It should be understood that withholding or withdrawing treatment when it is certain that such treatment will be of no benefit and when death is inevitable, does not constitute euthanasia, because the intent is not to kill but to prevent prolongation of the act of dying.

Dying Declaration

On many occasions the attending doctor is asked by the police to record a dying declaration of a patient with slender chance of survival. Many dying declarations have been recorded by doctors in hospitals in presence of witnesses and accepted by courts, even though such a declaration should have been recorded only by a magistrate.

However, the Supreme Court has made it fully clear that there is no requirement of law that a dying declaration must necessarily be made by a Magistrate. The Supreme Court has further made it clear that there is no legal requirement of it containing an elaborate and exhaustive statement so as to cover each and every aspect of the incident. What evidentiary value or weight has to be attached to such statement must necessarily depend on the facts and circumstances of each case (Charipalli Shankarrao vs Public Prosecutor, High Court of AP, Hyderabad, January 1995).

From the judgement it is clear that if the presence of a magistrate or other legally authorised representative of the law cannot be ensured in time, a doctor can be called by the patient himself to record his dying declaration. In such a case, the doctor must record the declaration in the presence of at least one independent witness.

Medical Records

Hospital medical records are the property of the hospital and not of the patient or the treating physician. It is implicit that medical records are generated in the course of patients' illness in the hospital without bias or prejudice on the part of doctors and others contributing to them during discharge of their professional duties. Communication between patient and doctor is "privileged communication", and confidential. Therefore, records cannot be divulged without the valid consent of the patient. Those who came into possession of the most intimate, personal information about patients have both a legal and ethical duty not to reveal confidential communication, except when there is an established legal obligation to do so.

In Britain, patient now (from 1991) have a statutory right to obtain access to their health records. In India, according to the current law, the patient has no statutory right of access to his or her medical records, although it may be possible for the solicitors to gain access to them

under court orders. Nevertheless, with efforts to strengthen the position of the consumer protection act and to make it more practicable and fairer in the context of medical services, patients access to medical records is likely to become a statutory right in India also.

The ethics committee of the Indian Medical Council has also veered to the view that medical records, except in medicolegal cases, may be handled over to the patient. While it does not say that the hospital is obliged to do it, the view is significant for its moral and ethical standing.

Right to Life, Sex Determination and Abortion

Every human being has an inherent right to life. But the question is when can one call an entity a human being? What is a “person”? Does it start from the formation of the zygote produced from the time of the union of the sperm and ovum? Is “individuality” reckoned from that moment?

When does the growing embryo or foetus become a “person”? There is nothing wrong or unethical in abortion, as seen by doctors. Medical termination of pregnancy, another name for abortion, is now legal. In abortion, there is the conflict of the right of two “persons”, the mother and the foetus. Is the right of the mother to abort absolute, without consideration of the right of the unborn foetus?

In the Indian social ethos, a female child is considered as a curse in some societies. Prenatal determination of sex is employed for detecting a female foetus with the sole aim of inducing abortion to get rid of it. Such clinics thrived— with open advertisements to boost and perhaps are still thriving although sans advertisements of sex determination.

Many doctors and hospitals have been active partners in the peoples’ tendency to do away with the unborn female child.

A very relevant question has been raised recently. “There is a likelihood of demand for foetal tissues, e.g. foetal brain, in the treatment of Parkinson’s disease. Will it be ethical for doctors and hospitals to participate in the venture of women getting pregnant for later aborting the foetus for monetary consideration?”

These are questions the answers to which may vary from the medical and legal points of view. In the light of the modern knowledge of the science of life, the legally and ethically acceptable view calls for a debate with wider participation.

Professional Negligence

When a patient is admitted in the hospital, a contractual obligation is established (though not written in words) whereby the hospital is obliged to give to the patient all the benefits of its facilities, and staff have to exercise “reasonable skill and care” in looking after him or her. It is in the deviation from these norms of reasonable patient care, established over a period of time, that the law of torts comes into the fore.

It is an unedifying fact that we have no detailed and accurate recorded data on the occurrence and incidence of misadventures in drug administration, diagnostic procedures, and surgical operation in hospitals. In a complex hospital, negligence becomes “error”, scientific detachment and incompetence becomes a “lack of the specialised equipment”. Medicine is still not an exact science in spite of great advances in biomedical sciences. It is imperative for doctors, nurses and paramedical personnel to exhibit utmost precaution, care, judgement and skill in dealing with and treating patients, balancing the relative risk of the disease with the risk involved in the use of drugs, surgery or diagnostic procedures.

A medicolegal problem can be defined as any matter of interest to legal authorities in connection with any aspect of patient care. Therefore, any situation where there is an allegation, confession or suspicion of causes attributing to bodily injury or danger to life, is a medicolegal problem.

Negligence is a tort, i.e. a wrong done by one person to another. Medical negligence has been defined as “a mistake by a medical practitioner which no reasonably competent and careful practitioner who should have committed.” Reasonable Skill

Of every medical practitioner, a nurse and technician, ascertain degree of skill is expected comparable to the average skill of his or her professional brethren of the same standing, and concomitant with the current state of medical knowledge and technique. He can adapt any currently accepted technique of diagnosis and treatment in which he honestly believes. A specialist in a particular field is expected to possess special degree of knowledge and skill of his speciality as against the average skill expected of general practitioner.

A doctor cannot be held negligent simply because something went wrong. He is liable only when he falls below the standard of a reasonable competent practitioner in his field so much so that his conduct is inexcusable.

Reasonable Care

Reasonable care comprises of proper prescribing of medicines in appropriate dosages, correct dispensing, correct use of instruments and appliances, and proper nursing care. Reasonable care would also involve resorting to consultations with senior colleagues or specialists in difficult cases or when in doubt.

“The practitioner must bring to his task a reasonable degree of skill and knowledge, and must exercise a reasonable degree of care. Neither the very highest nor a very low degree of care and competence judged in the light of the particular circumstances of each case is what the law requires. Failure to act in accordance with the standard of reasonably competent medical person at the time...is a perfectly accurate statement, as long as it is remembered that there may be one or more perfectly proper standards, and if a medical person conforms with one of those proper standards, then he is not negligent”.

Professional negligence results from lack of reasonable care and skill or by wilful negligence on the part of a medical practitioner, nurses or a medical technician in the care of a patient so as to lead to his bodily injury or to loss of life. In order to bring a successful claim for compensation against a doctor (or hospital) in a court, the patient must prove negligence. Additionally, the patient must also prove that the negligence of the doctor (or hospital) caused his injury, disability or death. Medical negligence may take following forms.

1. Negligent diagnosis
2. Negligent operation or surgical procedure
3. Negligent recording of patient's complaint
4. Administering a wrong drug or injection
5. Failure to advice a patient of the risk of an operation, if there is such a risk
6. Failure to monitoring patient's condition
7. Improper or malfunctioning equipment
8. Inadequate nursing supervision and staffing
9. Negligent administration of an injection— wrong injection, wrong patient, intravenous instead of intramuscular or vice versa.
10. Leaving a swab or instrument inside patients' body during operation

11. Failure to obtain informed consent from patient
12. Failure to protect a patient from the risk of an infection.

6.7 Summary

Hospital administration is more dynamic than ever, particularly as the implementation of the federal Affordable Care Act continues to prompt an unprecedented number of hospital mergers, acquisitions, and alliances. Changing laws, a complex regulatory environment, and a proliferation of Americans receiving healthcare—or better healthcare—means the value of hospital administrators has never been greater. Hospital administrators coordinate all departments within a healthcare facility to ensure they function as a whole. Their expertise is required to administer, plan, organize, direct, and monitor the outcomes of medical and health services.

6.8 Key words

Consumer- Consumer means any person who hires any services for a consideration, and includes any beneficiary of such services other than the person who hires the services, when such services are availed of with the approval of the first mentioned person

Deficiency- Deficiency is any fault, imperfection, shortcoming or inadequacy in the quality, nature and manner of performance in pursuance of a contract or otherwise in relation to the service.

Medical Records- Hospital medical records are the property of the hospital and not of the patient or the treating physician

Euthanasia- Euthanasia includes ill (a) voluntary euthanasia or intentional killing of patients who express a competent, freely made wish to die, because of the pain or suffering they experience

Anaesthesia

Every death in operation theatre either due to natural cause or otherwise is to be reported by the hospital authorities to the police. Anaesthesia, if given without proper and valid consent is regarded as assault and battery, except in grave life-threatening emergencies.

Hospital Infection

Although hospital infection is known to occur in all hospitals, its legal implications are only recent. The hospital has an obligation to keep the premises hygienic and to follow policies and procedures that are aimed at preventing further harm to the patient through acquiring some infections, with which he or she did not come to the hospital in the first place.

6.9 Self-Assessment Questions

1. Discuss the Professional Bodies of Hospital Administration?
2. Briefly Explain the Code of Ethics for Hospital Administration?
3. Examine the Hospital Responsibilities

6.10 References

1. Sakharkar, B.M., & Jaypee Brothers (Jaypee Digital) (2009) Principles of Hospital Administration and Planning, (Jaypee eBooks), Jaypee Brother Medical Publisher Private Limited.
2. Hospital Administration (2017) DC Joshi and Mamata Joshi Jaypee Brothers Medical Publishers (P) Ltd.; 1st edition
3. Hospital and Healthcare Accreditation (As Per the Guidelines of NABH, NABL, JCI) (2018) Brajkishore Rajoriya Six Sigma Star Healthcare (P) Ltd, New Delhi, India; NABH, NABL, JCI.
4. Performance Improvement in Hospitals and Health Systems: Managing Analytics and Quality in Health care (2018) James R. Langabeer II CRC press Taylor and Francis Group Productivity Press Book.
5. Service Quality for Facilities Management in Hospitals (2016) Low Sui Pheng & Zhu Rui (auth) Low Sui Pheng & Zhu Rui (auth.) Springer Publications
6. Introduction to Health care quality Management (2009) Patrice Spath AUPHA press Washing Ton PC.,

LESSON-7**OVERVIEW OF HOSPITAL SERVICES****Learning objectives**

- To study the Administrative Services
- To understand the Medical and Ancillary Services
- To Learn the Characteristics of Good Medical Record

Structure

7.0 Introduction

7.1 Administrative services

7.2 Medical and Ancillary Services

7.2.1 Patients Need

7.2.2 Physician Need

7.2.3 Institution Need

7.2.4 Health Authorities Need

7.3 Medical Record

7.3.1 characteristics of Good Medical Record

7.3.2 Major functions of Medical Record Department

7.4 Medicolegal Record

7.5 Summary

7.6 Key words

7.7 Self-Assessment Questions

7.8 Suggested Readings

7.0 Introduction

The need for appropriate, written documentation of facts related to patients' treatment in the hospitals cannot be brushed aside, because failure to maintain records means failure of duty towards the patient. Medical records through which hospital statistics are generated serve as eyes and ears to the hospital administrator. Medical records are of importance to the hospital for evaluation of its services for better patient care. They also serve as a resource for education and training of physicians and others, also being the basis for clinical research. Research to be effective requires scientifically recorded observations as reflected in the medical record. And, the importance of accurate records for legal purpose is well established.

7.1 Administrative Services**1. Working with People:**

The administrator has no direct clinical responsibility for any patients that rests firmly on the members of the medical staff who have the clinical freedom to decide who shall be

treated for what, by what means and for how long. Because doctors are responsible in this way, they are in a unique position to influence the work and development of the hospital.

The physician's "management" of a case has an effect far beyond the clinic or ward situation, on the work of the other staff, and in the functioning of other departments remote from his sphere of action.

Thus, the clinicians to a very great extent call the tune for all the services which contribute to patient care not only for nursing, pathology, radiology, and pharmacy, physiotherapy and the rest of the professions supplementary to medicine, but also for the cook who makes the salt-free diet, the technician who maintains the dialysis machine, the ward boy who fetches the oxygen cylinder or the nurse who sets up an IV line.

2. The Enabling Role:

One of the prime roles of the administrator is to enable the doctors, nurses and patient-care team to do their job efficiently. He "enables", "sees" to and "ensures".

All this is part of his enabling job, but not the whole of it. He must concern himself also with creating and maintaining the nonmaterial conditions in which the professional staff can do their work best morale, atmosphere, the spirit of the place is as much of his business as the water supply and electricity.

Ensure the provision of necessary physical facilities and ensure that the supportive services are available in the right amount, of the right quality, and at the right time and place.

3. Hospital Administration and Staff:

Running any hospital calls for a great deal of tact and ingenuity. This is because there are many types of staff who are specialists in their own sphere and departments, which function more or less as autonomous units.

Workers at the operational level, e.g., nursing personnel, feel that more than one authority controls them—firstly the head of the clinical service, secondly the head of the nursing department and thirdly the administration. This multiplicity of reporting and regulating authority is a source of constant trouble.

4. Staff Motivation:

Expensive facilities and equipment do not necessarily make for a good hospital; it is the people who operate them that make the hospital go.

This function is one of the most challenging functions of a hospital administrator.

The staff needs to be motivated to give their best at all times even in trying situations. Many discouraging factors and stress situations, in which hospitals abound, tend easily to lead to erosion in motivation.

5. Facilitating Decision Making:

A great part of the job of a hospital administrator concerns decision making. There are several kinds of decision making in a hospital.

The most characteristic are the technical decisions about the treatment of patients, with which he is not directly associated, but which influence overall decision making, with which he is concerned.

Whether he recognises it or not, the clinician, no less than his colleagues who run the X-ray or pathology departments, is also a manager the most common decision about which patient to admit and for how long should he be kept in hospital can be taken only by individual physicians.

To them these may seem to be purely clinical decisions, but these are also management decisions.

To admit Mr. A rather than Mr. B or to keep Mrs. C in hospital a few days longer, or to send Ms. D home early to free a bed for someone else, all these are decisions which influence use of resources.

Within a particular specialty the chief of that specialty exercises a sort of coordinating function. However, between specialties, there is some element of confusion.

Various department heads may find themselves in a competitive relationship. Although each chief is entitled for help from the common services, and has a right to get it, this does not happen automatically.

6. Management of Resources:

All decision making is limited by the human and material resources the hospitals has.

The variety and quantum of the pressures and constraints on hospital administration is best seen when it comes to deciding between competing claims for manpower and financial resources.

How does one compare the need for a new lift to replace a very old one with that for a set of ventilators for the ICU? Or the requirement of two data entry operators for the computer section with extra technician in the laboratory for a new oncology programme?

The cost of some of them could be met from capital account, of others from revenue surplus and some may involve development expenditure requiring a decision of the board. The competition between them is not equal. But who decides this?

Decisions of this kind which together affect resources- decision to spend money, involving a choice among alternatives even where such choices are unrecognized must be made by the administrator.

The hospital administrator as an expert in the art of getting things done does not arbitrate on this or that, but assimilates, reconciles and synthesizes all the views of those who put up competing demands.

Nevertheless, in making decisions, at times, he may have to succumb to what is expedient.

7. Negotiating:

The administrator spends considerable time negotiating both with agencies outside the hospital and with staff members within, especially regarding their working arrangements and conflict resolution.

This is not to be confused with negotiating with workers' unions which is a collective bargaining process.

Administrators must negotiate with third party payers (insurance companies, employers) regulatory agencies, planning groups, equipment vendors and so on.

There are also elements of negotiation in the hiring of personnel and salary determination.

Ideally, the administrator should strive for a positive problem-solving situation. This implies moving away from a win-lose (I win you lose, or vice versa) situation to a win-win (I win-you win) end result.

8. Containing Costs:

Being in-charge of the “business” side of hospitals management, a hospital administrator is responsible for the conduct of all the “business” aspects.

Although a hospital is not primarily a business institution, business matters are vital to its survival even though they may not be the reason for its existence.

With phenomenal rise in hospital costs, the administrator has to devote considerable time and energy to monitor and contain costs.

The medical staff knows very little or nothing about the economics of hospital care.

Therefore, it is necessary to make them cost-conscious, to reduce expenditure without jeopardizing patient care.

The hospital administrator achieves this through presenting them with different types of costing data, and seeking their cooperation in containing costs.

The administrator puts into practice his knowledge and skills in financial management to practical use in forecasting financial results as precisely as possible.

If the budgeting has not been carried out correctly, funds allotted for specific activities can only be diverted to other activities at the peril of smooth running of the hospital.

9. Understanding ‘Efficiency’ and ‘Effectiveness’:

i. Efficiency is the rate at which inputs are converted into outputs. The emphasis is on qualitative measurement, and the objective is to secure maximum output from minimum input.

ii. Effectiveness is the extent to which purpose/goals are achieved. The emphasis is on qualitative measurement, and the objective is one of meeting customer needs and delivering service quality.

The distinction between efficiency and effectiveness has been described as ‘doing things right’ (efficiency) and ‘doing right things’ (effectiveness).

What this amounts to is that efficiency is ‘the rate at which inputs are converted into outputs’ and effectiveness is ‘the extent to which purposes are being achieved’.

10. Dealing with New Technology:

Hospital practice has become more and more dependent on high technology which can become rapidly outdated as the technological advance continues.

Medical staff is subjected to sales pressure from manufacturers of newer items, and they may tend to seek what is new without regard to cost because of the glamour attached with newer sophisticated equipment.

11. Establishing Managerial Climate:

One of the key responsibilities of the hospital administrator is that of establishing a “managerial climate”. Hospitals have their own “personalities” as people do.

This personality springs from value held by those running the hospital and the physicians who work in it, and governed by the sensibilities and impression of those who come in contract with the hospital.

Administrators and other staff both play a major role in the development of these values. Tradition and past history also bear upon the values held by the people.

12. Management Development:

The administrator cannot manage the institution single handedly by himself. There is ample need to strive for better management in a hospital, which has few trained managers.

Rapid changes are occurring which necessitate upgrading the knowledge, skills and attitudes in subordinate administrative positions.

Therefore, a part of the educational activities has to be directed to training and retraining of the administrative personnel, and even medical staff, in supervisory and managerial positions. Management development is a continuing activity.

Personnel are encouraged to attend various programmes of courses and workshops to improve their managerial and leadership skills.

13. Evaluation:

The ability to evaluate people, programmes and the overall effectiveness of the hospital is one of the competencies the administrator has to develop.

Evaluation includes evaluation of employee-clientele relationship and interpersonal behaviour. The judging ability of the administrator at times incorporates “intuition”.

14. Fact-finding and Investigation:

Whereas the administrator makes decisions mostly based upon his knowledge and experience, some will be made only after much fact-finding and analysis.

Managerial style is an important element in fact finding and investigation. Situations where consensus is important would call for attention to the group decision-making process, as opposed to situations calling for immediate decisions that cannot be delayed.

15. Social Commitment:

The hospital administrator is a part of the society in which the hospital functions. His vision therefore must not be restricted to the hospital in isolation.

He must be aware that he is a part of the wider health care system and serves the larger society through the hospital

7.2 Medical and Ancillary Services

7.2.1 Patient's Needs

It serves as a story of the patient's passage through hospital, maintaining continuity in that story. From this is extracted the information required by the patient, e.g. a medical certificate of his hospital stay, diagnosis and so on. It saves time in avoidable investigations if patient is readmitted and may well influence the course of subsequent hospitalisation.

Physicians now do not always have the time to get acquainted with the family life of a patient. For this reason, a written report of the family history and personal history are necessary. From an economic standpoint, use of medical record by other agencies representing insurance claims, union benefits, unemployment and industrial compensation is of paramount importance to the patient. Information contained in the medical records is often the determining factor in providing the patient with financial support or subsequent medical care for the remainder of his or her life.

7.2.2. Physicians Needs

Medical record meets the physicians' needs as:

- i. Practice of scientific medicine based on recorded facts,
- ii. Continuity of medical care,
- iii. Evaluation of his own capabilities and short-comings, and
- iv. Effective communication for the medical team.

If adequate in content, records when properly classified, can be promptly retrieved for study and research. The progressive physician welcomes an opportunity to use such source material to survey the result of the treatment in a particular disease entity. Frequently a physician will wish to review all cases which he or she has had in the hospital during a given time. The doctor may have a patient who does not remember details of a previous hospitalisation, but by referring to the record of that hospitalisation, he or she may ascertain what organ or organs were removed at the time of operation. Also, the physician or the hospital may need to refer to the record for medicolegal purpose if he is called as a witness in the court.

7.2.3 Institution's Needs

The hospital benefits as the records help in:

- Generating hospital statistics
- Teaching and research

- Admission control
- Planning of services
- Improving quality of care
- Safeguard in tort suits. (Medico-legal cases)

Statistics gathered from medical records show to the hospital administrator whether or not the efforts of physicians supplemented by the hospital facilities are in accordance with reasonable expectations of modern scientific medicine. Liability suits involving hospitals have been on the increase. Therefore, the hospital should be able to bring before the court of law a complete, up-to-date medical record, fully documented, in regard to the patient's illness and treatment. Testimony based on recorded facts is given a greater consideration than testimony dependent on memory.

7.2.4 Health Authorities' Needs

The records are important to the public health authorities as they contain reliable information regarding morbidity and mortality patterns of dependent population. National and state health laws require that certain reports be made available regularly to them. Reports like births and deaths, infectious diseases, notifiable diseases, statistics regarding incidence of diseases, and types and number of family planning procedures are constantly required by the government. Without the aid of medical records, this is not possible.

Patients' records are believed to have been kept in ancient India by individual physicians in emperor Ashoka's time (200 BC). In seventeenth century, St Bartholomew's hospitals in London first started to keep written records, which was later followed by some hospitals in USA. However, the impetus to the idea of proper written records came in USA from the American College of Surgeons and American College of Physicians in the beginning of the last century.

In 1928, the Association of Medical Record Librarians was formed in USA. In India the Mudaliar Committee (1963) first stressed its importance and the subsequent review committee for health and hospitals (Jain Committee, 1968) lamented the poor state of medical records and strongly recommended establishment of proper medical record sections in every

hospital. However, the progress in this matter has not been very satisfactory, with only lip service being paid to this aspect by most of the hospitals. Only some government hospitals have properly organised medical records department, besides some voluntary hospitals.

Medical authorities in India have been slow to realise the potential of good medical records in hospitals in improving patient care, or of the seriousness of problems that poor medical records create. One of the most important reasons why enough emphasis had not been placed in the past in development of good medical records systems is that there is no regulatory control on quality of care (medical audit) either by the central or by state medical authorities, neither are there any accreditation requirements from any of the professional associations in the field like Indian Medical Association, Indian Hospital Association, Indian Society of Health Administrators, to mention only a few out of many such organisations. Medical insurance that requires maintenance of good medical records had been almost non-existent till recently, and there have been very few malpractice suits against hospitals in India, thus, pushing the requirement of good medical records to the background. However, things have gradually changed over the past some decades wherein the importance of good medical records systems in hospitals are being increasingly realised.

Lamenting the lack of good medical records department and realising the importance of such departments in all hospitals, the central Ministry of Health organised a workshop on standardisation of medical records and reports for hospital management and development for district level hospitals at Bhopal in 1986, which made certain recommendation

7.3 Medical Record

Definition

McGibony considered medical record as a clinical, scientific, administrative and legal document relating to patient care in which are recorded sufficient data written in the sequence of events to justify diagnosis and warrant treatment and end results.

Medical records is defined simply as a systematic documentation of a patient's personal and social data, history of his or her ailment, clinical findings, investigations, diagnoses, treatment given, and an account of follow-up and final outcome.

A medical records document serves as: a clinical document—listing the clinical history, physical examination, investigations, nursing records, etc. a scientific document—because it is used to study the patient's condition and progress through scientifically practised medicine, and for research. an administrative document—it helps administrative control, planning of services, budgeting, improving quality of care, hospital statistics a legal document—admissible under Indian Evidence Act in law courts in defending malpractice suits, in law torts in defence of hospitals and its clinicians.

Medical records is a personal document in so far as it is associated with an individual identifying him with his history of illness, findings, treatment, complications and so on.

Being a personal document, it is a privileged communication, the information from which cannot be released without the patient's consent. On the other hand, it is also an impersonal document, when its contents are used for research and training, without disclosing to whom the information belongs.

7.3.1 Characteristics of Good Medical Records

The problem of completing records is a very real one for the overburdened physician. Notwithstanding the busy schedules of physicians and others in generating records, the medical records must be:

- i. complete—sufficient data to identify the patient, justify diagnosis, treatment, follow-up and outcome,
- ii. adequate—with all necessary forms, all clinical information, and
- iii. accurate—capable of quantitative analysis.

Since the primary reason for record keeping is to improve patient care, there can be no disagreement that the patient in a small hospital is just as important as the one in a 500- bedded hospital. The three basic principles are that they must be accurately written, properly filed, and easily accessible. Otherwise, they become simply an expensive nuisance.

Forms

Many different types of medical record forms in many different designs and sizes are in use in different hospitals today. At times, forms have frequently been made up to satisfy individual physicians in one special branch of medicine. However, medical records department cannot function efficiently without standardisation of all forms in use in the hospital. Order, accuracy and brevity should result from the use of these forms, which should be of fixed format, size and colour. All forms should be of good quality paper to withstand frequent handling. The paper having the lowest initial cost may not be the cheapest in the long run. 8-1/2" × 11" is the most common size of an inpatient medical record used in nursing units.

7.3.2 Major Functions of Medical Records Department

The functions of the medical record department are:

- i. to develop a good medical records system,
- ii. to generate hospital statistics,
- iii. develop new record system in newer departments,
- iv. reporting to state and health agencies,
- v. training, and
- vi. quality assurance.

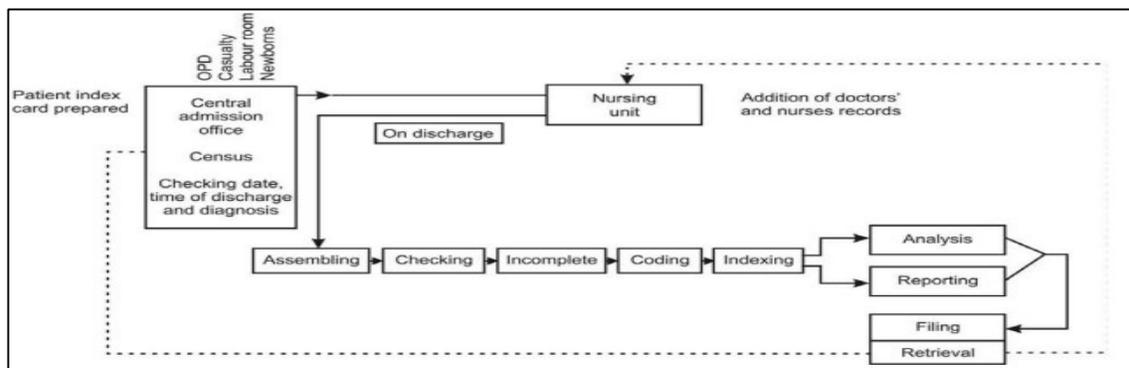
While as the above functions are limited exclusively to the medical records department, the inputs to the records are provided through the physicians and nursing personnel.

Thus, there are three main sections in which the medical records function of the hospital is divided (Table .1).

Table 18.1: Division of medical records function		
Identification section (central admission office)	Medical and nursing unit	Record office
Reception Reservation of beds	History Examination	Assembling Checking (deficiency checksheet)
Initiation	Diagnosis	Incomplete record control
Identification	Investigations (name index card)	Coding—ICD
Social data	Consultation	Indexing—Alpha • Disease • Doctor • Ward • Unit
Assignment (to wards)	Treatments	Analysis (medical audit committee)
Notification	Progress notes	Reporting (statistical summary)
Central admission and discharge register	Nurses notes	Filing
	Graphic charts	Retrieval discharge summary

Four important things should be ensured in any medical records departments. They are as follows.

1. Prompt record service, for any information.
2. Convenient and adequate accommodation. It is ideal if both inpatient and outpatient records can be kept in one location. The department should be so located where it is easy for the doctors to come and go



3. Easy availability. Retrieval of record or ready availability of other data pertaining to patients.
4. Simple procedures.

Outpatient Record the OPD medical record counter should be located near the entrance to the OPD. Adequate space to take care of a desk, chair, filing racks, index cabinets, etc.

should be provided. An outpatient identification ticket with provision for name of the patient, registration number and date should be prepared here for the patient. The size of the OPD record card recommended is $9'' \times 6''$. In some hospitals, it is $8\frac{1}{2}'' \times 11''$, the same as inpatient record. In the card, provision is made apart from patient's name and identification data, for history and physical examination findings, provisional diagnosis, investigation and treatment, diagnosis and follow-up.

Filing

The longer a patient remains in hospital, bulkier the medical record becomes. And where the number of discharges is high, the quantum of records becomes high and enormous. Filing system of records, therefore, plays a crucial role in the smooth functioning of the department. An efficient system involves the following.

1. Properly organising the documents of each patient
2. Identifying each record. This can be indexed:
 - Alphabetical
 - Numerical
 - Serial unit
 - Terminal digit.
3. Placing the record file in cabinets/shelf
4. Keeping track when withdrawn from the cabinet/shelf.

Numbering

Various systems of numbering of the records are followed in different hospitals, the most common is the serial numbering.

1. Unit numbering
2. Serial numbering
3. Serial-unit numbering
4. Group digit and terminal digit numbering where the number of records is in lacs.

Where a unit system or serial system of record identification is followed, a means to link inpatient and outpatient records has to be found by linking inpatient discharge cards to outpatient records.

7.4 Medicolegal Records

There should be separate cabinets for such records, and separate indexing. They should remain in the personal custody of the records officers, and should be available at all times.

7.4.1 Incomplete Records

The problem of incomplete records is a perpetual problem with some physicians. Record clerks and librarians go to limitless ends to cajole physicians, particularly the senior ones, into keeping records current. Although this is often the best way to accomplish desired results, the staff member who is treating too many patients to have time for keeping adequate minimum records is probably too busy to be giving adequate care to his or her many patients. The medical records committee, hospital administration and the governing board must squarely face this fact.

On the other hand, to obtain correct data entails much paper work. This is often considered boring by physicians, but this can only be ascribed to a limited vision concerning their total responsibilities.

7.4.2 Medical Records Committee

The overall responsibility for efficient functioning of the medical records departments is that of the administrator. However, a committee consisting of members of the medical and administrative staff should be formed to overview the functioning of the medical records department. The function of the medical records committee is to evaluate the records for their correct maintenance which includes describing the condition and progress of the patient, therapy provided, results thereof, and recording of all actions taken.

The membership should consist of at least three members including the administrator, with the medical record librarian as its secretary. The committee should meet at least once a month. Patients' records are checked to ensure that the following records are filed in the appropriate sequence and manner.

Filing of records in appropriate sequence and manner

• Summary sheet	• Operation record
• History	• Tissue report
• Physical examination	• Death certificate
• Laboratory reports	• Authority for autopsy
• Physicians' orders	• Authority report
• Progress notes	• Hospital infection report
• Nurses records and charts	• X-ray reports
• Labour record	• ECG reports
• Birth certificate	• Urology report
• Authority to operate	• Other graphic records and charts
• Anaesthesia record	• Any other, if indicated

The medical record librarian separates records into “complete” and “incomplete” groups. Deficiencies are noted in an appropriate manner for which the committee can develop worksheets for use in recording review findings. All incomplete records are reviewed by the whole committee which then forwards its comments and recommendations.

The committee should periodically evaluate the entire record keeping function, and should have the authority to approve new forms, delete obsolete forms, modify existing ones and suggest improvement in design for better record keeping functioning.

7.4.3 Retention of Records

The length of time a medical record is to be retained should be determined by the existing law. However, there is no law in India which specifies such a period. In the absence of such regulatory requirement, the hospital administration will have to establish its own policy governing retention.

Theoretically, hospitals should retain records for as long as there is a medical or administrative need for them, e.g. subsequent patient care, medical research, review and evaluation of professional and hospital services, or defence of professional or other liability actions.

Apart from the above factors, the hospital should also consider the storage capabilities. The retention periods have been endlessly debated in various forums with some clinicians wanting to retain them up to 20 years.

Some of the senior medical records officers consider it desirable to retain them as under:

- a. Need of patient: Up to 7 years
- b. Medicolegal: Inpatient—7 years
: outpatient—5 years
- c. Teaching/research: Up to 7 years

It is seldom that records older than 7 years have been required to be retained. The American Hospital Association and American Medical Records Association have adopted a policy of retaining a record for a period of ten years. Keeping records for such long periods consumes a lot of space. The two alternatives to retaining bulky medical records are:

(a) Microfilming, and (b) Comprehensive summary.

7.4.4 Computerisation of Medical Records

Medical records department is one of the most suitable departments in a hospital for computerisation of its entire function. Since the department's entire operation deals with information and documentation handling, comprehensive computerised hospital management system would have a significant impact on its daily operations. It would directly benefit medical records by:

- a. location monitoring of patient charts;
- b. automatic assignment of ICD numbers;
- c. improved procedures for generating admission, discharge, birth, death and other medical records;
- d. simplification of chart-abstracting functions.

As part of computerised hospital management system, documents usually typed in medical records department would be keyed into the system, edited at a computer terminal and entered in the patient chart. If the transcribed document is for a patient currently in hospital, the chart copy could be printed online at the patient-care unit itself.

The rules governing confidentiality of information in a computerised system are the same as those in a traditional record system. Unauthorised release of patient information by means of a printout at a remote computer terminal will have to be guarded against. Hospitals with computerised records system should have records confidentiality policy, and will have to include security devices in their computer programme to prevent unauthorised access to stored data.

7.4.5 Census and Discharge Analysis

- a) Collect the discharge case sheets, death certificates and birth reports from the wards as per the census report received from the wards and nursing superintendent's office.
- b) To hand over the death certificates and birth certificates to the person dealing with vital statistics.
- c) To make entries of all cases in the discharges analysis register, i.e. Central Registration number, age group—if case is new born, put in column "Born in hospital" with sex and in column "Admission", type of admission, admissions date, discharge date, days of stay (count one day either date of admission or date of discharge) in the treated department's column. Mark in column of private ward patient the admitting staff member's name.
- d) Entry of case sheets due and received later be made in the same date of discharge.
- e) To take out the patient index cards of discharged patients from the in-house cabinet and put the date of discharge in the index card.

Assembling of Records and Deficiency Check To assemble records in the following order.

- f) Face sheet, case summary and discharge records, history and physical examination, labour record, consultation record, laboratory and other investigation reports, anaesthesia record, operation record, nurses record, temperature chart and OPD card.
- g) Tag the case sheets, keeping in view that the CR number is not missing while tagging.
- h) To check the complete and incomplete case sheets. The complete case sheets be filed in the proper filing area and incomplete case sheets be sent to doctor's room for completion. The incomplete records should be filed Unit wise.
- i) Submission of list for incomplete records to hospital administrator periodically.

7.4.6 Patient Index

- a) Sort out the cards in alphabetical order
- b) File in the patient index cabinet strictly in alphabetical order
- c) Take help of this index if the CR number has to be found out only by name. Sometimes the patient does not remember the date of admission in the hospital.

Coding

- a) Classifying the record of inpatient by diseases using ICD coding system.
- b) Coding to provisional diagnosis (at the time of admission).
- c) Coding to death certificate. Indexing (Diagnostic)
- d) Indexing of all cases with multiple code numbers.
- e) Put the year and code number on the top of the card used, the first card as A1, back A2 and so on.
- f) Make entries of CR numbers, age and sex, complication, unit, duration of stay.
- g) Compilation of provisional diagnosis in code numbers, later on monthly basis.

Filing

- i. To file the case sheet according to serial inpatient CR number.
- ii. To paste the slip-on filing racks indicating the records, i.e. 1 to 300, 301 to 600 and so on.
- iii. Always remove the case sheets by keeping a tracer card for knowing the movement, and care should be taken to withdraw the tracer card, while the case sheet is filed back

Group Study

- a. To issue case sheets to professors, associate professors' lecturers, pool officers, senior and junior residents or other consultants on demand
- b. To issue case sheets to sister in charge in case of readmission of the patient
- c. To make entries in the loan register and obtain signature.
- d. If a slip is sent by the medical officer, the same is to be filed in the authority file
- e. To prepare the tracer card for taking out the case sheets
- f. To put issue number on the top of the case sheet for easy location when the same is returned
- g. To receive the case sheets in the loan register when same is returned

- h. To prepare the reminders for the nonreturn of case sheets
- i. To submit the name to medical superintendent if the same are not returned in spite or reminders, periodically
- j. Diary, despatch, circulation file.

7.4.7 Vital and Health Statistics

- a. Entry of birth reports in the birth register
- b. Sending births report to local municipality within 7 days with a covering letter
- c. Issue of birth certificate on request (on payment of designated fee)
- d. Amendment in birth certificate on the basis of hospital record only. An affidavit may be requested by the applicant for change in the record and that should be on a nonjudicial stamp paper and attested by the first-class magistrate
- e. A copy of the amendment should be sent to the local municipality
- f. Entry of death report in the death register. Sending death report to local municipality within 3 days with a covering letter
- g. Issue of duplicate copy of death certificate on request on payment of the designated fee by the applicant.

7.4.8 Compilation of General Health Statistics

Total patients discharged, days of care to patients discharged, average length of stay, total deaths, deaths under 48 hours, over 48 hours, percentage gross death rate and net death rate, total patients admitted, total patients days of care to patients in hospital, daily average number of patients, average percentage of beds occupancy, births in the hospital, operations conducted during the month in various disciplines, minor as well as major, compilation of unit wise distribution of admissions and discharges along with percentage geographical distribution of patients admitted, compilation of new and old cases attendance in OPDs and special clinics and compilation of data for annual report.

7.4.9 Correspondence

- a. Statistical data to be supplied to local municipality and directorate of health services on monthly basis and as and when data is required.
- b. Correspondence for patient care, i.e. hospitalisation certificate, original or copy of the record required by other hospitals, record required by the court of law.

- c. Receiving application for completing the medical attendant's certificate or certificate of hospital treatment by the treating physician in case of insurance policies and claims.
- d. To send the certificate after completion to insurance company with a copy of the covering letter to the party concerned.
- e. The medical record of the patient is of confidential nature. No record or the contents therein should be given to anybody without medical superintendent's permission

7.5 Summary

India's health scenario currently presents a contrasting picture. While health tourism and private healthcare are being promoted, a large section of Indian population still reels under the risk of curable diseases that do not receive adequate attention of policymakers. India's National Rural Health Mission is undeniably an intervention that has put public health care upfront. Although the government has been making efforts to increase healthcare spending via much still remains to be done. The priority will be to develop effective and sustainable health systems that can meet the dual demands posed by the growth in non-communicable diseases and peoples' needs for better quality and higher levels of health care.

7.6 Key words

Health Authority's Needs- The records are important to the public health authorities as they contain reliable information regarding morbidity and mortality patterns of dependent population.

Computerisation of Medical Records- Medical records department is one of the most suitable departments in a hospital for computerisation of its entire function

Retention of Records- The length of time a medical record is to be retained should be determined by the existing law.

Medicolegal Records- There should be separate cabinets for such records, and separate indexing. They should remain in the personal custody of the records officers, and should be available at all times.

7.7 Self-Assessment Questions

1. Briefly Explain the Administrative services in the Hospital

2. Discuss the Characteristics of Good Medical Record?
3. Outline the Major Functions of Medical Record Department.

7.8 Suggested Readings

1. Sakharkar, B.M., & Jaypee Brothers (Jaypee Digital) (2009) Principles of Hospital Administration and Planning, (Jaypee eBooks), Jaypee Brother Medical Publisher Private Limited.
2. Hospital Administration (2017) DC Joshi and Mamata Joshi Jaypee Brothers Medical Publishers (P) Ltd.; 1st edition
3. Hospital and Healthcare Accreditation (As Per the Guidelines of NABH, NABL, JCI) (2018) Brajkishore Rajoriya Six Sigma Star Healthcare (P) Ltd, New Delhi, India; NABH, NABL, JCI.
4. Performance Improvement in Hospitals and Health Systems: Managing Analytics and Quality in Health care (2018) James R. Langabeer II CRC press Taylor and Francis Group Productivity Press Book.
5. Service Quality for Facilities Management in Hospitals (2016) Low Sui Pheng & Zhu Rui (auth) Low Sui Pheng & Zhu Rui (auth.) Springer Publications
6. Introduction to Health care quality Management (2009) Patrice Spath AUPHA press Washing Ton PC.,

LESSON -8**NURSING SERVICES****Learning Objectives**

- To study the Nursing duties in Hospital
- To understand the Characteristics of Good Nursing care
- To Know the Guiding principles for Nurses

Structure

- 8.0 Introduction
- 8.1 Nursing duties in Hospital
 - 8.1.1 Characteristics of Good Nursing care
- 8.2 Guiding Principle for Nurses
 - 8.2.1 Nursing care process
- 8.3 Nightingale Nurses
- 8.4 Progressive Patient care
- 8.5 Intensive care
- 8.6 Intermediate care
- 8.7 self-care
- 8.8 Long term care
- 8.9 Nursing station
- 8.10 Doctor room
- 8.11 Sanitary facilities
- 8.12 WC's Bathrooms
- 8.13 Wash Basin
- 8.14 Dirty Utility Room
- 8.15 Treatment and Dressing room
- 8.16 Isolation room
- 8.17 Clean utility room
 - 8.17.1 Clean Utility
 - 8.17.2 Day room
 - 8.17.3 Auxiliary Accommodation
- 8.18 Patient Monitoring
- 8.19 Special Nursing Unit
- 8.20 Intensive Care Unit
- 8.21 Nursing shift Scheduling
- 8.22 Barrier Nursing
- 8.23 Summary
- 8.24 Key words
- 8.25 Self-Assessment question
- 8.26 Suggested Reading

8.0 Introduction

The nursing unit, also called the “ward” is a grouping of accommodation for the patients with service facilities which enable a team of nurses to care for inpatients under the best possible conditions, and includes under one roof patient beds, the nursing station, the service

area, storage area, work area and sanitary area. An ideal nursing unit should provide for the best possible physical facilities, should result in a high quality of nursing care, should be operated at the lowest possible cost, should provide the most desirable patient environment and provide a congenial work environment for the nursing and medical staff. The planning of the nursing unit emerges from the work which the nursing and associated staff have to perform. Since it caters to the needs of a mixed group of people in various stages of illness or convalescence spending part or whole of their time in bed, it is like a temporary home to the patient.

8.1 Nursing duties in Hospital

Patients/families enter hospital with the expectation they will encounter staff who are concerned for their health and dignity as individuals. These individuals need emotional and physical help and support

1. Every conversation and action with each patient/family should be directed at meeting the patient's expectation of the Service
2. Any explanation should be provided in a quite calm manner
3. Families of patient should be provided the same courtesy, time and concern
4. Conversation between staff members, which includes gossip, derogatory remarks of personal matters, is not acceptable
5. The message the patient/family should perceive from our behavior is that of undistracted concentration on his/her problem. Each individual will monitor his/her own behavior
6. The immediate supervisor is also accountable for the professional bearing of subordinates

8.1.1 Characteristics of Good Nursing Care

Prime Job: Ensure speedy recovery at the earliest without any or minimal Complication

1. Good reception and orientation to patient and family on admission
2. Effective explanation and adequate reassurance to patient and family
3. Observant about patient condition
4. Assist to meet the physical, emotional, spiritual and social needs of the patient
5. Maintain good nursing care process

6. Provide effective health education to patient
7. Effective compliance to patient safety interventions
8. Provide correct nursing procedures
9. Maintain high quality sterile techniques
10. Maintain correct and accurate recording and reporting
11. Provide correct and precise patient information during handing taking and to the treating doctor
12. Effective instruction at discharge and follow up of patient and family
13. Organized approach to caring and curing
14. Enthusiastic and complete in carrying out nursing job timely
15. Understanding the need and problem of patients
16. Successful in achieving patient's trust and confidence
17. Maintain effective team coordination and collaboration and communication
18. Economic and proper use of resources

8.2 Guiding Principles for nurses

Guiding Principle

1. Nurses are held accountable for their professional actions
2. Nurses are responsible for maintaining license to practice and to meet criteria for relic ensure as mandate by BMHC
3. Nurses should respect the rights of the patients
4. Provide safety in so far as the hospital practices and environment affect the patient.
5. Protect the patient from harm
6. Provide protection of the patient's personal area and possessions from unwarranted intrusion.
7. Inform health care providers (doctors) of patient's condition.
8. Conduct discussions/consultations discreetly with patients.
9. Maintain confidentiality

10. Accurately report and record nursing observations verbally and in writing. Maintain correct chart notations.
11. Follow the hospital policy for the reporting of unusual, untoward incidents.
12. Nurses should understand the scope of professional practice and recognize and refuse those duties, which fall beyond this scope.
13. Nurses must familiarize themselves with written policies and procedures of the hospital and Unit
14. Nurses must delegate only that duty that sub-ordinates are trained to perform within the job description and as demonstrated by individual competence
15. Nurses must keep informed of changes in nursing practice and use sound judgment in all actions.

8.2.1 Nursing Care Process

1. Collects pertinent data in a systematic and ongoing process using appropriate assessment techniques.
2. Data collection involves the patient, attendants/relatives, and health care providers, when appropriate
3. The plan is individualized to the patient's condition or needs
4. Includes strategies within the plan that address each of the identified nursing diagnosis, which may include strategies for promotion and restoration of health and prevention of illness, injury, and disease.
5. Incorporates an implementation timeline within the plan.
6. Integrates current trends and research affecting care in the planning process.
7. Interventions are consistent with the established plan of care and includes health teaching and health promotion
8. Implements interventions in a safe and appropriate manner, documents interventions
Collaborates with nurse colleagues to implement the plan
9. Coordinates care delivery and documentation of care
10. Involves the patient, attendants/relatives, and the health care providers in the evaluation process, when appropriate
11. Uses ongoing assessment data to revise nursing diagnoses, outcomes and plan of care as needed
12. Evaluates the effectiveness of interventions in relation to outcomes

13. Documents should be legible for communication, factual, accurate, complete, current (timely), organized and confidential and it should be able to judge the quality and quantity of work done
14. Document should serve as evidence for continuity of care and for medico-legal cases.

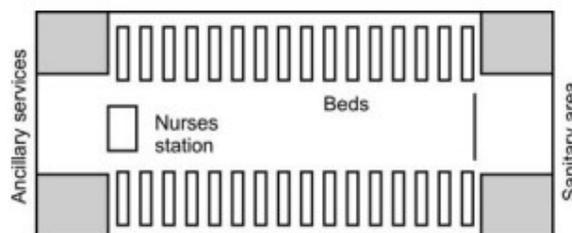
8.3 The Nightingale Ward

The traditional nursing unit was based on the ward concept established by Florence Nightingale, which centered around the head nurse. It was a self-contained unit for 35 to 40 or more patients, with its own kitchen and arrangements for all stores and supplies, where the nursing sister was the matriarch who combined the role of housewife with that of nurse.

The Nightingale ward was a pavilion type of ward and consisted of patient beds in two rows at right angles to the longitudinal walls, with toilets and bathrooms at one end, and the nurse's table, doctor's room and other technical facilities at the other end. Nurses had to walk long distances to attend to patients. Subsequently, the nurse's table saw a shift towards the center of the ward, and the toilets and bathrooms were also shifted in the center, in the form of an annexe. A later change was replacement of the nurse's table by a nursing station to house various service facilities. In spite of these changes, the Nightingale ward suffered from disadvantages such as lack of privacy to patients, a not-so-quiet ward atmosphere and danger of cross-infection, all of which were a direct result of the pavilion.

It was gradually realized that a large ward of 40 patients and more resulted in reduction in human contact between the nurse and patient. This, subsequently led to the reduction in the number of patients in each nursing unit to enable the nursing staff to establish a closer relationship with their patients.

Due to increasing complexities of nursing procedures, technical advancement in medicine, understanding the concept of hospital infection and changing expectations of



patients, the nursing organization has undergone considerable change during the recent past; the design of the nursing unit has changed accordingly.

Even though a nursing unit now is better organized and administered, results in better material handling, has better nursing organization, and designed for economy in space which are all important in planning of nursing units, the patient and his or her human needs require equal emphasis in planning. They should not be subordinated to design considerations alone.

8.4 Progressive Patient Care

Nursing supervision is deliberately maximized in critical care units, where the patient is very ill and need for privacy is reduced. When the patient is getting better, observability can be reduced. Gradually, the recovering patient is transferred to a medically less sophisticated unit. Different kinds of units that offer varying degrees of patient adjusted care are replacing standard nursing units.

A system of progressive patient care has been adopted in most hospitals which has a considerable effect on nursing unit design. Under this system, the inpatient area is divided into various sections based on the intensity and type of nursing care required, as follows:

8.5 Intensive Care

The intensive care unit is for patients in acute stage of illness who are unable to communicate their needs. They require continuous observation and extensive nursing care with personnel specially trained for the job. The aim is to first support life in a crisis, prevent threat to life, and then to eliminate the cause of disfunction by specialized treatment and extensive nursing care. Therefore, the unit is equipped with life-saving equipment, and all necessary life-saving drugs and supplies are immediately available.

8.6 Intermediate Care

The intermediate care unit is for patients who are moderately ill, including patients transferred from intensive care unit who require moderate amount of nursing care. A large proportion of all hospital patients will be directly admitted to this unit.

8.7 Self Care

The self-care unit is for those patients who, after the acute phase of illness is over, become ambulant during the period of convalescence, or are admitted for diagnostic procedures and are able to look after themselves. Nursing care required for this category of patients will be minimal.

8.8 Long-term Care

The long-term care unit is for patients requiring prolonged nursing care and where such services not normally available at home, including adjustment to disabilities by physical and rehabilitation therapy.

The basis of progressive patient care system is the amount and type of nursing care required and the degree of dependence of the patient on others. The design of the nursing unit and facilities to be provided differ from intensive care through intermediate, self-and long-term care units.

However, it is debatable whether the system results in economy in bed utilization because, if each section is capable of taking only patients of a particular category, bed utilization would get adversely affected due to fluctuations in demand in each category.

8.9 Nursing Station

Location of the nurse's station as close to the patients but as central as practicable is important for the cohesive functioning of a nursing unit. One of the greatest difficulties of ward planning is to achieve the correct balance between privacy for the patient and adequate supervision by the nursing staff.

The nurse's station is the nerve center of the ward unit. Its position should be so that the nurse can keep watch on as many patients as possible. In the Rig's type ward, patients' rooms on either side of the nursing station with provision of large glass partition for direct observation are usually earmarked for acutely ill and more serious patients requiring constant observation.

The nurse's station should be open to the corridor but separated from it with a counter which acts as a desk as well as a barrier. Basically, the nurses station consists of the sister's room with attached WC, with table for preparation of medicine and injection trays and for preparing biological samples for hospital laboratory. The room has built-in cupboards for storage of drugs, dressings and instruments, a small separate room adjacent to the nurse's station can also be used as the ward medical store. Closet for narcotics and dangerous drugs and a refrigerator for storage of antibiotics and sensitive injectable should be provided.

The electric panel of the nurse's call station if provided must be so located that it is constantly visible to the nurse. Paging system and intercommunication system panel, if installed, will also be at a convenient spot in the nurse's station.

An innovation has successfully been tried to locate the nursing station in the corridor itself. In a ward in which 4-bedded rooms each with integral toilet facility have been located on both sides of a long stretch of central corridor, the nurse's station has been located in the corridor itself. It consists of a cantilever desk attached to the wall. Under the cantilever, sets of drawers are located, and over it supplies closets attached to the wall. Each corridor can have a succession of such nurses' stations at regular intervals.

8.10 Doctor's Room

A separate room for use of resident doctor and others for examination of patients and consultations is required in a ward unit. It can also serve as a clinical conference room. It should have an examination couch, desk, chairs and a wash basin.

8.11 Sanitary Facilities

Apart from the toilet and bathroom provided in single- bed and two-bedrooms, it is necessary to provide toilet facilities within easy reach of other patients. This can be provided in the form of a lavatory block or sanitary annexed. Sanitary installations in hospitals can be kept better maintained when they are concentrated in one block.

8.12 WCs and Bathrooms

In practice, one WC per 6 to 8 beds has been found to be adequate in general wards. The type of WCs (Indian type or Western type) will be determined by the predominant class of the clientele in general wards of the hospital. Even where Indian type WCs are fitted, one in each sanitary block is recommended to be of Western type for patients who cannot squat. Minimum one bathroom per ten beds for a general ward is recommended.

8.13 Wash Basins

The nature of work in hospitals demands a high standard of hand cleanliness. Therefore, easily accessible wash basins have to be provided at appropriate places. A comfortable working height when standing is usually set at 91.5 cm at the wash basin rim. Wash basins should be placed in the corridor of the sanitary block. For patients, one wash basin per 8 beds is considered adequate. Besides this a wash basin is recommended to be fitted in 4 and 6

bedrooms. Wash basins used by wheelchair patients should be 70 cm deep with a narrow apron to allow knee room underneath, the maximum height at the rim being 80 cm for such patients.

8.14 Dirty Utility Room and House-keeper's Closet

Dirty utility: Facility for storage of single use containers used for collection of human waste, its subsequent disposal and other associated activities and the temporary holding of used equipment, materials and refuse.

The room required for emptying and cleaning of bedpans, urinals and sputum mugs, and for temporary storage of stool and urine specimens is termed the dirty utility room. It should be fitted with a slop-sink or bedpan washer for emptying and cleaning of bedpans, and flyproof cupboards for storage of stool/urine specimens. This room can be a part of the sanitary block. The room must have a closet for keeping the janitor's (safaiwala's) implements such as brooms, buckets, brushes, mops and cleaning materials.

Some wards have separate rooms for storage of soiled linen before it is dispatched to the laundry. A separate soiled linen room is not considered essential in a ward, its purpose can be served by a large soiled linen closet in the dirty utility room. Many of the linen items badly soiled with blood and other material require preliminary soaking and washing before being sent to the laundry. Location of the soiled linen closet in this room serves this purpose well.

The routes by which used, dirty and infected material of all kinds is removed need careful attention. In tall Multi storeyed buildings, it should be possible to remove all such material by special lifts directly serving the dirty utility rooms. In one or two storey buildings, bundles or bins containing used and dirty material can be collected through hatches opening directly outside the buildings.

8.15 Treatment And Dressing Room

It is the room where dressings, minor treatments including special examinations, lumbar puncture, intravenous injection administrations, or other treatment and procedures which cannot be carried out in the patients' beds, are performed.

If properly equipped, it can also be used for carrying out minor surgical procedures. Apart from other things, the room can be equipped with an instrument sterilizer and sink. Although one room for a ward of 25 to 30 beds would be ideal, one such room can be combined for use between two adjacent wards on a patient floor.

8.16 Isolation Room

If adequate safeguards are provided for protection of the patient and personnel, any patient room can be converted into an isolation unit. In most cases, a one-bedroom should suffice for the purpose. The room used for infectious disease patients additionally has a sink and bedpan washing arrangement. There should also be arrangement for putting on gowns just outside the door of this room.

8.17 Clean Utility Room

8.17.1 Clean utility

Facility for holding and preparing all clean and sterile materials used in the treatment of patients and used for the safe keeping of drugs, medicines and supplies. A room is required for storage and preparation of materials, equipment and supplies such as infusion fluids and sets, sterile packs from CSSD, dressing drums and for setting up of treatment trolleys and trays. However, these functions can be equally well-combined with those of the treatment room, with additional built-in closets for storage of clean materials.

8.17.2 Day Room

An ability to move about at an early stage during hospitalization has a beneficial therapeutic effect on patients. Called a solarium (literally, a place for enjoyment of sun's rays) in the Western countries where sunshine is scarce, a comfortably furnished room with recreational material is provided in the ward as day room for sitting and relaxing and for meeting visitors. The day room should be located at the end of the ward, away from all activity. A common day room can be provided for adjoining wards.

The day room can also be used as dining room if such facility does not exist in the ward. In case it is not possible to provide a day room, a suitable space—perhaps a cordoned-off portion of a corridor or such similar area— should be earmarked as day space and sit-out area.

8.17.3 Auxiliary Accommodation

A ward laboratory (clinical side room) to perform routine blood, urine and other tests by house surgeons and interns for quick results is required in wards of teaching hospitals. A seminar room for conducting clinicopathological conferences is also a specific requirement of teaching hospitals.

Other accommodation in the nursing unit includes the duty medical officer's room, the sister supervisor's room, staff rest room and change room for nurses. It is not necessary for each ward to have this set of rooms individually. They can be common between two or three wards or for each patient floor.

An open enclosure is required in each nursing units as a stretcher and trolley bay for parking of trolleys and wheelchairs and storage of stretchers.

Miscellaneous Facilities

Arrangements for piped oxygen and suction to wards, supplied from a central manifold room are a requirement of large hospitals. The piping for oxygen and suction runs near the ceiling, with outlets mounted at convenient points on walls next to patient beds. This system obviates the need of maintaining suction machines and oxygen cylinders in the ward.

Other facilities include arrangement for supply of hot water, and piped gas for heating purposes in the ward kitchen and pantry.

8.18 Patient Monitoring

Electronic monitoring is being increasingly introduced especially in intensive care and postoperative recovery wards. The equipment varies from single units for individual patients to large complex system giving multiple patient observations on viewing screens and recordings and tracings on paper and tape.

Even with sophistication in medical electronics which has resulted in compact equipment small in size, space requirements for housing the equipment are considerable. The guiding factor is that the equipment and the maze of cables and tubes leading to and from it should not interfere with the free movement of medical and nursing staff, with space available for wheeling-in more equipment if required.

The area required in patient rooms for single patient monitoring systems would be larger by about 20 per cent than otherwise acceptable. For large multiple patient observation systems, the planning, programming, design and installation of the equipment has to be done during the initial stages of hospital planning to cater for appropriate electrical and equipment cables as well as space requirements. Consultations with hospitals engineer in conjunction with the engineer of the equipment suppliers will have to be held.

8.19 Special Nursing Units

Differences in the type of patients and peculiarities of nursing care necessitate changes in the design and facilities required in certain types of nursing units. Such units are the intensive care unit, infectious diseases ward, pediatric ward and maternity ward.

8.20 Intensive Care Unit

The most critically ill patients require the most concentrated nursing care, and the unit is designed with this fundamental requirement in view. Between 2 and 5 per cent of total hospital beds excluding maternity beds should be assigned to the intensive care unit.

Space requirement for each bed is planned on a more liberal scale than in general ward. But under no circumstances should it be less than 14.00 m² for single bed cubicle, 21.00 m² for two bed cubicle and 30.00 m² for four bed cubicles, to ensure free movement of staff and various types of equipment around the bed.

Each bed has arrangement for screening it off from others by screens hanging from overhead rails. The whole unit should preferably have central air-conditioning or individual room air-conditioners of suitable capacity.

The average duration of stay of patients in intensive care unit is short and their dependence on other so complete, that it does not need the toilet facilities on the same scale as provided in other wards. Therefore, there is no necessity to have a sanitary annexe. Dirty utility would remain the same. Life-saving emergency equipment, drugs and supplies from CSSD have to be constantly at hand and readily available. Because of a continuous requirement of such supplies, the intensive care unit cannot do without a clean utility room.

The number of outlets for piped oxygen and suction should be liberal—one for each bed. Each bed should also have its own wall-mounted blood pressure apparatus. Sockets for electrical and electronic equipment will have to be on a liberal scale than a general ward. At least four power sockets in addition to two standard sockets should be provided for each bed.

The nursing station is constructed to allow for maximum visibility from the nurse's desk through use of glass partitions. For this to be effective, the nurse's station should be located on an elevated platform.

For all the life-sustaining equipment to function at all times, the unit needs and alternate source of electricity. If this is not provided through a multiple grid power supply to the

hospitals, either a UPS facility or a standby generator with provision for automatic switchover on failure of the mains is a necessity.

8.21 Nursing Shift Scheduling

1. The night shift should be 2 nights at a stretch
2. The nurse on night duty is admissible to take rest during the day
3. Schedule the night shift from 8pm to 8am-12 hours nights
4. Feeding mother should do night shift after one year of breast feeding
5. The night duty can be exempted for nurses
6. who attains 50 years and above?
7. Health condition requiring rest as recommended through medical advice
8. Expecting nurse from 140 days (4.3 months) before the due date of delivery

Weekly Off

Nurse will receive weekly off once in a week

Weekly off and Government holidays will be on any days

Feeding Time

Nurse shall be entitled for one hour feeding time after six months maternity leave during day and evening shift and night duty for two hours till the child attains two years (night duty will resume after the child attains one year)

8.22 Barrier Nursing

In nursing highly infectious disease patients, the aim is appropriate nursing care of the sick person, preventing spread of infection to others and preventing infection to medical and nursing personnel. All this can be achieved with barrier nursing. A placard announcing 'Barriered' is hung at a prominent place to warn the visitors and nursing personnel. A barriered cubicle is made up of the patient bed, bedside locker, cupboard, and a chair. The scale of accommodation suggested for barriered patients is 120 sq ft for a single cubicle, 90 sq ft each for 2-bedroom and 80 sq ft each for 4-bedroom.

The two important fixtures in this unit are the disinfectant for clothing, blankets, and linen of the patient and a steam sterilizer for patients' utensils. Adequate number of gowns, caps and masks and gloves for nursing and medical personnel are placed at the entrance of each

barriered patient cubicle. A fresh set of gown, cap and mask (and gloves) has to be used every time someone enters a barriered patient's cubicle/ room.

Other applications of barrier nursing are in premature nursery and neonatal ICU, maternity ward (septic abortion), open heart surgery cases, organ transplant and immune suppressed cases, septic postoperative cases, acutely ill patients in intensive care areas, highly communicable or contagious cases, e.g. terminally ill AIDS patients.

8.23 Summary

The major responsibilities connected with the administration of the nursing service are that the nursing services are well organized to fulfil the functions. The essential features of sound nursing service administration are: written statement, purposes and objectives of nursing service, plan of organization, policies and administrative manual nursing service budget, master staffing pattern, plan for appraisal of nursing care, nursing service administrative meetings, adequate facilities, supplies and equipment, written job description and job specification, personnel records, health record, in-service education and coordination. Good planning and administration of nursing services is solely dependent on these features without which the organization of nursing services cannot be made sound.

8.24 Key words

Intensive Care Unit

The most critically ill patients require the most concentrated nursing care, and the unit is designed with this fundamental requirement in view. Between 2 and 5 per cent of total hospital beds excluding maternity beds should be assigned to the intensive care unit.

Patient Monitoring

Electronic monitoring is being increasingly introduced especially in intensive care and postoperative recovery wards. The equipment varies from single units for individual patients to large complex system giving multiple patient observations on viewing screens and recordings and tracings on paper and tape.

Auxiliary Accommodation

A ward laboratory (clinical side room) to perform routine blood, urine and other tests by house surgeons and interns for quick results is required in wards of teaching hospitals.

Isolation Room

If adequate safeguards are provided for protection of the patient and personnel, any patient room can be converted into an isolation unit.

Nursing Station

Location of the nurse's station as close to the patients but as central as practicable is important for the cohesive functioning of a nursing unit.

8.25 Self-Assessment Questions

1. Describe the Nursing Duties in the Hospital
2. Briefly Explain the Nursing shift Scheduling?
3. Outline the Guiding Principles of Nurses?

8.26 Suggested Reading

1. Sakharkar, B.M., & Jaypee Brothers (Jaypee Digital) (2009) Principles of Hospital Administration and Planning, (Jaypee eBooks), Jaypee Brother Medical Publisher Private Limited.
2. Hospital Administration (2017) DC Joshi and Mamata Joshi Jaypee Brothers Medical Publishers (P) Ltd.; 1st edition
3. Hospital and Healthcare Accreditation (As Per the Guidelines of NABH, NABL, JCI) (2018) Brajkishore Rajoriya Six Sigma Star Healthcare (P) Ltd, New Delhi, India; NABH, NABL, JCI.
4. Performance Improvement in Hospitals and Health Systems: Managing Analytics and Quality in Health care (2018) James R. Langabeer II CRC press Taylor and Francis Group Productivity Press Book.
5. Service Quality for Facilities Management in Hospitals (2016) Low Sui Pheng & Zhu Rui (auth) Low Sui Pheng & Zhu Rui (auth.) Springer Publications
6. Introduction to Health care quality Management (2009) Patrice Spath AUPHA press Washing Ton PC.,

LESSON -9**SUPPORTIVE SERVICES****Learning Objectives**

- To study the Functions of Pharmacy
- To learn the Responsibilities of Chief Pharmacist
- To Discuss the Functions of CSSD

Structure**9.0 Introduction****9.1 Functions of Pharmacy****9.2 Responsibilities of chief Pharmacist****9.3 Medical Stores****9.4 Staffing**

9.4.1 Good House Keeping

9.4.2 Ward size & Configuration

9.5 CSSD- Central Sterile Supply Department

9.5.1 Functions of CSSD

9.5.1.1 Physical Facilities

9.5.1.2 Staffing

9.5.1.3 Equipment

9.5.1.4 Policies and Procedures

9.5.1.5 Responsibility

9.5.1.6 Disposables

9.5.1.7 Segregation of sterile & Unsterile supplies

9.5.1.8 Standards of Packs

9.5.1.9 Packaging Procedures

9.5.1.10 Manual of Operations

9.5.1.11 Packing Material

9.5.1.12 Autoclaving

9.5.1.13 Quality control- sterilization in check

9.5.1.14 sterility Indicator

9.5.1.15 Shelf-Life

9.5.1.16 Chemical sterilization by Ethylene Oxide

9.5.1.17 Sterilization process

9.5.1.18 CSSD Distribution System

9.6 laundry Equipment

9.6.1 Washing Machines

9.6.2 Hydro extractor

9.7 Security**9.8 Transportation services****9.9 Summary****9.10 Key words****9.11 Self-assessment Questions**

9.12 Suggested Readings

9.0 Introduction

Purchase of drugs and maintaining a satisfactory inventory of drugs, chemicals and biologicals accounts for a substantial amount of money, next only to salaries and wages. Approximately 20 per cent of the hospital costs, i.e. more than half of the material budget are accounted for by medicines and pharmaceutical supplies. Availability of the right drug at the required place at the time of need is the key to the hospital's existence. Delays can be disastrous, and the effects of nonavailability of the right drug at the right time can be horrifying in terms of mortality and morbidity. A high percentage of expenditure of the hospital on pharmaceutical stores and the harmful effects of a poor pharmacy service emphasise the need for very careful attention to the effect of pharmacy service on clinical services in the hospital. There should be a properly organised pharmacy department under the direction of a professionally competent and qualified pharmacist.

9.1 Functions of The Pharmacy

The functions of the hospital pharmacy service are as follows

1. Provisioning, purchasing, storing and distributing drugs, medicinal preparation, chemical and pharmaceutical sundry items
2. Ensuring potency and quality of drugs during their storage in hospital
3. Dispensing prescriptions to inpatients and outpatient, making preparations to be used in dispensing prescriptions, ensuring quality control
4. Maintaining information regarding quality, cost and sources of supply of all drugs, chemicals and other items for information of medical, nursing and other staff
5. To investigate pharmaceutical problems arising in the use of medications
6. Ensuring adherence to the laws, acts, rules and regulations applicable to pharmacies and dispensing
7. To promote economy in the use of medicines and establishing accounting procedures for pharmacy charges and supplies
8. To keep a watch on the adherence by all concerned to hospital formulary.

9.2 Responsibilities of Chief Pharmacist

The pharmacist in charge of the department is responsible for the following:

1. The dispensing of drugs, chemicals and pharmaceutical preparations
2. Maintenance of an approved stock of antidotes and other emergency drugs
3. Dispensing of all narcotic drugs and ensuring proper accounting systems for them
4. Inspection of all pharmaceutical supplies at user points
5. Specifications of all drugs, chemicals, antibiotics, biologicals and pharmaceutical preparations
6. Establishing a system of records and book keeping in cooperation with the accounting department for patient charges and for control
7. Preparing pharmacy policies and procedures in consonance with the established policies of the hospital
8. Cooperating in teaching and training programmes for student nurses and interns
9. Implementing the decisions of the therapeutics committee
10. Preparing periodic reports and returns on the utilisation of pharmacy services

9.3 Medical stores

Communication between medical, nursing, pharmacy and administrative staff about standards, methods of prescribing and availability is essential to reduce use of irrational drugs, misuse of drugs, date expired drugs and high prices. Therefore, for efficient functioning of the pharmacy service, it is necessary to have an advisory as well as decision-making group consisting of the medical and nursing staff who are the users of the service, the chief pharmacist who is the provider of the service, and the administrator.

Towards this end every hospital should have a Drugs and Therapeutics Committee.

The purpose of the committee is as follows:

1. The foremost purpose of this committee is to prepare the hospital formulary of accepted drugs for use in the hospital
2. Selection of manufacturers and suppliers

3. To act as an advisory group on matters pertaining to the choice of drugs to be stocked, or to be added or deleted from the list of drugs accepted for use in the hospital
4. Framing of the overall policy of the pharmacy service for information of all concerned and monitoring its implementation
5. Consideration of preliminary budget for the pharmacy
6. Development of drug information system.

Composition of Drugs and Therapeutics Committee

The committee should have representatives of all groups concerned with the service. At the minimum, it consists of the following.

1. Hospital administrative/medical Superintendent— Chairman
2. Head of medical department
3. Head of surgical department
4. Head of obstetric and gynaecology department
5. Head of paediatric department
6. Nursing superintendent
7. Chief pharmacist—secretary.

For a new hospital, the committee will have to meet very often in the beginning to prepare the hospital formulary which may take anywhere from three to six months. Once the formulary has been completed, it should meet at regular intervals.

In normal course, the committee should meet once every month to evaluate requests for addition or deletion of drugs in the formulary, drugs, to review stocking levels of drugs stocked at the nursing units, and discuss adverse reactions to drugs

9.4 Staffing

The number of pharmacists and other staff needed for the efficient functioning of the pharmacy will depend upon the programme, policies, range of services, the size of the hospital and its workload. Apart from the chief pharmacist, there will be a requirement of one pharmacist for a 100- bedded hospital.

Table 9.1 Estimated requirements of Hospital pharmacist

<i>Size of hospital (Beds)</i>	<i>No. of Pharmacists</i>
100	2
200	3
300	4
400	5
500	7
600	9

In the development of staff, the following factors should be borne in mind.

1. Technical work which does not need to be undertaken personally by a pharmacist should be carried out by pharmacy technicians under the direction and control of pharmacist.
2. Much of the semiskilled work can be carried out by In service trained staff.
3. Clerical and store-keeping duties should, where possible, be carried out by correctly graded staff, not by pharmacists.

9.4.1 Good Housekeeping

Cleaning of walls, floors, window panes, window sills, bedside screens and tables, curtains and fixtures including bathroom fixtures should be organised as a scheduled programme at predetermined intervals. Use of appropriate disinfectants must be made at such times.

9.4.2 Ward Size and Configuration

It is common to plan ward accommodation in multi storeyed buildings, each floor plan resembling a template of the plan on the floor above. However, many hospitals have inpatients areas horizontally spread in single or two-storey building linked by horizontal corridors. Although horizontal planning has limitations, it saves time in internal movements than is possible with a vertical inpatient block without lifts. The upper limit up to which a horizontal layout may have many advantages is between 150 and 200 beds. Beyond that, arrangement of wards in a vertical fashion will be more advantageous.

The optimum size of a nursing unit should primarily depend on the number of patients the nursing team can manage effectively. Smaller units are expensive to build and uneconomical to maintain, as are too large units. A 10-bed unit would require the same type of

equipment, facilities and ancillary rooms as a 20-bed unit. Therefore, the possibility to plan for certain type of accommodation— treatment rooms, sluice room, pantry, toilet facilities, - etc. to be shared between two or more units should be explored.

The dilemma to choose between a large open type of ward and a unit divided into smaller rooms is faced by every hospital planner. Apart from the fact that nursing units with smaller rooms give a feeling of privacy and comfort they also allow for flexibility in the use of beds. On the other hand, they call for large staff and are difficult to supervise. Economy in the deployment of nursing staff precludes adaptation of smaller wards system on a universal scale, and communal wards of larger number of beds may have to be retained in many hospitals, relegating the concept of privacy to the background in some cases.

The concepts of personal privacy are variable. Degrees of privacy desired is a function of family values and socioeconomic status. In a society where crowded living conditions force a lack of privacy, or where privacy has never been experienced, privacy norms need not be as elaborate as in situations where they are a realistic social requirement. On the other hand, planning of ward design on the concept that all people are equal, and that if they are unequal, they can be equalised, can also lead to problems.

More private and personal facilities would, however, be a distinct feature of private hospitals.

A ward floor of 60 to 100 patients subdivided into two or three ward units—each cared for by a nursing team is functionally quite efficient. In a large hospital, grouping of wards in one area on each floor has distinct advantages. In multi-storeyed buildings, the shape of each floor imposes itself upon the one below. Besides economy in building costs, the advantage is a compact hospital. The buildings go up to a fair number of floors. It is necessary to carefully weigh the advantages and disadvantages of concentrated and therefore high rise versus diffused type of ward areas. In multi-storeyed buildings, it is difficult to make provision for growth and change—very little space will be available for each unit to expand into.

Many different types of floor plans for wards have been adopted by various hospitals. The plan most suited according to the need should be selected after study of prevailing trends and extensive discussion with the architect.

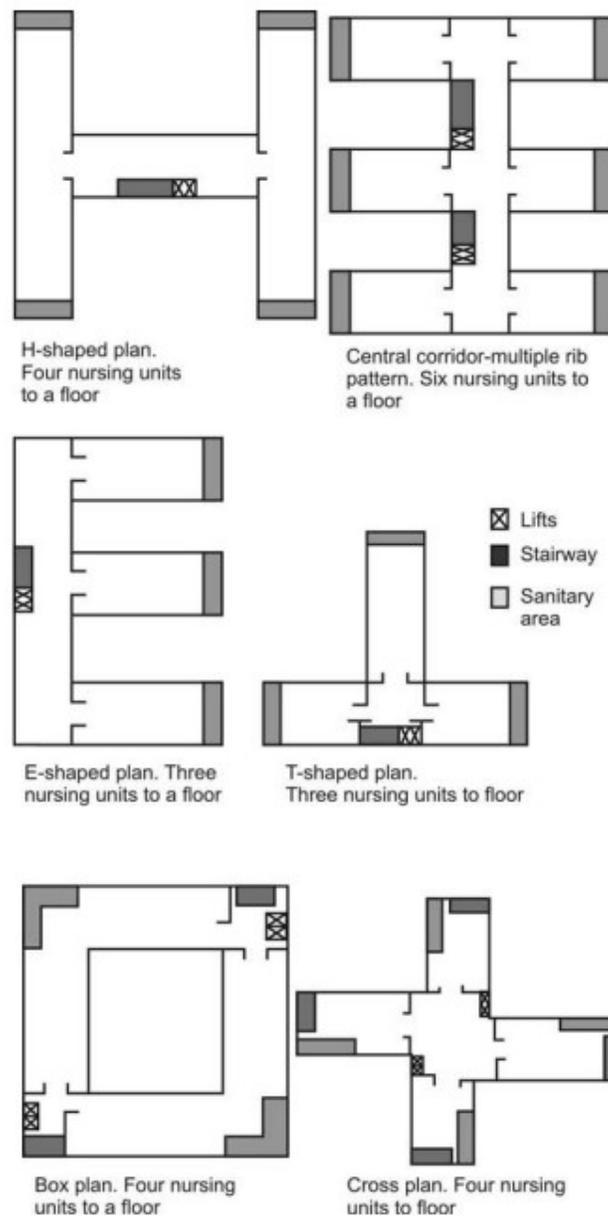


Figure 9.1 Outline floor plans for ward floors

Within a ward the plan now generally accepted provides for grouping of patients into 6-bed and 4-bedrooms, together with a small number of 2-bed and 1-bedrooms for more serious patients and for patients requiring segregation from others for various reasons. Upto 20 per cent of the beds in a ward should be located in single bedrooms. This type of ward divided into small rooms of 6, 4 and 1 bed each, the beds being arranged parallel to the longitudinal wall of the ward, is called the Rig's pattern ward. By planning beds parallel to the exterior wall, the

undesirable necessity of the patient facing an interior wall or the glare from the windows is eliminated.

9.5 CSSD-Central Sterile Supply Department

Ensuring a high standard of sterilisation and disinfection to minimise the incidence of hospital infection has been uppermost in the minds of clinicians as well as hospital administrators. In the past, sterilisation of syringes and other items of routine use in wards and operation theatres were done by boiling or in low pressure steam sterilisers. However, the advantages of centralisation of all sterile supplies through one unit have been realised by all hospitals for ensuring sterilisation safety and quality control.

Standardisation of surgical dressings and centralising all surgical supplies from one point of origin were necessitated during the Second World War because of the requirement of a large number of casualties in different theatres of war. In order to cater to the needs of mobile surgical units operating in forward areas during the war, the concept of a sterile supply organisation, in the form of an independent unit or as one attached to large base hospitals came into being.

It was common practice till the recent past to plan and provide autoclaves, boilers, stills and sterilisers centrally for the main users, viz. operation theatres, with subsidiary equipment of lower capacity for nursing units. There was the ever-present chance of tardy quality control because nursing staff could not devote full attention to these activities in addition to their direct patient care activities. Therefore, sterilisation activities in a hospital are better centralised in one single department for efficiency and effectiveness. This department, called the central sterile supply department (CSSD) becomes responsible for processing, sterilising and dispensing of almost all items of sterile equipment, sets and dressings in the hospital.

Centralisation of sterilising activities in one department has resulted in many advantages. The chief among these are improved efficiency, sterile supplies available at all times of the day or night, economy of trained manpower, as it is no longer necessary for nurses to waste their time in sterilisation activities, sterilisation safety and quality control.

9.5.1 Functions of CSSD

Broadly, the functions of the department are as follows.

1. To receive and process used and unsterile supplies and sets from nursing units, OPD, operation theatres, labour rooms, etc.
2. To sterilise and dispense sterile articles to user units
3. To maintain an uninterrupted supply of bacteriologically safe supplies at all times
4. To undertake studies for improvement of sterilisation practices and processing methods to provide supplies economically
5. To impart training to hospital personnel in safe hospital practices
6. To participate in hospital infection control programme
7. To advice hospital administration on suitability of supplies and equipment from sterilisation point of view.

The planning of CSSD must conform to the sequence of work starting from the reception of materials to their despatch from the department. The sequence of events is as follows.

1. Materials are received into the department from various users (OT, wards, labour suite, nursery, etc.)
2. All used materials are cleaned—preliminary cleaning to remove blood, pus and other substances difficult to remove when dried up should have been done by the users before sending the articles to CSSD
3. Clean materials are inspected, assembled and packed, ready for sterilisation
4. After sterilisation, they are either stored in a sterile storage area or distributed directly as required.

The location of CSSD should be convenient to its principal consumers. These are the nursing units, labour suites and operation theatres. It should be so located that supplies and equipment are brought to and taken away by the shortest route.

The department can conveniently be located as part of the main service core of the hospital.
Space

A minimum of 7 sq ft on a per bed basis (with 100 sq ft for the smallest hospital) is considered essential for planning a CSSD with scope for future expansion and growth. The following area is recommended. The area will be divided into receiving and cleaning, clean work and

processing, sterilisation, syringes and glove processing, sterile storage, and issue. Needs for space for each of these differ by availability of mechanical devices and modern facilities.

Up to 100 beds	10 sq ft per bed
Up to 200 beds	9-10 sq ft per bed
Up to 300 beds	8-9 sq ft per bed
300 and above	7-sq ft per bed

Table9 - 2 Space required for planning a CSSD

These activities comprise of the following.

1. Receipt of used supplies
2. Accounting
3. Washing, cleaning and drying
4. Sorting
5. Gauze cutting and assembling
6. Packing
7. Sterilisation
8. Sterile storage
9. Issue.

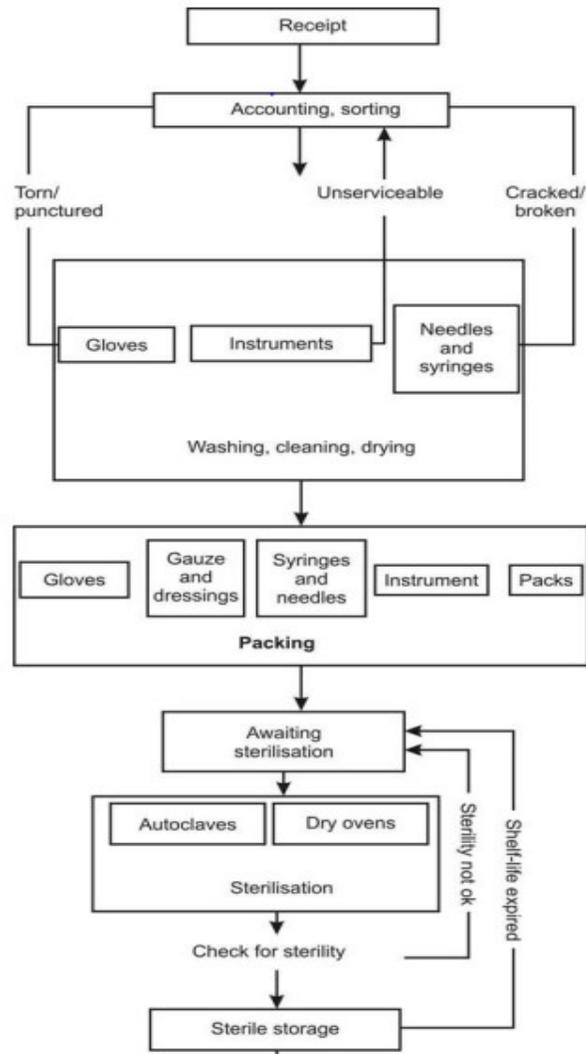


Figure 9.2 Flow chart of CSSD

9.5.1.1 Physical Facilities

The direction of work flow and economy of labour determines the layout of the physical facilities. Articles should move only in one direction through receipt, washing and cleaning, drying, sorting, reassembling and packing, sterilisation and storage. The following areas will be essentially required in the department. Although they cover most of the requirements, special requirements of a particular hospital should be kept in mind during the planning process

Table 9.2 Special Requirements of the Hospital

1. Receipt of used supplies	Reception counter for small items, parking place for trolley load
2. Cleaning and washing	Series of sinks with running hot and cold water, ultrasonic washer for instruments caked up with blood and for fine instruments
3. Sorting	Table space, next to washing area
4. Drying area	Table space, wires for hanging gloves
5. Gauze cutting area	Table space
6. Glove processing area	Table space, room for glove processing unit
7. Packing area	Table space
8. Storage area for items awaiting sterilisation	Shelves
9. Sterilisation	Autoclave room
10. Sterile storage	Storage room with shelves
11. Issue counter	
12. Change-room with toilet for workers	
13. CSSD supervisors room	

The nucleus of a CSSD may exist in every hospital in the form of a central autoclave room for sterilising ward dressing drums and operation theatre requirements. A further step is to add a central syringe department. The final step is taking on all other sterile supplies of all wards and departments.

Inputs for planning should be provided by a committee which should include representatives from administration, surgical staff, anaesthesiology, pathology and nursing. This committee should develop a written programme covering:

- i. the overall scope of the department,
- ii. departments to be served,
- iii. extent of services to be rendered,
- iv. process equipment to be procured,
- v. preparation of procedure manual, and
- vi. organisational and administrative structure of the department.

9.5.1.2 Staffing

There should be a properly qualified supervisor in charge of the department. The chief of the department, the CSSD supervisor, has traditionally been a senior nurse. However, this need not be the case. The supervisor can be a person from any other stream of hospital

personnel provided he or she has a grounding in the basics of patient care, bacteriology, principles of sterilisation and mechanical and administrative competence.

The routine work in the CSSD is of a repetitive nature. The other staff required are usually in-service trained CSSD attendants, semiskilled workers who can be called CSSD assistants, CSSD technicians and sweeper (safaiwalla). For the smallest department, a minimum of four persons will be required apart from the supervisor. A 200-bedded hospital with door delivery system to user departments would require 12 personnel. While working out the requirement of personnel, leave reserve and off-duty reserve should also be considered. A 500-bedded teaching hospital has the following staff.

- Technologists 5
- Technical assistants 4
- Nursing aides 4
- CSSD attendants 4

The number of workers will be influenced by the following.

1. Method of collection and delivery
2. Quantum of work—one shift, two shifts, or one shift with only emergency issue counter after normal working time
3. Hospital's philosophy on use of disposables
4. Availability of mechanical aids.

The supervisor should be fully conversant with the activities and policies of all the user departments of the hospital.

9.5.1.3 Equipment

The main item of equipment in the CSSD is the autoclave. At least one additional autoclave other than the main one should be provided to cater for failure or extra workload. Various type of autoclaves are available. Manufacturer's instruction for installation and operation must be clearly understood. Most modern electric autoclaves are designed to achieve a vacuum in the sterilisation chamber followed by injection of steam under controlled pressure to achieve desired temperatures for varying periods, and have recording devices. Walk-in type

of autoclaves are available which are suitable for the requirements of very large hospitals. Other equipment in the CSSD includes the following.

- a) Dry oven
- b) Gauze cutter
- c) Ultrasound washer
- d) Needle flushing device
- e) Autoclaves
- f) Ethylene oxide steriliser
- g) Work benches with marble or stainless steel top
- h) Storage cupboards and racks
- i) Linen folding table
- j) Soaking sinks
- k) High pressure water jets

9.5.1.4 Policies And Procedures

Central sterile supply is most effective when it provides a limited basic range of articles for the greatest possible number of users. A periodical review should be made of the items processed by the CSSD to assess which ones can be modified to meet a wider range of needs and whether any can be dispensed with altogether. Once this basic need is catered for, any additional need can be met by providing supplementary packs containing particular dressings or materials.

The list of items and special trays commonly processed in the CSSD are as follows.

- 1) Instruments
- 2) Appliances
- 3) Dressings
- 4) Sponges
- 5) OT linen
- 6) Special packs
- 7) Gauze and cotton materials
- 8) Gloves
- 9) Bowls and trays.

CSSD is one department where policies and procedures must be unambiguous and scrupulously followed in letter and spirit. The smallest mistake or carelessness on part of the staff can have serious repercussions elsewhere in the hospital. The policies should cover the following:

9.5.1.5 Responsibility

The responsibility for supervision of sterilising tasks should be clearly understood and vested under one person. Due to repetitive work, workers may be tempted to be careless in sterilisation procedures and differentiation between sterilised and unsterilised packs. It is impossible to differentiate between similar looking contaminated, potentially contaminated or sterile packs packed in linen paper wraps. In case of doubt, it is a safe practice to treat all unused articles as contaminated, and re-process or sterilise them.

9.5.1.6 Disposables

The advantages and disadvantages of using disposables should be fully taken into account when considering the replacement of traditional materials by their disposable equivalents, remembering that some disposables give more value for money, while as some others have no specific advantages.

9.5.1.7 Segregation of Sterile and Unsterile Supplies

Sterile supplies and packs and contaminated articles should never be carried on the same trolley or by the same staff. The term “sterile supplies” covers all articles which have either been sterilised in CSSD or disposable sterile packs distributed through CSSD.

9.5.1.8 Standardisations of Packs

Special trays and sets to be processed by CSSD should be standardised by the hospital. Surgical instruments and other related items needed for commonly practised surgical procedures generally do not vary from surgeon-to-surgeon. Such operations are appendectomies, cholecystectomies, exploratory laparotomy, cataract surgery, nasal surgery, ear surgery, hysterectomies, tubal ligations, etc. We should develop a composite pack for each surgical procedure, such a pack should contain all items the surgeon and nurses require for a procedure.

In standardising, the aim is to have a standard surgical pack containing all the items required for that procedure by the operating surgeon. This system has the advantage of having standardised sets ready at hand even for emergency operations, irrespective of special preferences of a particular surgeon. Besides these, the other commonly used sets (or packs) of sterile instruments and materials in various other procedures that are generally standardised are as follows.

- a) Cut-down set b) Lumbar puncture set c) Sternal puncture set
- d) Catheterisation set e) Bladder wash set f) Liver biopsy set
- g) Fine-needle aspiration cytology (FNAC) set h) Paracentesis set
- i) Suturing set j) Thoracic aspiration set k) Incision and drainage set
- l) Tracheostomy set.

In order that the most economic method of providing the packs can be established, cost comparisons should take place from time-to-time, between packs available from commercial sources and those prepared in the CSSD.

The possibility of purchasing a standard range of dressing packs and materials from trade sources should also be kept under review.

9.5.1.9 Packing Procedures

Step by step packing procedure for each pack should be determined, and should specify:

- i. the quantities of materials required and their arrangement on the workbench, and
- ii. the sequence of the packing operation.

Fifteen sq ft of packing space is necessary on each workbench for assembly of simple packs with a high throughput, with some storage space above the bench. Workbenches should be so designed to keep packing movements to minimum, with storage of materials either on shelves or above the bench within easy reach of the packer.

9.5.1.10 Manual of Operations

A procedure manual listing all procedures followed in the CSSD for each process and their correct sequence is essential for effective operation of the department. It must be realised that more costly and sophisticated the equipment, more training and precision is required to operate it.

9.5.1.11 Packing Material

Packing material used as wraps for articles for sterilisation differs with the process of autoclaving or hot air oven.

Linen and kraft paper are commonly used, paper being a better bacterial barrier. In case of paper, it is desirable to have a double paper wrapping. Although kraft paper is usually used, but even newspaper have been effectively used. The wrap should be easy to open without spilling the inside items. If paper is used, it may be finally wrapped with linen or placed in a cardboard box for autoclaving. Articles for hot air sterilisation can be kept in suitable stainless-steel containers. Syringes and needles are packed in paper wrappers. Gloves can be packed either in paper or linen.

9.5.1.12 Autoclaving

Use of saturated steam under pressure is the safest and dependable method of sterilisation, in universal use for destruction of all forms of microorganisms. The higher the temperature the more rapidly is sterilisation accomplished. The minimum time and pressure for sterilisation by autoclaving process is 121°C at 15 lbs psi in 15 minutes. If the temperature is raised to 126°C, the time can be reduced to 10 minutes. At 134°C, it is 3 minutes, and only a minute at 150°C. The last process is utilised in “flash sterilisers” installed in some operation theatres for spot sterilisation of urgently required instruments during operation. Incomplete penetration of steam can occur because of overloading the autoclave or incorrect positioning of packages inside the autoclave. There is no such thing as “almost sterile”. An object is either sterile or not sterile.

9.5.1.13 Quality Control: Sterilisation Checks

In spite of the process instruments fitted on autoclaves which give a graphic record of temperature and pressure, routine methods of check for sterilisation must be incorporated. Colour index strips available for this purpose should be kept in each pack being autoclaved. Manufacturer’s instructions must be followed scrupulously regarding loading of autoclaves, temperature and pressure Levels and timings.

9.5.1.14 Sterility Indicators

Mechanical indicators which are monitoring instruments record time, temperature, humidity and pressure during the sterilisation cycle.

Chemical indicators are devices with a sensitive chemical or dye to monitor one or more parameters of a sterilisation cycle.

Biological indicators employ the principle of inhibition of growth of microorganism of high resistance to the mode of sterilisation. Subsequent failure of growth of microorganisms indicates adequacy of sterilisation

Articles should not be considered properly treated unless the time, temperature and pressure indicators indicate that the required time, temperature and pressure were reached during the autoclaving process. If not, the entire load of articles must be autoclaved again, until the required temperature pressure and residual time are achieved again.

No single method is capable of monitoring completely all parameters necessary for a fool-proof sterilisation. Recording instruments on the autoclave which give a progressive graphic record of temperature, pressure, etc. can be inspected immediately after a load has been autoclaved. In addition, chemical indicators change colour when conditions necessary for sterilisation have been met. These are available as tapes and strips, and are attached or implanted inside the packing material. This should be supplemented with periodical use of biological indicators to detect (which may take several days) failure of the autoclave. To achieve a high degree of certainty that the autoclave is functioning properly, biological indicators should be placed in the most inaccessible location in the load and then cultured. They provide positive assurance, albeit retrospectively, that each package has been subjected to proper sterilising conditions.

9.5.1.15 Shelf-life

The shelf-life of sterilised packs, i.e. the time for which it can be stored safely before use, should be determined by a committee of experts including a bacteriologist. If the pack is not used, during its shelf-life, it should be again put through the autoclaving process without being opened. Although a pack can remain sterile for up to four weeks on the CSSD shelf, experts are of the opinion that it should be re autoclaved without opening after one week.

9.5.1.16 Chemical Sterilisation by Ethylene Oxide

Ethylene oxide (EO) is a gas which is now commonly used as sterilising agent for heat-sensitive and moisture-sensitive materials like rubber, plastics and fibreglass. Effective sterilisation by EO depends upon the following.

Concentration of gas: 450 mg/litre or higher is essential for complete sterilisation.

Temperature: Exposure time can be reduced by increasing the temperature. Two temperature ranges are generally provided in the EO sterilisers 49° to 63°C and 30° to 37.8°C.

Humidity: In automatic sterilisers, steam is injected under vacuum before admitting the gas. In some a wet gauze or sponge is required to be placed. Other sterilisers depend on ambient humidity, and compensate for lower moisture by a higher exposure time.

Packing: The type of wrapping used should be penetrable by ethylene oxide and water vapour. Polyethylene is commonly used for loose wrapping.

Period of exposure: In automatic sterilisers, the time ranges from 110 to 260 minutes. Up to 12 hours may be required in others.

Manufacturer's instructions must be followed meticulously as regards above parameters for effective sterilisation of different types of equipment.

Ethylene oxide sterilisers generally fall into two categories-manually operated and automatic. The source of the gas is provided by large compressed gas cylinders or by a unit dose cartridge sufficient for one cycle. Simple sterilisers carry out sterilisation at room temperature and ambient humidity, with single-use glass ampoule of ethylene oxide seated inside a gas-release bag. On breaking, liquid ethylene oxide vaporises and diffuses out of the gas-release bag into a larger bag in which the material to be sterilised has been placed. This bag performs the function of diffusing chamber and allows the gas to retain long enough to achieve sterilisation.

9.5.1.17 Sterilisation Process

After the steriliser chamber is sealed and the controls set, sterilisation process goes through the following phases:

1. Warming the chamber
2. Evacuating residual air to partial vacuum
3. Introduction of moisture to ensure that it penetrates wrappings and material
4. Introduction of EO
5. Raising the temperature (if required)
6. Exposure for the required time
7. Release of chamber pressure
8. Removal of the gas under vacuum (called the "Purge cycle")
9. Reestablishment of atmospheric pressure by introduction of filtered air into chamber.

9.5.1.18 CSSD Distribution System

Distribution system for sterile article should also be decided at the planning stage itself. The following four systems are in use. The last two are door deliveries.

Clean for dirty-exchange: A sterilised articles is issued at the CSSD issue counter on return of a used one at any time. Requisition system: Articles needed are requisitioned by users on a daily or regular basis and collected by them at CSSD counter.

Grocery system: Each user's requirements for all items for a specific period are delivered at suitable interval irrespective of whether the contents have been used or not and the previous basket or container withdrawn.

Quota system: Predetermined stock levels (quota) of various items for each user unit are maintained by delivery personnel from CSSD through regular deliveries. The choice of system will ultimately be dependent on local circumstances. A combination of the systems may be more appropriate in most hospitals. Depending upon the size and requirement of each hospital, the department may have to work in more than one shift. If the department works on only one full shift, then provision for issues of required packs outside of normal working hour will have to be made. In smaller hospitals, this task may be assigned to the casualty or emergency department who would then be stocked at levels over and above its own requirement

9.6 Laundry Equipment

Laundry equipment should be arranged to provide an uninterrupted flow of linen from the soiled-linen room through the laundry to the clean linen storage. Washing machines should be placed adjacent to the soiled linen room, and the extractors close to the washer

9.6.1 Washing Machines/Washers

Two types of washers are in use—side-loading and endloading. Side loading type comes with open pocket cylinder, with or without cylinders, horizontal partition equipped with cylinders, and unloading type cylinders. Side-loading and end loading washing machines

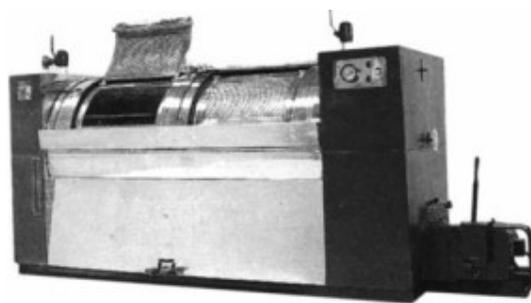


Figure 9.3: Side loading washing machine



Fig 9.4: End washing Machine

End-loading machines are suitable for smaller laundries as they have a compact body and a space saving design.

Side-loading machines are of heavy-duty design, ideal where machines are used almost continuously. Capacities vary from 15 to 150 kg. Steam or electrical heating is available in both.

Washers should be placed adjacent to the soiled linen room and the extractors next to them.

A washing machine will generally produce six to eight loads per day. At least one or more large washer should be provided for the main load, with a smaller one to take care of special work in small quantities and odd lots.

Drains are required in the floor to receive water from washers. Drains should be of sufficiently large size, usually ten inches deep and broad, and should have removable screens to catch lint. Otherwise, accumulation and trapping of lint in the drainage system can result into clogging of the drainage system.

9.6.2 Hydroextractor

Hydroextractors, also simply called extractors, work on the same principle as a centrifuge for easy removal of water after the washing cycle in the washer. Capacities vary from 7 to 70 kg. A suitably placed shakeout table is used to separate the linen into various categories as it comes from the extractors. It should be located in such a way that it can be easily reached from the extractor and from where linen can be transported to other areas



Fig 9.5: Hydroextractor

Extractors should be located next to the washers because the linen to be transferred to the extractors is dripping wet.

Good vibration insulation is required for the foundation of these machines because these are self-balancing machines, with floating suspension. A heavy concrete base flush with the floor is satisfactory for this purpose. Washer-cum-Extractor (Fig. 24.4) This is a combination of a washer and an extractor in one unit. As the name suggests this equipment eliminates the use of hydroextractor as it combines the work of washing and extracting. Washer-extractors are offered by manufacturers for steam or electrical operation, and also with combined steam and electrical operation. At least one such machine in addition to all other machines is an asset for loads of small items which are to be urgently washed



Fig 9.6: Washer-cum-extractor

Dryer or Trumbler A hydroextractor extracts almost 80 per cent of water from the linen, still leaving wet to a varying degree. A dryer brings the linen upto an almost dry state. Generally available in an end-loading design their function is to dry the linen with forced draughts of hot air thrown over a continually rotating and tumbling load of linen. Tumblers come both with steam or electrical heating. One or more tumblers are required for rough finished work such as for OT linen. Two smaller machines are considered preferable to a single large one. In as much as they handle a large part of the wash which may not need ironing. It is desirable that they be located near the clean linen room. It can be located near a door into the clean linen room to reduce the distance which the rough, finished linen must be moved.

The air from dryers must be exhausted above the roof and the system equipped with lint catchers



Figure 9.7: Dryer

9.7 Security

In addition to performing many other roles including promoting health behaviours of patients, the professional nurse in the acute care setting performs functions that are primarily curative and restorative in nature. The nurse's role includes diagnosis as a basis for planning, providing, directing, collaborating in, and evaluating direct patient care. As a helping profession, nursing's ideal characteristics includes the ability and commitment to respond with compassion to human needs and society's expectations for health care services.

The attitude of the head nurse towards her patients is of paramount importance-never for a moment is she or members of her staff are supposed to forget that they are dealing with human beings, not diseases. A disease or disorder affects each person in a different manner depending upon his attitude, his previous experience with hospitals as patient, and the sociocultural pattern of his life. To render understanding care the nurse must appreciate the factors which influence attitudes and the need of the patient for respect of his individuality.

Patients, as a rule, wish to maintain a degree of self-dependence and resent having no choice but to accept whatever is being told to them.

Adults who have been accustomed to ordering their own lives and making their own decisions dislike being treated as children and being expected to accept without question that which the doctor or nurse chooses to do them.

Explanation of medical treatment are not infrequently left to the nurse. Never should she command or by her manner make patient feel that he has no alternative but to comply.

During convalescence the patient needs something to occupy his mind, be it pleasant companions or even assisting with the work of the ward. He needs the sense of security that comes from a feeling that people are working together- doctors, nurses and others and not at cross-purpose. All this revolves around the work of the nurse.

9.8 Transportation Services

Directly providing transportation services based on the needs of the community, geography, and funding. Most transportation services are round-trip and provide transportation to the health center or social services from a patient's home or work site.

Community-Based Point Of Care

Point of care is the timely delivery of health care products and services to patients where they are located or receiving other services. Delivering care where the community lives, works, or spends time helps alleviate the need for some patients to travel to services.

Health Centre Infrastructure

Changing the infrastructure in which health services are provided at a fixed health care site can alleviate some transportation barriers to care. Infrastructure changes alone do not address the full range of transportation barriers and are often combined with other strategies.

Door-to-Door Transportation

Services Provide rides from a patient's home or work site to an appointment at the health center, with a specialist, or to see a social service provider.

Mobile Clinics

Operate mobile clinics that go where patients live or work through a vehicle, such as a van or bus, or through “backpack medicine,” where providers bring supplies into service areas by foot.

One-Stop-Shop

Provide a variety of health and social services in one location to ensure patients get the most out of one visit and to prevent the need for multiple trips to other providers.

Vouchers & Reimbursements

Give vouchers that allow patients to access public transportation or taxis for free or at a reduced cost and mileage reimbursements to support patients that are able to find friends or family to take them to a medical appointment

Clinics at Social Service Sites

Arrange health services through partnerships with community and social service organizations that patients frequent. These services can prevent patients from having to make an additional trip to the health center to receive medical care

Hours of Operation

Change the hours of operation to accommodate the needs of the community, such as extending hours to include weekends or evenings when friends or family are more available to provide rides.

Fixed-Route Shuttle Service Run shuttle services

on an established route that is convenient for many patients and include stops at various health and social service locations

Telehealth

Use telecommunication and information technology to provide clinical care at a distance. Guidance is transmitted to a direct service provider from an off-site clinician that has more expertise or resources. Telehealth often involves support from an outreach worker.

9.9 Summary

Each large hospital will need a pharmacy, with a well-qualified pharmacist in charge providing it with all the services listed under the functions of pharmacy. Small hospitals may not afford a full-fledged pharmacy service with a fully qualified pharmacist because of economic considerations. However, the advantages of such a service for efficient operations of the hospital have been realised by medical staff and administrators.

9.10 Key words

Medical stores - Communication between medical, nursing, pharmacy and administrative staff about standards, methods of prescribing and availability is essential to reduce use of irrational drugs, misuse of drugs, date expired drugs and high prices

Mobile Clinics - Operate mobile clinics that go where patients live or work through a vehicle, such as a van or bus, or through “backpack medicine,” where providers bring supplies into service areas by foot.

Autoclaving- Use of saturated steam under pressure is the safest and dependable method of sterilisation, in universal use for destruction of all forms of microorganisms

Laundry Equipment- Laundry equipment should be arranged to provide an uninterrupted flow of linen from the soiled-linen room through the laundry to the clean linen storage

9.11 Self-Assessment Questions

1. Briefly Explain the Functions of Pharmacy?
2. Elucidate the Functions of CSSD
3. Examine the types of Washing Machines

9.12 Suggested Readings

1. Sakharkar, B.M., & Jaypee Brothers (Jaypee Digital) (2009) Principles of Hospital Administration and Planning, (Jaypee eBooks), Jaypee Brother Medical Publisher Private Limited.
2. Hospital Administration (2017) DC Joshi and Mamata Joshi Jaypee Brothers Medical Publishers (P) Ltd.; 1st edition

3. Hospital and Healthcare Accreditation (As Per the Guidelines of NABH, NABL, JCI) (2018) Brajkishore Rajoriya Six Sigma Star Healthcare (P) Ltd, New Delhi, India; NABH, NABL, JCI.

4. Performance Improvement in Hospitals and Health Systems: Managing Analytics and Quality in Health care (2018) James R. Langabeer II CRC press Taylor and Francis Group Productivity Press Book.

5. Service Quality for Facilities Management in Hospitals (2016) Low Sui Pheng & Zhu Rui (auth) Low Sui Pheng & Zhu Rui (auth.) Springer Publications

6. Introduction to Health care quality Management (2009) Patrice Spath AUPHA press Washing Ton PC.,

LESSON -10**LEVELS AND ROLES OF HOSPITAL
MANAGEMENT****Learning objectives**

- To study the specific health needs of the patients
- To understand the Primary care, secondary care, Tertiary care
- To Learn the Role and Responsibility of Chairman of the Board, Board of Trustees, company secretary.

Structure

- 10.0 Introduction
- 10.1 Primary care
 - 10.1.1 Benefits of Rehabilitation in Primary Care
- 10.2 Secondary care
- 10.3 Tertiary care
- 10.4 Quaternary care
- 10.5 Role and Responsibilities of Chairman of the Board
- 10.6 Role and Responsibilities of Board of Trustees
- 10.7 Role and Responsibilities of Company Secretary
- 10.8 Role and Responsibilities of General Counsel
- 10.9 Role and Responsibilities of Treasurer
- 10.10 Role and Responsibilities of CEO
- 10.11 Role and Responsibilities of President
- 10.12 Role and Responsibilities of Upper Management
 - 10.12.1 The Final wrap up on Hospital Board Roles and Responsibilities
- 10.13 Governing Body
 - 10.13.1 The Governing body
 - 10.13.2 The CEO
- 10.14 Summary
- 10.15 Key words
- 10.16 Self-Assessment Questions
- 10.17 Suggested Readings

10.0 Introduction

Within the broader health system, there are various levels or domains of health care practice. They are often described as a pyramidal structure, with three or sometimes four tiers of health care representing increasing degrees of specialisation and technical sophistication, generally with increasing costs of care. The greatest number of patients are seen at the first level of primary care that is typically their first contact with the healthcare system, with

diminishing numbers of patients seen as they are filtered out of this first level into higher levels of specialised care at secondary, tertiary and now even quaternary care.

Primary, secondary, tertiary and quaternary care refer to the complexity and severity of health challenges that are addressed, as well as the nature of the patient-provider relationship. The healthcare providers who are part of these four levels of healthcare, together provide medical services such as evaluation, diagnostics, provision of treatment or onward referrals to the next level of care based on the specific health needs.

10.1 Primary Care

Primary health care is a people-centred rather than disease-centred service that addresses the majority of a person's health needs throughout their lifetime including physical, mental and social well-being. Primary care is generally the first level of care that patients receive when they have medical concerns or needs and takes a whole-of-society approach that includes health promotion, disease prevention, treatment, rehabilitation and palliative care. In most cases for patients this means being seen by a primary care physician, also called a general practitioner or family physician, although first contact care can also occur across a wide range of other health care professionals including a pharmacist, physiotherapist, speech and language therapist, etc depending on the specific health care system within your country. In many parts of the world, particularly in developing countries, people may currently access their first-contact care, where available at all, from non-medically personnel; who may have received some basic training in health promotion.

As health care systems attempt to meet the needs of populations living longer and with more complex health needs, and with health service delivery being shifted to the community, there has been an increasing emphasis on primary health care and it is generally recognised as the part of the health system that people use most and may be provided by a wide range of health care professionals. Continuity of care is a key characteristic of primary care, as patients usually prefer to consult the same practitioner for routine check-ups and preventive care, health education, and every time they require an initial consultation about a new health problem. So in many cases, the relationship between the patient and provider can often occur over a long period of time in primary health care versus secondary and tertiary care settings, with providers often following a patient's development and medical history for several years and sometimes most of their lifetime.

A primary care practitioner must possess a wide breadth of knowledge in many areas given that primary care involves the widest scope of health care, including patients of all ages, all socioeconomic and geographic origins, as well as patients seeking to maintain optimal health, and patients with all types of acute and chronic physical, mental and social health issues, including multiple chronic diseases. A primary healthcare service may diagnose and treat common health conditions within their area of expertise and have the ability to assess the urgency of the condition and refer the patient to other medical specialists where needed. Studies have shown that primary care providers benefit the healthcare system as a whole by offering enhanced access to healthcare services, better health outcomes, which tend to lead to a decreased use of emergency department visits and hospitalisation.

The World Health Organization attributes the provision of essential primary care as an integral component of an inclusive primary health care strategy and suggests that a primary care approach should include the following three components:

1. Meeting people's health needs throughout their lives;
2. Addressing the broader determinants of health through multi-sectoral policy and action;
and
3. empowering individuals, families and communities to take charge of their own health.

10.1.1 Benefits of Rehabilitation in Primary Care

Primary health care is where the diagnosis of a large majority of health conditions, the identification of problems in the functioning, and referral to other service delivery platforms need to occur. The following benefits can be listed among others:

1. Better quality of life.
2. Reduction of the prevalence and minimization of the disabling effects of chronic conditions among adults and children.
3. Facilitation of the continuity of care that supports full recovery.
4. Helps to lessen the risk of preventable complications and secondary conditions.
5. It can also help to avoid costly hospitalizations and re-admissions

Early access to rehabilitation through integration in primary health care helps to optimize outcomes, mitigate disability and improve people's ability to live independent lives. The World Health Organization's (WHO) emphasis on universal health coverage and its recent launch of

the Rehabilitation 2030 Call for Action are encouraging steps towards the goal of strengthening rehabilitation within the health system and in particular within primary health care.

10.2 Secondary Care

Secondary Health Care is the specialist treatment and support provided by doctors and other health professionals for patients who have been referred to them for specific expert care, most often provided in hospitals. Secondary care services are usually based in a hospital or clinic, though some services may be community-based. They may include planned operations, specialist clinics such as cardiology or renal clinics, or rehabilitation services such as physiotherapy. Secondary healthcare includes a wide range of specialists such as psychiatrists, cardiologists, obstetricians, dermatologists, paediatricians and gynaecologists.

Secondary care is more specialized and focuses on helping patients who are struggling with more severe or complex health conditions requiring the support of a specialist. Secondary care simply means you will be taken care of by someone who has more specific expertise about your condition. Examples of medical situations needing secondary care services include cancer treatment, medical care for pneumonia and other severe and sudden infections, and care for broken bones.

Depending on the policies of the national health system, patients may be required to see a primary care provider for a referral prior to being able to access secondary care, while in some health systems medical specialists may see patients without a referral, and patients can self-refer to the service, this is most common in countries with Private Health Care or Self-Pay Systems. Allied health professionals, such as physical therapists, respiratory therapists, occupational therapists, speech therapists, and dietitians, also generally work in secondary care, accessed through either patient self-referral or through physician referral.

10.3 Tertiary Care

Tertiary care, is a level above secondary health care, that has been defined as highly specialised medical care, usually provided over an extended period of time, that involves advanced and complex diagnostics, procedures and treatments performed by medical specialists in state-of-the-art facilities. As such Consultants in tertiary care centres have access to more specialised equipment and expertise.

Tertiary care can be available either at a Regional or National level, dependant on the size and resources available in the country. As a result most people may have to travel to reach a tertiary care centre, which may result in delayed diagnosis and treatment and increase the costs for health care. Referral for tertiary care services can come from both primary and secondary care health professionals and care is generally provided as an inpatient based service, although there are elements of care that can also be performed on an outpatient basis.

Examples of tertiary care services include specialist cancer management, neurosurgery, cardiac surgery, transplant services, plastic surgery, treatment for severe burns, advanced neonatology services, palliative, and other complex medical and surgical interventions.

1. This is the care that comes into the picture as a referral to patients by the primary and healthcare providers.
2. The individuals may require advanced medical procedures such as major surgeries, transplants, replacements and long-term medical care management for diseases such as cancer, neurological disorders.
3. Specialized consultive medical care is the highest form of healthcare practice and performs all the major medical procedures.
4. Advanced diagnostic centres, specialised intensive care units and modern medical facilities are the key features in Tertiary Medical Care.
5. The practices that provide tertiary medical care could be part of the government or a combination of both public and private sectors.

10.4 Quaternary Care

Quaternary care has been defined as an extension of tertiary care in reference to advanced levels of medicine which are highly specialised and not widely accessed, and usually only offered in a very limited number of national or international centres. Experimental medicine and some types of uncommon diagnostic or surgical procedures are considered quaternary care.

Like tertiary care, quaternary care also tends to have large catchment areas, often catering for individuals, not only countrywide but worldwide, particularly when providing care for very rare health conditions with small numbers of patients globally. This may have significant impacts for the patient with large distances delaying diagnosis and treatment with complications in the coordination of care between all healthcare providers involved in the patient's care, particularly after discharge when the responsibility for care typically returns to

the patient's primary care physician. Given the complexity or rarity in conditions of patients attending quaternary centres longer hospital stays and increased mortality may also be seen at this level of care.

Healthcare reform and increased regulatory matters are making healthcare more complex and challenging for board directors than ever before. Hospitals have varying types of leadership structures, depending on their size and whether they are private, for-profit entities or non-profit hospitals. In general, hospital care is changing from volume-based care to value-based care, which means that boards of directors need to make major changes in their objectives and strategic goals. In spite of all of the changes, boards must continue to focus their top priorities on financial sustainability for the hospital and quality of care for their patients.

Boards design their leadership structures to fill all of the needs of the organization efficiently. Each role has a specific job description with expectations for duties, responsibilities and boundaries. The collaboration between the people in those roles is what makes it all work for the good of the patients, shareholders, stakeholders and employees. Here is a general overview of how hospital infrastructures work.

10.5 Roles and Responsibilities of the Chairman of the Board

The board chair is a member of the board of trustees. The person filling this role presides over board and executive committee meetings. The board chair has many duties. One of the primary duties is to guide the board's work by steering the board's priorities, annual objectives and strategic plans.

Serving as the hospital's public spokesperson, the board chair is the voice of the board to hospital staff, stakeholder groups and the community at large. As a leader, the board chair serves the best interests of the organization and the board, placing their own interests aside.

Typically, the board chair develops a special relationship with the hospital CEO. The board chair offers the CEO advice about governance matters and garners support for the CEO from the rest of the board. Regular communication between the board chair and the CEO facilitates the setting of clear goals and objectives, which the CEO then communicates to upper management.

The board chair has many responsibilities to the other board members, including recruitment, orientation, and board mentoring and development. The board chair is an ex-officio member of all committees. In this role, the board chair designates committees and

appoints committee chairs. Board chairs who work effectively with committees keep up-to-date on their activities and are available as a sounding board.

10.6 Roles and Responsibilities of the Board of Trustees

The board directors of hospitals are sometimes referred to as trustees because the owners and community entrust them with overseeing the hospital's best interests. The board of trustees is the governing body of the hospital. They are responsible for developing and reviewing the hospital's overall mission and strategy. The board guides the long-term goals and policies for the hospital by making strategic plans and decisions.

The board of trustees doesn't get involved in managing the hospital's activities; rather, they oversee them. As part of their oversight duties, the board of trustees sets the job description for the CEO and is responsible for hiring, firing and monitoring the CEO. The board typically sets clear goals and expectations for the CEO, in keeping with strategic planning. Trustees assist and support the CEO with input about management policies, procedures and decisions. Upper management, along with human resources, is responsible for hiring hospital staff. Board trustees oversee the employee credentialing process, making sure healthcare professionals have the proper training, licensing and accreditation. The board is also responsible for making sure that processes are in place to discover any history of disciplinary action by prospective employees and to ensure that they have the proper level of malpractice insurance.

Hospital trustees are charged with duty of care, which means that they must oversee the hospital's financial health and sustainability. They must also make sure that the hospital makes the best use of the resources it has.

Hospitals provide a vital community service, so it's important for board trustees to oversee the highest quality of care. Board trustees need to stay abreast of the latest in industry news and best practices. Trustees represent the hospital within the community, so it's important for them to understand the needs of their community and to respond with outreach efforts and education.

Hospital boards must engage in self-regulation by performing regular self-evaluations on themselves, their peers and the whole board. Trustees typically find it necessary to continually educate themselves on healthcare trends by subscribing to magazines like *Trustee*.

10.7 Roles and Responsibilities of the Company Secretary

As in many other industries, the role of the company secretary is evolving into one of primary importance. In fact, some governance experts favor a title change from Secretary to Chief Governance Officer. Many hospitals are lagging behind the times, marginalizing the secretary and deeming them as little more than a note-taker and file clerk. With major changes in governance taking place, company secretaries are the prime people to champion governance expertise for their boards.

Company secretaries work closely with the board chair and the CEO when recruiting, electing or appointing new board members. They also assist the board chair with recruiting and selecting committee chairs and committee members. The secretary often serves as the committee chair for the governance committee.

Secretaries also take on much of the responsibility for orienting board members and arranging mentors and continuing education for them. As needed, the company secretary also helps the board perform self-evaluations. The secretary also takes a primary role in working with the board chair to address dysfunctional or non-participatory board trustees.

As a matter of practicality, the company secretary maintains official hospital records, including the articles of incorporation, bylaws, voting records, and the board's policies, procedures and protocols. The secretary works with the board chair to set and distribute agendas and board packets prior to board meetings.

In addition to these important duties, the secretary assists the board chair in fulfilling his or her responsibilities.

10.8 Roles and Responsibilities of the General Counsel

Hospitals have not historically appointed anyone to fill the role of General Counsel. When hospitals needed legal advice or representation in the past, they typically hired outside firms after the board identified a prospective or pending legal matter. In today's healthcare industries, two issues motivate hospital boards to hire legal staff.

First, the healthcare arena is becoming increasingly litigious, which has led to the need for healthcare reform. Second, the fall of the financial industry is promoting governance changes. Hospitals are feeling the impact of increasingly stringent regulatory constraints.

As a result, many hospitals now employ robust legal teams, headed up by the General Counsel. The General Counsel may act alone, but usually oversees a team of attorneys. Hospitals no longer generally have one or two general law attorneys. The needs of today's hospitals necessitate having attorneys on staff who specialize in specific areas of law. The General Counsel acts as a liaison between the board and staff attorneys. The General Counsel usually attends board meetings and helps the board understand any legal implications of the strategic planning process.

It's common for hospitals to retain lawyers with titles such as Deputy General Counsel, Chief Legal Officer, Chief Compliance Officer and Chief Risk Officer. The General Counsel oversees the activities of the entire legal team. These varied roles are important because hospitals' attorneys interact with many different stakeholders, including universities, healthcare providers, researchers and the public. Because of the many legal needs of hospitals, legal teams need to be flexible, multidisciplinary and innovative.

Healthcare reform is a major topic within the hospital industry. Hospitals desire to have input as legislative changes are looming. Having qualified and competent attorneys allows hospitals to have a greater impact on legislative issues, which can have an overall positive impact on the board's ability to govern hospitals effectively.

Finally, boards are finding it more efficient and affordable to hire in-house legal teams than to hire lawyers on an ad hoc basis after a crisis. This approach supports board trustees' duty of care in making the best use of resources.

10.9 Roles and Responsibilities of the Treasurer

The primary role of the board treasurer is one of a financial advisor. Regulatory changes have intensified within the last two to three years, which has made the role of hospital treasurer challenging.

The treasurer is responsible for producing a complete and accurate financial report for board approval. This report may be due monthly, quarterly or annually. The board trustees make decisions about the hospital's financial health based on these reports.

The treasurer is responsible for overseeing the accounting and financial records of the staff counterpart, which is the CFO. The treasurer helps the board understand and interpret the CFO's reports and gives them meaning by presenting them with scope and context. Acting as

a liaison between the board and the CFO, the treasurer provides the board trustees' perspective back to the CFO.

The CFO's duties are distinctly different from those of the treasurer. The CFO plays more of a hands-on role in managing cash flow, paying debts, managing bank accounts and approving credit card purchases. The treasurer provides oversight to the CFO regarding these duties.

The treasurer is also responsible for completing financial forms, such as the IRS Form 990, on time and taking a lead role during audits.

Because of the changing regulatory environment, hospital treasurers need to be adaptable, quick-thinking and to have top-notch communication skills.

10.10 Roles and Responsibilities of the CEO or Dean of Medicine

The CEO of a hospital is sometimes called the Dean of Medicine. This is the highest-ranking executive position in the hospital's infrastructure. The CEO manages the day-to-day activities of the hospital and works with the board chair to develop and implement the hospital's strategies. The CEO is the highest leader that oversees all of the hospital's operations and programs. The board of trustees usually receives regular summaries of the hospital's work, along with proposals for changes, from the CEO.

Along with the board chair, the CEO is often a public person who acts as the hospital's spokesperson.

10.11 Roles and Responsibilities of the President

Not all hospitals have a president. Whether they have one is a matter of how the board of trustees designed the management structure. Some hospital boards choose to combine the CEO and President positions. Other boards of trustees combine the President position with the Chief Operations Officer (COO) role. Some hospital structures place the President as second in line to the CEO, somewhat like a Vice President position.

Any and all of those structures can work nicely. The key issue is for the hospital board to write clear job descriptions with their expectations for duties and responsibilities specifically stated.

The role of President, when there is one, is to effectively manage the relationship between the owners and the decision-makers in order to increase shareholder value.

10.12 Roles and Responsibilities of Upper Management

Upper management at hospitals performs much of the legwork, as directed by the CEO. Managers set the goals and budgets for their departments. They also oversee work schedules and coordinate operational matters with their staff.

Managers are responsible for overseeing billing and collections activities, such as patient fees and insurance. Sometimes they are also responsible for fundraising activities.

Managers are the front-line people responsible for ensuring compliance with laws and regulations. Their primary duties are to strategize how to improve the hospital's efficiency and keep quality of care at the highest level possible

Quality managers stay current on healthcare laws, regulations and technology and strive to use their knowledge to improve care to patients.

Because of having first-hand knowledge of operations, upper managers represent the hospital to investors and governing boards. They also assess the needs of the community and develop programs for outreach and education to meet the needs of area patients.

Upper managers need strong communication skills, as their jobs require them to connect with other departments in the hospital and to communicate with doctors, nurses and other staff regarding their needs.

10.12.1 The Final Wrap-up on Hospital Board Roles and Responsibilities

In many ways, the roles and responsibilities of hospital boards and managers are no different than other types of boards. What sets them apart is that they need to satisfy shareholders and perform their fiduciary duties while providing the best possible quality of care for their patients.

Healthcare reform is continually challenging hospital boards to remain diligent and dutiful in their responsibilities.

10.13 Governing Body

10.13.1 The Governing Board

There are a number of important people in the hospital to whom a person wanting to see the 'chief' in a hospital may be led to. He could be led to the chief physician, or the office superintendent, or the medical superintendent, or the secretary of governing board, to mention a few. Most organisations have a chief, who is in charge of everything that goes on there. But who controls the hospital's activities and services?

There appear to be several people and several groups who all have something to do with controlling the above activities, but no single person or group appears to be in charge of the whole set-up. The administrator, on the other hand, if asked as to what goes on in his office, might go so far as to say that it is the place from where the hospital is "run".

Excepting, a single-proprietorship hospital, there has to be a body of persons statutorily responsible for running the hospital. This body is variously called the "board of directors", "governing board", "board of trustees", "governing body", or "management board".

Can a group of persons, say the board of trustees or governing board be effectively in-charge of the hospital's administration? To answer this question, one has to understand how does such a board function. A governing board, as a body of persons, can make and guide policy but cannot, by its vary composition, "run" a hospital.

This task is carried out by the hospital administrator. As the board's chief executive officer he has overall charge of the affairs of the hospital. However, the extent of his control depends upon the following factors.

1. How he perceives his job.
2. How the board perceives the job.
3. How much freedom he is allowed in doing the job.

A typical hospital management board (or Board of Trustees or Board of Directors) is scarcely different from many other dissimilar organisations. Some boards may interpret their own role as of "running" the Hospital's day-to-day affairs. On the other hand, the administrator could be inhibited from showing his initiative. In the first instance, the general calibre of the administrator who is reluctant to assume responsibilities may be the reason for the Board's interpretation. In the second instance, the board itself may be unwilling to give him scope to

do so. In certain hospital organisations, there is a failure to recognise the distinction between the role of the board and that of the administrator.

This results in overdeliberation by the board, with trivial matters being debated in board meetings and the administrator reduced to an onlooker.

On the other hand, there are well run hospitals in which competent administrators have been allowed to take effective control, and the board understands that its own function is only to determine how it should be run.

10.13.2 Chief Executive Officer

The Bureau of Labor and Statistics defines a Chief Executive Officer (CEO) as a professional who determines and formulates policies and provides overall direction of companies or private and public sector organizations within guidelines set up by a board of directors or similar governing body. They are involved in the planning, direction, and coordination of day-to-day operations at the highest level of management with the help of assistant executives and staff managers.

A Hospital CEO has the responsibility to ensure almost every aspect of how hospitals perform is working efficiently. They need to find a balance in managing the day-to-day operations while leading strategic development initiatives required for long-term success. Some of the areas of responsibility for a hospital CEOs include:

1. Responsible for delivering the best quality of patient care
2. Leadership while creating a positive and productive culture
3. Setting an following standards for operational excellence
4. Hire and retain qualified staff
5. Implement clinical procedure and policy
6. Safeguard required compliance with State, Federal and CMS regulations as well as hospital policies
7. Develop a relationship with outside organizations, including the medical community, referring physicians, and the media
8. Deliver strong financial performance

10.14 Summary

Healthcare managers make depends largely on where they are employed. Being a manager for a government organization or major hospital tends to pay more since these managers have much more to oversee than managers at smaller institutions. Managers at residential facilities like nursing homes or inpatient rehabilitation facilities tend to make less. For many, healthcare management (as well as other jobs in the healthcare industry) are attractive choices because healthcare is always in demand, even in uncertain economic times.

When most people think of important jobs in healthcare, they imagine doctors and nurses. And while these jobs are undoubtedly important, they need to be supported by competent healthcare management in order to provide the best patient care possible. Working in healthcare can be very rewarding and satisfying, especially when a person is playing a part in helping others feel better. Healthcare management may not be directly related to patient care, but the patient care is only as efficient as the facility's healthcare management team.

10.15 Key words

Primary Care- Primary health care is a people-centred rather than disease-centred service that addresses the majority of a person's health needs throughout their lifetime including physical, mental and social well-being.

Tertiary Care- Tertiary care, is a level above secondary health care, that has been defined as highly specialised medical care, usually provided over an extended period of time, that involves advanced and complex diagnostics, procedures and treatments performed by medical specialists in state-of-the-art facilities

Quaternary Care- Quaternary care has been defined as an extension of tertiary care in reference to advanced levels of medicine which are highly specialised and not widely accessed, and usually only offered in a very limited number of national or international centres.

Chief Executive Officer (CEO)- Chief Executive Officer as a professional who determines and formulates policies and provides overall direction of companies or private and public sector organizations within guidelines set up by a board of directors or similar governing body

10.16 Self-Assessment Questions

1. Define the Primary care, Secondary care, Tertiary care.
2. Briefly Explain the Role and Responsibilities of Chairman of the Board

3. Discuss the Role and Responsibilities of CEO

10.17 Suggested Readings

1. Sakharkar, B.M., & Jaypee Brothers (Jaypee Digital) (2009) Principles of Hospital Administration and Planning, (Jaypee eBooks), Jaypee Brother Medical Publisher Private Limited.
2. Hospital Administration (2017) DC Joshi and Mamata Joshi Jaypee Brothers Medical Publishers (P) Ltd.; 1st edition
3. Hospital and Healthcare Accreditation (As Per the Guidelines of NABH, NABL, JCI) (2018) Brajkishore Rajoriya Six Sigma Star Healthcare (P) Ltd, New Delhi, India; NABH, NABL, JCI.
4. Performance Improvement in Hospitals and Health Systems: Managing Analytics and Quality in Health care (2018) James R. Langabeer II CRC press Taylor and Francis Group Productivity Press Book.
5. Service Quality for Facilities Management in Hospitals (2016) Low Sui Pheng & Zhu Rui (auth) Low Sui Pheng & Zhu Rui (auth.) Springer Publications
6. Introduction to Health care quality Management (2009) Patrice Spath AUPHA press Washing Ton PC.,

LESSON -11**MEDICAL ADMINISTRATION AND NURSING****ADMINISTRATION****Learning Objectives**

- To study the functions of Nursing services
- To learn the factors, influence the Nursing care
- To understand the steps in Determining the Nursing time
- To discuss the Nursing norms

Structure

11.0 Introduction

11.1 Function of Nursing services

11.2 Role of Nursing services

11.3 Determining the Nursing staff requirements

11.3.1 Case Method

11.3.2 Group Assignment Method

11.3.3 Functional Assignment Method

11.3.4 Team Nursing Method

11.3.5 Primary Nursing Method

11.3.5.1 Indirect Nursing care activities

11.4 Factors that influences services of nurses

11.4.1 Type of Service

11.4.2 Acuteness of illness

11.4.3 Experience of Nurses

11.4.4 Amount and Quality of Supervision

11.4.5 Availability of Nursing Aid

11.4.6 Teaching function

11.4.7 Plan of Nursing units

11.4.8 Physical Facilities

11.4.9 Location of Equipment and Supplies

11.4.10 Working hours and shifts

11.4.11 Hospital Routine

11.4.12 Assignment Method

11.4.13 Standard of care Desired

11.5 Steps in Determining Nursing time available per patient per day

11.6 Nursing time Utilization studies

11.6.1 Time Utilization in Non-Nursing duties

11.7 Staffing Norms

11.8 Organisation

11.8.1 Director of Nursing

11.8.2 Nursing supervisor

11.8.3 Head Nurse

11.8.4 Staff Nurse

11.8.5 Student Nurse

- 11.8.6 Motivation of student Nurse
- 11.9 Policies and Procedure
- 11.10 Dichotomy in Technical and Managerial Responsibilities
- 11.11 Evaluation
- 11.12 Efficiency
- 11.13 Job satisfaction
- 11.14 Summary
- 11.15 Key words
- 11.16 Self-Assessment questions
- 11.17 Suggested Readings

11.0 Introduction

Nursing service is one of the most important components of hospital services. Nursing service in a wider context is that part of the total health organisation which aims to satisfy the nursing needs of the community, the major objectives of which are to provide:

- i. nursing care required for the prevention of disease and promotion of health, and
- ii. the nursing care of sick patients —
 - (a) in the interest of his or her mental and physical comfort, and
 - (b) by reason of the disease from which he or she is suffering.

Nurses form a very important group—the largest single technical group—of personnel engaged in patient care in hospitals next to doctors, consuming approximately one third of hospital costs.

Although there is a close historical association between medicine and nursing, as both of them are involved in direct patient care, one of the persistent problems is that of defining what nursing care should be, and what is distinctive about it. There are attempts at defining nursing in terms of procedures and techniques that emphasise skill at the expense of knowledge and understanding. Nursing has to function within unstructured as well as structured patterns of relationship, and numerous external factors affect the nurses' role. Some see nursing as a performance of tasks designed to help and comfort patients in a dependent role, carrying out orders of physicians, where the nurse is not perceived to require much background knowledge in order to carry out her functions. However, another view as seen by nurses themselves emphasises a decision-making role which views nursing as a team effort interacting with the physicians and other health workers.

This school views nursing as separated into managerial (decision-making and leadership) and technical (cure and care services) activities. A synthesis of the above two, an interactive model that covers nursing assessment, intervention, instruction for patients and managerial tasks—in fact a total management of nursing appears to be the most appropriate.

11.1 Functions of The Nursing Services

Seen in the above perspective, the functions of nursing services are as follows.

1. As a basic function, to assist the individual patient in performance of those activities contributing to his health or recovery (or to peaceful death) that he would otherwise perform unaided has had the strength, will or knowledge.
2. As an extension of the above basic function, to help and encourage the patient to carry out the therapeutic plan initiated by the physician.
3. As a member of the health team, to assist other members of the team to plan and carry out the total programme of care.

The organisation of nursing care constitutes a subsystem for achieving the hospital's overall objectives. Nursing care of patients generally takes three forms:

(i) technical, (ii) educational, and (iii) trusting relationship. Whereas educational and trusting relationship have their own importance, it is the technical form which is important to both the nurses and patients.

Nursing has traditionally been embedded within a hierarchy of authority and autonomy. The Indian Nursing Council Act places sharp limitations on the authority and judgement of the nurse, but in day-to-day situation, doctors fail to fully exercise their authority and judgement, and the nurse may have to exercise more than her legal bounds.

11.2 Role of Nursing Services

In addition to performing many other roles including promoting health behaviours of patients, the professional nurse in the acute care setting performs functions that are primarily curative and restorative in nature. The nurse's role includes diagnosis as a basis for planning, providing, directing, collaborating in, and evaluating direct patient care.

As a helping profession, nursing's ideal characteristics includes the ability and commitment to respond with compassion to human needs and society's expectations for health care services.

The attitude of the head nurse towards her patients is of paramount importance—never for a moment is she or members of her staff are supposed to forget that they are dealing with human beings, not diseases. A disease or disorder affects each person in a different manner depending upon his attitude, his previous experience with hospitals as patient, and the sociocultural pattern of his life. To render understanding care the nurse must appreciate the factors which influence attitudes and the need of the patient for respect of his individuality. Patients, as a rule, wish to maintain a degree of self-dependence and resent having no choice but to accept whatever is being told to them.

Adults who have been accustomed to ordering their own lives and making their own decisions dislike being treated as children and being expected to accept without question that which the doctor or nurse chooses to do them. Explanation of medical treatment are not infrequently left to the nurse. Never should she command or by her manner make patient feel that he has no alternative but to comply.

During convalescence the patient needs something to occupy his mind, be it pleasant companions or even assisting with the work of the ward. He needs the sense of security that comes from a feeling that people are working together— doctors, nurses and others and not at cross-purpose. All this revolves around the work of the nurse.

11.3 Determining the Nursing Staff Requirement

The problem common to all hospitals is the development of a method to determine the nursing effort by categories of nursing staff to meet the nursing needs of the patients in an effective manner. Empirically there are three methods of determining the number and types of nurses.

1. Calculating staff needs based on the number of beds in the hospitals. The inadequacy of this method is that it takes no account of the patient's requirements nor of the fact that nurses are also required in OPDs, OTs and other departments. Using this system, it is possible to develop formulae to calculate the number of staff required only in a given clinical speciality, say surgical department.

2. Estimating the number of staff according to the degree of dependency of the patients as determined on a scale. The advantage of this method is that it gives an estimate of the minimum level of staff necessary to provide safe care. The disadvantage lies in its emphasis on physical dependency as compared with the need for psychological, emotional, social and clinical support. This method can be enlarged to determine different levels of staff to meet the patient's needs.

3. The third method relies on observations of nursing activity. The correct nursing practices in different hospitals are observed and recorded and staff requirements are determined accordingly. This system is also not satisfactory since it assumes that current practices are meeting patient's needs without validating the assumption.

4. Calculating the staff requirement on the basis of patients' need, there has been a move towards considering potential ability rather than inability of the patient in relation to health functions in determining nursing effort.

However, the actual requirement of clinical nursing is dependent on the method of nursing that is practised in a hospital. Five methods have been in vogue, although in many situations a combination of one with the other will generally be observed.

11.3.1 Case Method

The nurse provides all nursing functions for the patient. A one-to-one relationship of 'my patient my nurse' exists resulting in more individual care and greater work satisfaction

11.3.2 Group Assignment Method

One nurse is assigned to a group of patients to provide total nursing care. This can be considered an enlargement of the case method described above.

11.3.3 Functional Assignment Method

Nurses are assigned to functions, e.g. TPR taking, medication, sponging, maintenance, duty and so on. Here, the nursing care becomes fragmented among many nurses, and impersonal. (However, for practical purposes some activities, e.g. serving diet, assisting doctor in dressing are assigned functionally).

This method has some advantages which make those accustomed to it hesitant to change it. In this method, more can be accomplished in a given period of time.

However, this gives the patient a service which is to some extent both unsatisfactory and unsatisfying—unsatisfactory because responsibility for the attention given to patient is arbitrarily divided between several people, unsatisfying because the attention itself is apt to be impersonal.

11.3.4 Team Nursing Method

Assignment of a group of the patients to a team of the nursing (2 to more) staff headed by a staff nurse. This method has resulted due to shortage of staff to give total care. Other nurses and nurse aides are incorporated in the team to take care of the load, as many parts of care do not require the technical ability of a highly skilled professional nurse. The assignment of duties is based upon analysis of functions to be performed, competencies available and supervision required. This approach is quite effective if properly organised and supervised.

However, here too nursing care is fragmented and non-personalised. The concept is based on the philosophy that a group of nursing personnel with graded competencies working together in a coordinated, cooperative way can meet all needs of patients more economically.

11.3.5 Primary Nursing Method

Primary nursing method is akin to the case method. The primary nurse assumes 24-hour accountability for the care, planning and evaluation. When on duty on a shift, the primary nurse herself assumes responsibility for providing total care. Other functions of primary nurse is the coordination of nursing activities with physician and other health professionals.

In determining the number of nurses required for a service in the hospital, it has to be understood that nurses have to carry out two types of actions in relation to patient care. They are as follows.

These are defined as those that are performed in the presence of the patient for the purpose of meeting his or her physical, emotional and social care needs.

11.3.5.1 Indirect nursing care activities:

They are those actions that are not necessarily performed in the presence of the patient but are essential to effective nursing care. Such actions include the process of carrying out nursing assessment, formulating and writing nursing plans, and evaluating the effectiveness of each.

11.4 Factors that influence the service of nurses

Whatever the method of nursing adopted in the hospital, the total number of nursing staff required to carry out effective nursing care is also dependent on many factors.

They are as follows.

11.4.1 Type of Service

Each type of service such as medicine, surgery, obstetrics, paediatrics, etc. differs in the nursing hours required. For example, more nurses are needed for children than for adults, and isolated patients need more nursing.

11.4.2 Acuteness of Illness

The degree of illness affects the amount of nursing care needed. In some studies, acutely ill and therefore completely dependent patients have been known to require 430 minutes in the first (morning), 186 in the second (afternoon), and 124 during the night shift.

11.4.3 Experience of Nurses

Graduate nurses are usually more mature in judgement, more skilled and able to work more rapidly (efficiently). Student nurses in upper classes are more experienced and skilled than younger students.

11.4.4 Amount and Quality of Supervision

Nurses who are well-supervised learn to use their time more efficiently.

11.4.5 Availability of Nursing Aids

Nursing aides (variously called nursing assistants, nursing orderlies, etc.) can play an important role in saving time of nurses if properly trained. Nursing assistants/medical assistants, who are nursing aides take on many nursing tasks in military hospitals, thereby significantly reducing the nurse-to-patient ratio in military hospitals.

11.4.6 Teaching Function

Inexperienced medical students often need assistance and supervision from nurses. There are more treatments and tests performed on patients in a teaching hospital. More nursing staff is needed to meet these demands in teaching hospitals.

11.4.7 Plan of Nursing Units (Wards)

In an open type of ward, the patients are in full view of nurse, and it is easier to see what is happening. Therefore, supervision of the patients is easier. In wards where patients are housed in small units (Rig's pattern), a greater number of nursing staff are required.

11.4.8 Physical Facilities

Good functional planning of physical facilities minimises avoidable walking and waste of time of nurses.

11.4.9 Location of Equipment and Supplies

Time-saving equipment's and their availability at nursing units saves nurses' time. A central supply department and flash sterilisers, are two examples.

11.4.10 Working Hours and Shifts

When the staff is able to work only certain fixed hours and days, the result is inflexibility, and more nurses are needed to adequately cover all parts of the day.

11.4.11 Hospital Routine

Although reports and record keeping are essential, more complex the system of record keeping and reporting, the more nursing time is consumed in clerical work. Availability of a less technical person to handle telephone communications, direct visitors, assemble charts and papers, and check supplies, etc. enhances nurses' time available for nursing.

11.4.12 Assignment Method

Other things apart, the functional method of assignment of work is more efficient than case or team method. The team method where the assignment of duties is based upon analysis of functions to be performed, competencies available and supervision required is a popular method and is quite effective if properly organised and supervised.

11.4.13 Standard of Care Desired

The attention given to comfort and safety measures and the emphasis on personalised rather than routine care (e.g. in private rooms) influence the number of nursing staff required.

Barrett et al have suggested that in determining the staffing pattern of a patient care division, the factors which should be considered are as follows.

1. The mean daily patient census
2. Daily patient turnover rate
3. Illness acuity of majority of the patients
4. Types of therapies and surgical procedures usually performed on patients and special nursing requirements of such procedures.
5. Proportion of time required per shift per patient for both indirect and direct nursing care activities.

Carrying out time and motion studies and activity analyses to determine the nursing time for various categories are an aid in this direction. Whereas in a new hospital the staffing plan must be based on a mix of the experience of other similar hospitals, current staffing levels in a existing hospital can be studied for their adequacy by the method described below. To be practicable, the study must not club all the wards and different types of service (medical, surgical, obstetrical, etc.) together, as the intensity and level of nursing care in each must differ. A National Institute of Health and Family Welfare (NIHFW) study revealed that the minimum actual time needed for direct nursing care in four different types of wards was as follows.

1. Surgical ward 192 min
2. Medical ward 236 min
3. Paediatric ward 308 min
4. Maternity ward 158 min

Limitations of such studies are obvious as their findings do not fit in other situations. However, they act as starting points for further studies

11.5 Steps in Determining Nursing Time available per patient per day

Step 1. Find out the average number of days worked by a nurse (i.e. 365 minus holidays, leave, sickness, etc.)

Step 2. Find out the average number of hours worked by a nurse (multiply average number of days by number of hours worked per day, usually 8 hours).

Step 3. Multiply the hours worked per year by a nurse by the total number of nurses in that ward to obtain total number of nursing hours per year.

Step 4. Divide the total number of nursing hours per year by 365 to obtain nursing hours per day (Remember, a hospital works 365 days a year).

Step 5. Divide the total number of nursing hours per day by the average daily patient census in the ward to obtain the number of nursing hours actually devoted per patient.

11.6 Nursing Time Utilisation Studies

Considerable amount of research has been done to devise ways of assessing the workload and calculating the number and mix of nurses required for a definite load. The nursing needs of the patients are directly related to the severity of his illness, and therefore, to the degree of patient dependence on nurses. In the study carried out by the NIHFV in the medical and surgical wards of a general hospital, the result showed that the average time taken per patient in different shifts varied from 196 minutes to 10 minutes for different degrees of dependency

Table 11.1 Nursing time by patient dependency

<i>Patient category</i>	<i>Shift</i>			<i>Total</i>
	<i>Morning</i>	<i>Evening</i>	<i>Night</i>	
I. Completely dependent (21%)	196 min	150 min	87 min	433 min
II. Partially dependent (44%)	97 min	55 min	83 min	235 min
III. Marginally dependent (Fully ambulant) (35%)	72 min	41 min	10 min	123 min

Based on the above observations, it was worked out that the number of patients in each category and in each shift that could be looked after by one nurse was as follows

Table 11.2 Shift system of Nurses

<i>Patient category</i>	<i>Morning shift</i>	<i>Evening shift</i>	<i>Night shift</i>
I.	2.4, say 3	3.2, say 4	5.5, say 6
II.	4.9, say 5	8.3, say 9	14.4, say 15
III.	6.7, say 7	11.9, say 12	45

Table 11.2 common observation of everyone working in hospitals is that nurses spend a lot of their working time (Nursing hours per day NHPD) in non-nursing activities. Another study conducted as NIHFV showed that only 56.7 percent of all nurses activities were patient-

centred, of which 31.3 per cent were in direct patient care. Patient-centre activities accounted for 42.9 per cent in the morning, 41.6 per cent in the evening and 23.6 per cent in the night shifts.

Such studies help the nursing administrator to estimate the total number of nurses needed and the staffing plan for a ward according to the categorisation of patients and degree of their dependence. Given the aggregates for all wards and departments, the number of total nurses required and the overall staffing plan must be worked out by the hospital administrator.

Wide variations have been found in nursing hours per day (NHPD) in otherwise comparable hospitals. Evidence of poor scheduling is apparent in many hospitals—they determine their staffing needs on the basis of number of beds rather than on type of the patients. And, contrary to the belief that sophistication in instrumentation and more mechanisation will reduce dependence on nurses, it has long been established that there is a direct correlation between sophistication and NHPD; the higher the sophistication, the greater the number of nursing hours.

11.6.1 Time Utilisation in Non-nursing Duties

A substantial amount of nurses' time is spent on activities that could best be described as non-nursing. The staff nurses have to carry out certain jobs which can be carried out by less skilled personnel. These jobs are as follows—

1. Charting
2. Making diet lists
3. Sample taking
4. Arranging despatch of samples
5. Bed making
6. Supervision of housekeeping
7. Sending patients to other wards or department
8. Orientation of patient to ward and surroundings
9. Attending to problems of visitors and relatives
10. Exchange of articles from CSSD, stores, laundry, etc. Shift wise nurse: patient ratio

Notwithstanding the importance of certain administrative, clerical and record keeping duties of the nurse, it can safely be surmised that such tasks can be delegated to staff at a lower level of competence.

In one of the studies on nursing staff time utilisation, it was found that 92 per cent of available nursing staff was employed on direct patient care duties and the remaining 8 per cent on purely administrative duties. Of the nurses employed on direct patient care duties 20.7 to 44 per cent of even their time was accounted for by nonprofessional duties. The employment of the staff during the day was 83.3 per cent for the day shifts and 16.7 per cent for the night shifts which was totally disproportionate to the work load requirement in wards.

Many other studies abroad have also shown that nurses spend less than half their time in direct patient care activities.

Staff nurses averaged 41 per cent of time in direct patient care activities, with 25 to 30 per cent of the remainder in planning and coordinating of care, and in communication.

The head nurse spent only 15 per cent of her time and the nurse supervisor 7 per cent in direct patient care.

If professional nursing time in the OPD is not well assigned, outpatient department can account for a substantial wastage. In the OPD as little as 7 per cent of the qualified nursing staff time has been found to be spent on nursing work, with ancillary work accounting for 13 per cent, clerical work 28 per cent, administrative and supportive duties 16 per cent, cleaning 4 per cent and personal and waiting time 29 per cent. These figures suggest that generally outpatient departments may be overstaffed with highly qualified personnel, much of whose work could be done by lower grade professionals or even by nonprofessional staff.

Some workers have observed that the employment of a ward clerk or secretary could relieve the disproportionate amount of professional nurse's time devoted to clerical work and permit more attention to nursing care functions, resulting in economy. Addition of a ward secretary reduced the time of head nurse on clerical work from 38 to 3 per cent. Use of highly trained (and therefore higher paid) nursing personnel is inefficient and expensive. Clinical nursing costs account for 30 to 50 per cent of all staff costs in hospitals in Western countries. Reliable studies are not available on nursing costs in hospitals in India, but they are likely to be on somewhat lower side

11.7 Staffing Norms

Studies have shown wide variations in levels of staffing; the range of total nursing strength varies from 56 to 114 per 100 patients in nonteaching hospitals. These variations are not wholly explainable by hospital characteristics. Whereas in western countries the bed: nurse

ratio is up to 3 nurses per patient basis, in India the ratio is much poorer. It is 0.4 nurse per bed in respect of nurses alone, and 0.6 per bed if the ANMs are also included. The Indian Nursing Council has developed norms for the staffing of hospitals. It recommends one staff nurse per 3 beds in teaching and one staff nurse per 5 beds in nonteaching hospitals. For 60 beds, there should be 20 staff nurses in teaching hospitals and 12 staff nurses in nonteaching hospitals

Table 11.3: Nursing staff for wards, special units and OPD as recommended by Indian Nursing Council

<i>Particulars</i>	<i>Nursing sister</i>	<i>Staff nurse</i>
1. Gen Med and Surg wards	1:25 beds	1:3 beds
2. ICU/CCU/special units	1 each shift	1:1 bed (each shift)
3. Labour room	1 each shift	4 in each shift
4. OT	1 each shift	3 for 24 hours per table in each shift
5. OPD	1 overall 1 Gyne OPD	1 in each clinic of the department
6. Casualty and emergency departments	1 in each shift	2-3 depending on no. of admissions

The nursing department is responsible for nursing units (wards), operation theatres, recovery rooms, labour rooms and delivery suites, special care units, nurseries and the CSSD. The nursing service in each of these departments functions under the direction of a head nurse or supervisor who is responsible for administering the nursing personnel posted to each department

11.8 Organisation

11.8.1 Director of Nursing

Nursing service must function under a senior competent nurse administrator—variously called director of nursing, nursing superintendent, principal matron, or matron-in-chief. She is responsible to the hospital administrator for the overall programme and activities of nursing care of all patients in the hospital. The nursing programme is administered by her through appropriate planning of services, determining nursing policies in collaboration with hospital management and nursing procedures in collaboration with nursing staff, giving general supervision, delegation of responsibility, coordination of inter department nursing activities, and counselling the hospital administration on nursing problems.

She has a dual role: the first one is the administrative responsibility towards the hospital administration, and the second one is the coordinating of all professional activities of nursing

staff with those of medical staff. For a new hospital project, a senior nurse administrator is associated from the beginning of the project would be able to plan the pattern of staffing, viz. the case method, team method, etc. best suited to the architectural design and layout of ward units. Conversely, she will be able to offer valuable help in suggesting design and physical layouts suited from the nursing point of view.

The role of nursing superintendent starts in a new hospital from helping to establish the overall goals, policies and organisation, and facilities to accomplish these goals in the most effective and efficient manner. The functional elements of the role of the nursing superintendent includes the following.

1. Formation of aims, objectives and policies of nursing service as an integral part of hospital service
2. Staffing based on nursing requirements in relation to accepted standard of medical care
3. Planning and directing nursing care
4. Coordinating interdepartmental activities
5. Maintaining supplies and equipments
6. Budgeting
7. Records and reports.

11.8.2 Nursing Supervisor

Each department or clinical division, e.g. medical, surgical, obstetrical, operation theatres, outpatient department, nurseries, etc. should have a supervisor. As there may be more than one nursing unit in each division or department, supervisors have a general administrative and coordinating function within their respective division. However, supervisors will also have limited clinical functions.

It is generally accepted that a good nursing service depends upon strong supervision, no matter what type of nursing assignment seems best suited to the new hospital.

11.8.3 Head Nurse

A head nurse is assigned to a nursing unit, or ward, or a section of department. She works under the general direction of the supervisor of the division.

11.8.4 Staff Nurse

Staff nurses are employed at the “floor” level for carrying out skilled bedside nursing. This is the real work force of the hospital upon whose competency, state of training and dedication depend the success of the nursing department.

11.8.5 Student Nurses

Student nurses cannot be employed on nursing duties except under supervision of fully qualified staff nurses. However, they are a factor in reducing the permanent nursing staff of a hospital. Repetitive and less skilful nursing tasks can be taken over by student nurses.

11.8.6 Motivation of Student Nurses

A well-managed hospital at peak professional efficiency motivates student nurses to develop a lifelong commitment to their mission of nursing during their close encounters with death and the success of life-saving measures. But the high mortality and disability rates tend to lower the morale of nurses in training. Therefore, there is a need for inculcating high degree of cheerfulness and developing stability of character during their training. The trainers and the hospital should capitalise on the fact that working in critical care areas under efficient and mature nursing staff develops a sense of achievement and fulfilment, and this further acts as motivator in their mission of nursing.

Hospitals having nursing training programme must standardise the work to be allotted to the student nurses. In some hospitals, allocation of duties is determined according to seniority and in others it is left to the discretion of the ward sister. Third year nurses are made mainly responsible for medicines, injections, and other technical procedures, and first-year nurses are responsible for toilet rounds, bed baths and feeding. The junior student nurses are an indispensable part of the ward work. Three quarters of the nursing is contributed by them.

There has to be a proper distinction between the work and responsibilities of the fully trained nurse and the nurse nearing the end of her training, who necessarily lacks experience. The fact is that nurses in training bear so large and important a share of the actual nursing to be done in the ward that their particular needs as students are sometimes passed over.

11.9 Policies and Procedures

In order that a good standard of nursing care be maintained, the nursing superintendent should develop written policies and procedures to serve as guides for nurses of the various units of the hospital. Important topics that should be incorporated are as follows.

1. Organisation
2. Status and relationship
3. Responsibilities
4. Staffing pattern, shift pattern
5. Departmental functions
6. Requisitioning of supplies
7. Utilisation, care and maintenance of equipment
8. Patient admission procedures including communication with doctors
9. Nursing procedures
10. Coordination with domestic services
11. Handling of patients clothing and valuables
12. Dealing with verbal or telephonic orders by medical staff
13. Handling and control of narcotics and dangerous drugs
14. Isolation techniques and communicable diseases
15. Control/prevention of hospital infection
16. Safety—hospital hazards, accidents and fire
17. Care and maintenance of furnishings
18. Standards of temperature, ventilation, lighting
19. Public relations, release of patient information to others
20. Visiting hours, dealing with visitors
21. Health education of patients, briefing of visitors and relatives

22. Transfer of patients
23. Records and reports
24. Private nurses
25. Use of restraints
26. Discharge procedures including communication to business office and others
27. Procedure for patients leaving against medical advice (LAMA)
28. Procedure following death of patients.

When nurses take upon themselves the responsibility of total care, their instructions require to be clearly specified—the nursing plan must provide for clear instructions on observations, tests, medications and all other specified nursing tasks.

Although nursing services take orders from doctors, they have a line responsibility to the hospital administrator.

The support and administrative services (e.g. lab) have also a responsible focus on patient needs but have to work with physician's needs. These relationship impact on each other, with multiple lines of communication and multiple influences which should be clarified in the nursing policies and procedures.

11.10 Dichotomy in Technical and Managerial Responsibilities

The nurse has a distinct function of management in relation to planning of direct-care inputs. The needs of the patient for comfort, safety, understanding, etc. are in many instances as urgent as his requirement for intervention of a technical nature. Most nurses recognise the need for the senior nurse-manager to keep in touch with changing clinical practices in order to determine priorities for nursing management, also recognising that she may not participate in direct nursing care. Individual responsibility for the total nursing care of a number of patients during her shift involves planning, providing and evaluating the care. Such a nurse need not hold a position above the group members, but has a temporary, functional authority to coordinate the work.

Hospital administrators are not well-equipped for managing nursing services. But hospital administrators must share management information with nursing administrators.

Often, nursing superintendents are not given adequate status in the administrative hierarchy as evidenced by the fact that they may not attend staff meetings.

11.11 Evaluation

The nursing department must be in a position to maintain nursing services at a high level of efficiency. For this, periodic evaluation should be undertaken to assess the changing needs due to altered policies, shifting emphasis in management of the patients, and introduction of new technologies.

Nursing as a profession is old but has only recently been able to attain a mouthpiece professional association in meeting the criteria of self-governance, source of professional and self-discipline, standards, ethics and cohesiveness. However, such professional associations should encourage self-evaluation at the hospital level.

11.12 Efficiency

The nurse can give her best service only if she is assigned to the service that is of greatest interest to her. Although this is not always possible, special consideration should be given to the nurse's personal choice of service, and she should be transferred to that service as soon as possible if she cannot be assigned to it at once. Assignment to a service should not, however, be limited to one ward. It is best to allow the nurse to become expert in the field of her choice, but this does not preclude assigning her to another ward for several hours of assistance from time-to-time when, absence of personnel or especially heavy workload of very ill patients requires the service that a well-trained staff nurse can give.

Growth of specialities also means the growth of specially trained nurses for ICU, OT, dialysis, neurosurgery, burn unit, neonatology, etc.

11.13 Job Satisfaction

Job satisfaction of nurses does not mean monetary satisfaction alone but also the joy attained from doing their work. This satisfaction has a relationship with good colleague relations, good service conditions, and the enjoyment gained from merely doing a particular kind of work.

About nurses opting for higher academic qualifications, there is diversity of thought on what should be the content of this long and disciplined educational process; collegiate nursing

education is separated from direct patient care and intensive patient contact as opposed to hospital-based nursing diploma course.

Long distances from home to hospital and consequent transport problems have tended to restrict the nurse's employment preference for conveniently located hospitals.

The opportunity of recruiting nurses living in the neighbourhood of the hospital should be considered, because constantly changing shift duties are an inescapable part of a nurse's career. Nurses living in the neighbourhood of the hospital have a better level of job satisfaction.

11.14 Summary

Nursing administration is a leadership role in a given healthcare setting. This strategic management of staff, patients, and facilities is done by implementing policies written by the nurse administrator or more senior staff. Nurse administrators may not be involved with the day-to-day care of patients but rather are occupied with scheduling, managing budgets, overseeing nurses, writing reports, and ensuring a high quality of patient care. The work nurses perform is very specialized, which is why nursing administration is critical to a smooth-running healthcare centre. The best person to supervise nurses is another nurse who has specialized training in leadership and management.

11.15 Key words

Nursing Service- Nursing service in a wider context is that part of the total health organisation which aims to satisfy the nursing needs of the community.

Team Nursing Method- Assignment of a group of the patients to a team of the nursing (2 to more) staff headed by a staff nurse

Primary Nursing Method- Primary nursing method is akin to the case method. The primary nurse assumes 24-hour accountability for the care, planning and evaluation

Staff Nurse- Staff nurses are employed at the "floor" level for carrying out skilled bedside nursing. This is the real work force of the hospital upon whose competency, state of training and dedication depend the success of the nursing department.

Job Satisfaction- Job satisfaction of nurses does not mean monetary satisfaction alone but also the joy attained from doing their work.

11.16 Self-Assessment Questions

1. Explain the Functions of Nursing Services?
2. Outline the Role of Nursing Services?
3. Elucidate the Determining the Nursing staff requirements?
4. Discuss the Factors that influence the services of Nurses?

11.17 Suggested Readings

1. Sakharkar, B.M., & Jaypee Brothers (Jaypee Digital) (2009) Principles of Hospital Administration and Planning, (Jaypee eBooks), Jaypee Brother Medical Publisher Private Limited.
2. Hospital Administration (2017) DC Joshi and Mamata Joshi Jaypee Brothers Medical Publishers (P) Ltd.; 1st edition
3. Hospital and Healthcare Accreditation (As Per the Guidelines of NABH, NABL, JCI) (2018) Brajkishore Rajoriya Six Sigma Star Healthcare (P) Ltd, New Delhi, India; NABH, NABL, JCI.
4. Performance Improvement in Hospitals and Health Systems: Managing Analytics and Quality in Health care (2018) James R. Langabeer II CRC press Taylor and Francis Group Productivity Press Book.
5. Service Quality for Facilities Management in Hospitals (2016) Low Sui Pheng & Zhu Rui (auth) Low Sui Pheng & Zhu Rui (auth.) Springer Publications
6. Introduction to Health care quality Management (2009) Patrice Spath AUPHA press Washing Ton PC.,

LESSON -12**MIDDLE LEVEL MANAGERS AND STRUCTURING
HOSPITAL ADMINISTRATION****Structure**

- 12.0 Introduction
- 12.1 Guiding Principles in Planning
 - 12.1.1 Patient care of High Quality
 - 12.1.2 Effective Communitive Orientation
 - 12.1.3 Economic Viability
 - 12.1.4 Orderly Planning
 - 12.1.5 Sound Architectural Plan
 - 12.1.6 Medical Technology and Planning
 - 12.1.7 Hospital Planning team
- 12.2 Hospital Consultant
- 12.3 The Core group
- 12.4 Hospital Consultant communication and Leadership
- 12.5 Hospital Architect
- 12.6 Assessment of Extent of need of Hospital services
- 12.7 Epidemiological Approach in Medical care Planning
 - 12.7.1 Bed Planning
 - 12.7.2 Hospital size
 - 12.7.3 Closing site
- 12.8 Land Requirement
 - 12.8.1 Site Cover Percentage
 - 12.8.2 Soil Structure
 - 12.8.3 Public Utilities
 - 12.8.4 Water
 - 12.8.5 Sewage Disposal
 - 12.8.6 Power
 - 12.8.7 Electrical Substation
 - 12.8.8 Master Plan and its Totality
 - 12.8.9 Circulation Routes
 - 12.8.10 Internal Circulation
 - 12.8.11 External Circulation
 - 12.8.12 Distance, Compactness, Parking, Landscaping, and Visual Impact Distance
 - 12.8.13 Compactness
 - 12.8.14 Parking
 - 12.8.15 Landscaping
 - 12.8.16 Visual Impact
- 12.9 Summary
- 12.10 Key words
- 12.11 Self-Assessment Questions
- 12.12 Suggested Reading

12.0 INTRODUCTION

The picture regarding medical care services in developing countries including India can be described as chaotic. Hospital beds are inadequate, the hospitals are located far away from the communities which need them, most crowded in towns and cities, and heavily biased in favour of urban populations. As a result, although the average national bed: population ratio is less than 0.8 beds per 1000 population, it is as high as 2.5 beds per 1000 population in metropolitan centres like Delhi and Mumbai and as low as one bed per 3700 to 14000 population in rural and tribal areas in India. Where there is inadequate medical care in rural areas there is also surfeit of care in some places. Specialist services are concentrated in urban centres, and there is duplication of services in many others. There are many reasons for the current state of affairs. An absence of a realistic national health policy, haphazard medical care planning, and inadequate availability of funds for the health sector are amongst the main reasons. The current national health policy document was released in 2002 with the avowed objectives to increase the current bed: population ratio, improve medical care facilities for rural areas and improve quality of service in the existing hospitals and medical care institutions. The policy was revised in view of experiences gained, and a fresh National Health Policy was released by the Govt. in the year 2002. Many of the objectives of the revised policy are still eluding the health planners. Experience of many countries having advanced medical care systems has shown that hospitals are very expensive to build. Their initial capital costs are high, and the construction and equipment consume tremendous capital investment. But what is more important is they are also very expensive to operate, with their running costs amounting to approximately one-third of the initial construction costs for each year of operation. Haphazard planning at initial stages by inexperienced and uncommitted technical personnel results in changes at constructional stage resulting in avoidable drainage of funds. With the exception of some private hospitals built for privileged classes of people where money is not a restricting factor, adequate financial resources for new hospitals are not available in most developing countries even though medical care needs are immense. Essential hospital service required for the community can be met most economically only with adequate thought given to planning, design, construction and operation of health care facilities. Even where financial resources are adequate, best use of resources will only be made when sufficient thought is given to planning.

12.1 Guiding Principles in Planning

A hospital is responsible to render an essential service. In fulfilling this responsibility, hospital planning should be guided by certain universally acknowledged principles. The

principles are useful irrespective of the level of planning, i.e. whether at the national level, state level or individual hospital level. These principles were developed in the context of the American system of hospitals but have relevance and usefulness to hospital planning in India, and they are as relevant today as they were over five decades ago.

12.1.1 Patient Care of a High Quality

Patient care of a high quality should be achieved by the hospital through adopting following measures.

1. Provision of appropriate technical equipment and facilities necessary to support the hospital's objectives.
2. An organizational structure that assigns responsibility appropriately and requires accountability for the various functions within the institution.
3. A continuous review of the adequacy of care provided by physicians, nursing staff and paramedical personnel and of the adequacy with which it is supported by other hospital activities.

12.1.2 Effective Community Orientation

Effective community orientation should be achieved by the hospital through adopting following measures:

1. A governing board made up of persons who have demonstrated concern for the community and leadership ability.
2. Policies that assure availability of services to all the people in the hospital's service area.
3. Participation of the hospital in community programmes to provide preventive care.
4. A public information programme that keeps the community identified with the hospital's goals, objectives and plans.

12.1.3 Economic Viability

Economic viability should be achieved by the hospital through taking these measures:

1. A corporate organisation that accepts responsibility for sound financial management in keeping with desirable quality of care.

2. Patient care objectives that are consistent with projected service demands, availability of operating finances and adequate personnel and equipment.
3. A planned programme of expansion based solely on demonstrated community need.
4. A specific programme of funding that will assure replacement, improvement and expansion of facilities and equipment without imposing too much cost burden on patient charges.
5. An annual budget plan that will permit the hospital to keep pace with times.

12.1.4 Orderly Planning

Orderly planning should be achieved by the hospital through the following.

1. Acceptance by the hospital administrator of primary responsibility for short and long-range planning, with support and assistance from competent financial, organizational, functional and architectural advisors.
2. Establishment of short and long-range planning objectives with a list of priorities and target dates on which such objectives may be achieved.
3. Preparation of a functional programme that describes the short-range objectives and the facilities, equipment and staffing necessary to achieve them.

12.1.5 Sound Architectural Plan

A sound architectural plan should be achieved by the hospital through the following:

1. Engaging an architect experienced in hospital design and construction.
2. Selection of a site large enough to provide for future expansion and accessibility of population.
3. Recognition of the need of uncluttered traffic patterns within and without the hospital for movement of hospital staff, patients, and visitors and for efficient transportation of supplies.
4. An architectural design that will permit efficient use of personnel, interchangeability of rooms and provide for flexibility.
5. Adequate attention to important concepts such as infection control and disaster planning.

12.1.6 Medical Technology and Planning

Developments in medical technology are taking place so rapidly that now the use of sophisticated technology determines professional status. The diffusion of medical technology vis-a-vis shortage of resources constantly play on the minds of the planners.

Even in western countries, “rational” planning for medical technology is an evasive subject. The workshop on problems of planning of health services in urban areas in Europe felt that rational planning is aided by a hospital hierarchy of specialization, and by national review agencies which have strong links with similar agencies in other countries. Specialized coronary care units (CCUs) were introduced on the basis of clinicians’ opinions about the effectiveness of such units. The evidence is suggestive that the innovation had serious flaws but once CCUs were established, there was great resistance to formal controlled trials. Some studies suggest that admission to a CCU is no better than treatment at home. However, the professional as well as popular view of these units is so entrenched that it is often difficult to plan for the proper use of these expensive facilities

12.1.7 Hospital Planning Team

One must realize in the very beginning that hospital project planning and execution is likely to be a difficult and frustrating task. All the people involved in the delivery as well as utilization of services are concerned with hospital planning. The people, patients, nursing, medical staff and the management all have their own peculiar requirements.

Technical requirements of a particular professional group in isolation have led to creation of physical forms limited in their utility. On the other hand, the interest of administrators is attracted by other than technical requirements of patients, community and owners. A critical understanding of these relationships is necessary to blend the differences of professional prestige, functional requirements and administrative considerations.

Suitably qualified and competent planning staff are scarce to find. And they will need a long time to do the necessary work in a careful manner at each stage. It is a common practice, once the idea of a hospital has taken root, to go ahead too hastily in the preparation of building plans without much deliberation. The result is that when plans come under the scrutiny of the personnel who are going to work in the hospital, they are found to be all wrong. Therefore the key feature in planning of all good medical facilities should be the extensive participation of the medical staff in the process. In the initial stages time spent on spelling out clearly what the

requirements would be from the staff's standpoint will save both money and time in the long run. Approximately 10 to 12 per cent of the proposed outlay on construction can be saved if changes at the construction stage or within the short span of commissioning the hospital can be avoided.

The basic reason for the hospital's existence—the patient and his human needs—seem to have been subordinated many a times in design consideration. Hospitals which have been designed only to meet the health professional's needs have failed to develop an environment which meets patient's needs. The planning team's views must relate to this regard for the needs of patients, staff and visitors alike and not to the architect's and the consultant's skill in selling their own plans.

The difference between an overall function and the activity components of that function is often confused. To that extent, there is a need to educate the planning group, especially the nonmedical members of the group, in the description of spaces and activities.

The design of a hospital must also meet patients' needs as a human being—his/her social habits, privacy, need for sociability, food habits and so on

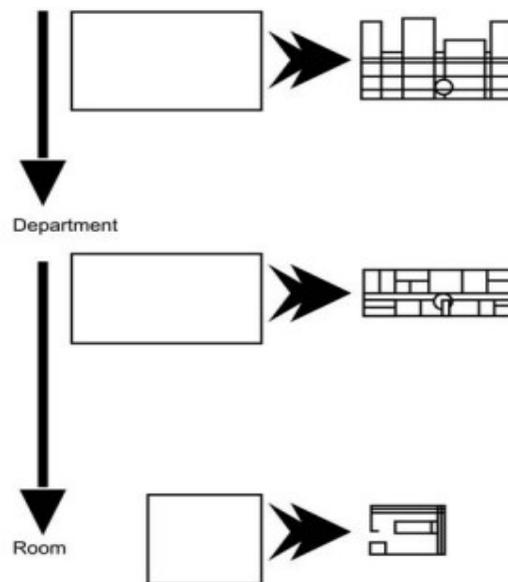


Figure 12.1 Functional programming system of hospital

Because the hospital building language is not understood by doctors, nurses and medical administrators, we have only been lapping up the ideas the architects and engineers thrust on hospitals. Even though the multidisciplinary nature of a hospital project involves

participation by professional doctors, specialists, nurses, technical staff, architects, engineers and medical administrators, the lack of a common technical language needed for understanding of the common objective of this group tends to delay progress, because the language and semantics used by various participants of the group can confuse and create ambiguity. Therefore, medical men must first understand the language of hospital project planning before interacting with architects and engineers.

12.2 Hospital Consultant

Of utmost importance in planning a new hospital or addition of new facilities in an existing hospital, is the utilisation of a competent hospital administrator-consultant. In Europe and USA, a class of professionals called the “hospital consultant” has emerged separate from the professional hospital administrator. It is a matter of debate whether such strict compartmentalisation is useful, or even necessary. A professional trained as a hospital administrator with adequate experience can profitably combine the job of hospital consultant and administrator. Such a professional is referred to here as a “hospital consultant”.

An experienced hospital consultant would have had opportunities to study the operation of many hospitals and similar institutions, to work in different kinds of situations and to compare ideas and developments with others in the medical care field. He can approach a problem objectively and bring proper perspective both to problem solving and planning for the future. Only the specialised knowledge of alternative methods of doing things, and systematic approach can give the hospital project a fair chance of success on a functional basis consistent with economy.

The medical hospital consultant is able to provide experienced guidance in areas which cover, (i) local and regional surveys of medical and health care, (ii) analysis of the demand and need for hospital facilities, (iii) assessment of the extent and range of services required, (iv) equipment selection, and (v) administrative and organisational relationships.

The first step in planning a hospital project is to assemble a planning team. The nucleus of the team can consist of a hospital consultant, one or two medical and lay administrators, a nursing administrator, and hospital architect. Nurse administrators feel that nurses tend to be brought in to react to plans drawn up by others, rather than to participate in their preparation. When she is associated from the beginning, the nurse in the planning team is better prepared to guide and support line nursing managers in determining departmental systems.

It has been suggested by some that a social scientist and even a health educationist should form part of the planning team. Whereas their usefulness at the level of national health care planning cannot be denied, their association with the planning team at the hospital level is unlikely to add to the effectiveness of the team.

12.3 The Core Group

The hospital consultant and one or two medical administrative personnel would work without other medical members in the early stages of the project. However, this core team will need to be enlarged gradually as the project develops by addition of a hospital engineer, a financial expert, and experts in the respective speciality fields when clinical services are taken up for consideration.

As planning requires understanding of the nature of activities and their impact on each other. It is desirable to funnel information through as small a group as possible, with one person assuming primary responsibility and providing the necessary leadership to keep the process in motion.

12.4 Hospital Consultant, Communication and Leadership

Funding bodies, government and community agencies, professional and social groups, suppliers and consumers who are all involved in some stage of the planning process fail to communicate effectively. The role of the consultant therefore, is to maintain progress in decision making by coordinating their work. They must fully understand the proposals and their implications on financial, manpower and other resources.

Many decisions have to be made before the architect appears on the scene. If the planning body has not been able to make such decisions, then it devolves upon the architect to prod the decision-making process, to ask the controversial questions, and at times to cajole or bully in leading the way to decision making. Here, it must be understood that architects start by asking questions on the total budget expenditure for the project, for obvious reasons.

The initiative must remain with the planning body

12.5 Hospital Architect

The architect has to acquire an understanding of the comprehensive technical and administrative needs of the hospital. His responsibility is to translate clinical and administrative requirements into architectural and engineering realities which encompass site selection,

orientation of buildings, supervision of construction, utilities and electrical and mechanical installations. The requirements have to be understood in depth by the architect from the hospital consultant, from which should develop a programme in writing stating clearly all the requirements in comprehensive terms, viz. number of beds, their distribution, departmental needs, area requirements, major equipment, number and type of personnel to be employed, departmental functions and relationships.

An architect can be of value only if he has experience of hospital architecture and construction. There are specialist architects employed at the central and state government levels in the ministry/department of health for work in the government sector. During recent past, architects with hospital experience have also become available in the open market.

Therefore, it will be best to engage the services of architects who are specialists in hospital construction or with experience in hospital projects. As the project goes on, architects and engineers without previous experience in hospital building can be employed in an executive capacity without detriment to the project.

Architectural creativity lies in synthesising all elements into appropriate solution patterns. For a hospital architect, to create a hospital which satisfies the functional requirements of the profession (medical, nursing, administration), meets the cost limits set by the owners and yet retains some quality of architecture, is a task requiring imaginative approach, a high degree of professional skill and ingenuity.

In general, a hospital project undergoes the following phases.

1. Inception
2. Feasibility studies
3. Outline proposal
4. Scheme design
5. Detail design
6. Tender action
7. Construction
8. Commissioning
9. Shake-down

12.6 Assessment of the extent of need for the hospital services

One of the first task of the planning team is collection of data to assess the extent of need for the particular hospital and the range of services required. Such data should usually be available with the existing health care agencies in the government sector with local, district or state health authorities.

There are two methods of assessing the extent of functional need for a hospital. They are

(1) the empirical method which applies the norms of the past and rules of thumb to the problem, with appropriate modifications to suit local conditions, and the

(2) analytical method which makes a more fundamental, systematic approach to the problem. The empirical method hinders evolution of new solutions while as the analytical method lacks the controlling elements of the “norms”. Use of such norms and rules of thumb also tend to perpetuate past faults. The analytical method overcomes some of these faults. In practice, therefore, a combination of the two methods will usually be applied.

12.7 Epidemiological Approach in Medical Care Planning

While applying epidemiological methods in collection and evaluation of scientific evidence relating to health of the population, the need, demand and outcome can only be crudely evaluated. Here, it should be realised that planners get impatient with the timeframe of full epidemiological studies. Epidemiology also overlooks the tremendous importance of the practical and political limitations to epidemiological calculations-decisions on allocation of resources cannot entirely depend on epidemiological calculations alone. Many important issues remain matters of judgement.

12.7.1 Bed Planning

It is unlikely that elaborate calculations to determine number of beds will be required in starting a new hospital anywhere because nowhere has the bed population ratio reached adequate levels. Even in cities where it has achieved such figures, more beds are required because of increasing urbanisation and high density of population.

Here, it should be realised that the hospital facilities in an area are not only utilised primarily by the population in the vicinity of the hospital the direct population, but also by people who will constitute the indirect population in the larger catchment area. When these population factors are worked out, the calculation for total bed requirements can proceed as per

guidelines of WHO. Indices of direct and indirect admissions give the coverage hoped to be attained the assumed average length of stay and the occupancy rate indicate efficiency in the use of services. About 85 per cent bed occupancy is considered optimum.

Example

Data

Direct population	—	6,00,000
Indirect population	—	8,00,000
Admission per year per 1000	}	165 (as per figures suggested by WHO)
Population: <i>Direct population</i>		
Admission per year per 1000	}	55 (as per figures suggested by WHO)
Population: <i>Indirect population</i>		
Average length of stay in days	—	10
Occupancy rate desired	—	85%

Procedure

Admission per year (direct population):	$\frac{6,00,000 \times 165}{1000} = 99,000$
Admission per year (indirect population):	$\frac{8,00,000 \times 55}{100} = 44,000$
Total admission per year	= 1,43,000
Total bed days per year (Total admission × ALS)	} = 1,43,000 × 10 = 1,43,0000
Total bed days per year with 100% occupancy	
$\left\{ \frac{\text{Total bed days per year}}{365} \right\}$	$\frac{1,43,000}{365} = 3918$
Total bed days per year with 85% occupancy	$\frac{3918 \times 100}{85} = 4610$
$\left\{ \frac{\text{Total beds with 100% occupancy}}{85\%} \right\}$	

Deducting the number of already available beds in the region from the figures arrived at will give the shortfall of beds and therefore beds to be planned for that region.

12.7.2 Hospital Size

How big, in terms of the number of beds, should a hospital be?

Between a very large hospital of say 1000 beds or so, which becomes extremely unwieldy to operate, and a very small hospital of say 50 beds or so, a number of bed strength are possible depending on the need of each area. From functional efficiency standpoint, it is advisable to plan two separate hospitals of 400 beds, each with scope for future expansion, rather than a single one of 800 beds. On the other hand, instead of building a small hospital of 50 beds, it would be profitable if these beds are added to an existing hospital in the area under

an expansion project rather than a separate hospital. An exception to this would be if the projected demand is much more than only 50 beds, then these 50 beds can start as the first phase of a bigger hospital with appropriate allowances in land requirement and budget provision made.

If too big, the hospital tends to lose human touch and becomes a somewhat soul-less, impersonal, unwieldy machine. At the lower end of the scale, the general hospital should not contain fewer than 100 beds, for it becomes difficult to provide a differentiated service. A hospital of 200 to 400 beds or thereabout enables adequate departments of general surgery, general medicine, eye and ENT, paediatrics and obstetrics, the several departments being large enough to justify the appointment of full-time specialists to the staff.

When it increases beyond 600 beds, it becomes increasingly difficult to maintain a cohesive administrative structure, resulting in diminishing efficiency. However, the Chinese University of Hong Kong advances valid arguments for both small and large hospitals, the solution being dictated by circumstances.

A 1200 beds hospital in, as it were, “the middle of nowhere” makes no sense, but a similar hospital in a densely populated area such as Hong Kong where land is also at a premium is a different matter. A “large” hospital is inevitably more impersonal than a “small” one. But it also has some positive advantages. Capital cost per bed will be lower and nursing cost almost certainly less, there is more flexibility in the deployment of staff, clinics and clinical investigation areas can be strengthened so as to minimise unnecessary admissions, and by vertical development the use of available land can be maximised. In Hong Kong, there are several hospitals of 1400 beds or more which successfully treat and discharge large number of patients every year. Similar is the case with all our medical college hospitals in India in the government sector.

Civil Hospital, Ahmedabad (Gujrat) is the largest hospital in India, with a bed strength of 2,250 beds, attached to BJ Medical College Ahmedabad with an annual student intake of 250 UG students and having about 500 PG students at any one time. Bed capacity of a hospital is calculated on the basis of beds assigned exclusively for inpatient care. For this purpose, beds in the following are included in the bed count.

1. Observation beds equipped and staffed for overnight use
2. Paediatric bassinets and incubators in paediatric department.

However, beds in the following areas do not form a part of the bed count.

1. Bassinets and incubators in the maternity suite
2. Labour room beds
3. Casualty/emergency department
4. Recovery room
5. Any other which are not equipped and staffed for overnight use

12.7.3 Choosing A Site

General Considerations The second task of the planning team will be to choose the site for the hospital. Site is a very important factor for, upon the suitability of it, will depend the hospital's fate and utility in future. With increasing demand on hospital beds, planning for expansion at a future date should always be kept in mind right at the outset while choosing the site.

Therefore, the site should be large enough to enable future expansion and growth. However, strategic sites large enough for the project requirement may be hard to find in urban areas. In dense urban areas, a large site near the periphery of the present town is suitable that will, in due course become central to the major residential areas at a later date. Close collaboration with local town planning authorities will pay dividends in choosing the site.

The earlier idea that a hospital should always be established on an open site is open to question in large towns and cities. The idea was based on experiences obtained from the pavilion type of wards of old where indeed a large plot was required. The social function of the hospital demands that a hospital should be situated in the heart of society.

Accessibility is the most striking need—the location must be within easy reach of the users. This choice means that the hospital does not belong to an empty, uninhabited office area, but in a living and habitable city centre.

Defining catchment areas in large cities is a first step in deciding the location, subject to availability of suitable sites.

In crowded localities seldom will there be a building site of the usually accepted acreage (2.5 to 5 acres per 100 beds) available in a central place.

12.8 Land Requirements

Determining the requirement of land depends upon many factors. In rural and semi-urban areas, plentiful land may be available permitting the hospital to grow horizontally. However, in urban areas there will always be great premium on land and the only available avenue will be a vertical growth.

Site cover on a plot of land is expressed as percentage as under

12.8.1 Site cover percentage

Total ground floor area of all buildings $\times 100 =$ Total area of site available However, the degree of crowding on a site is considered in terms of floor area ratio (FAR). It is the ratio of the total covered area on all floors of a building to the total area of the site, i.e. if a hospital building standing on a plot of land measuring 12,000 sq. metre has four floors, each floor having 1,500 sq. metre floor area (total floor area on all floors 6,000 sq. metre) the FAR at this site will be two.

A floor area ratio of one represents a building whose added-up floor area of all floors equals the area of the plot of land. This would mean that if a hospital is a two-storey structure, half of the area will be covered with building, and the remaining half available as open space for parking, approach and internal roads, lawns, garden, etc. A plot ratio of 2:1 is the highest that should be considered for hospital development, and that this ratio is acceptable only in the centres of cities, where a high density of buildings is the rule. When a limited site is the inevitable choice for a new hospital, the hospital size has to be limited.

Generally, it will be found that hospitals developed at a plot ratio of 2:1 will give a crowded site, high buildings close to one another, very little open space, and a certain amount of overshadowing and over-looking between the buildings. In suburban and rural areas, a site should be sought that gives plot ratios of 0.5 to one or less. In practice, hospital development with plot ratios between 0.5:1 and 1.5:1 is economically the best although a few hospitals in our metropolitan towns like Mumbai have been built almost on “postage stamp” sites. Whether the hospital is in rural or urban area, the character of the buildings in the surrounding will also influence the degree of build-up on the site. The question remains, as to which form of construction may be the most efficient—the high-rise or low-rise, and which shape will be appropriate. Economy, functional utility and ease of operations should be the guiding factors.

With modern constructional methods, buildings can rise very high, but there are limiting factors too, e.g. cost of building methods, planning bye laws, need to allow for expansion, etc. For city dwellers, the hospital complex of imposing buildings poses no great problem. However, for some who live in rural areas, even visiting the rural hospital can be an alarming event. Many hospitals seem to be more intimidating rather than welcoming.

Big buildings are impressive, however, even smaller size hospitals can be visually comforting. A building can make a good situation better or a bad situation worse. A good hospital building stimulates good hospital care. Many buildings shape and configurations shown in Figure 2.3 satisfy the many demands of hospital planning.

There are many advantages in a compact hospital but more the hospital is planned as a single, massive block, the more difficult will it be to make effective provisions for

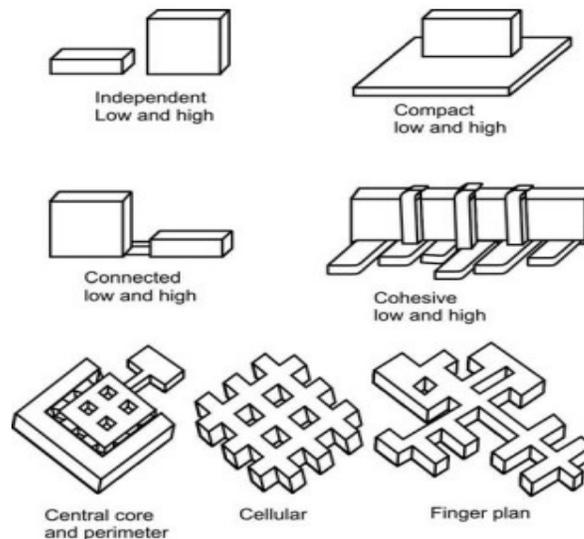


Figure 12.2: Building shapes for Hospitals

growth and change. The concentration of departments close to one another means that only a very little space is available for each to expand into. Further, concentration makes it inevitable that the buildings go up to a fair member of storeys, and to add a department on the fourth or fifth floor of a block is always difficult and sometimes impossible. If such a department needs to be expanded, it means taking over space from some adjoining department above or below it.

This will involve massive redistribution and re organisation of many departments. Therefore, it is necessary to weigh very carefully the advantages and disadvantages of

concentrated versus diffused types of structure. The principal factor in the decision is the predicted amount of change

12.8.2 Soil Structure

In the selection of site, two very important factors that should be looked into the level of subsoil water and the structure of the soil. A preliminary soil survey to determine subsoil water level and the “bearing” quality of the soil will help determine the type of foundation, possibility of constructing a basement, and effectiveness of sewage plant (if it is to be built on the site).

12.8.3 Public Utilities

Three other important considerations in site selection are the availability of water supply, sewage disposal system and electric power.

12.8.4 Water

Water is required for patients and patient care activities in wards and also for the supportive services. The national building code of the ISI suggests 455 litres of water per consumer day (LPCD) for hospitals up to 100 beds and 340 LPCD for hospitals of 100 beds and over.

For planning purposes, the overall requirement of water in hospitals is estimated at about 300 to 400 litres per bed per day. If staff quarters and nurses' hostel are going to form part of the hospital complex, additional availability of water for these will have to be ensured. Storage capacity for three days requirement must be built at the site.

12.8.5 Sewage Disposal

Liquid and semi solid effluent in the hospital originate from all departments and service areas. Solid waste from hospitals is approximately 1 kg per bed per day. Liquid effluents will be about the same as the hospital's requirement of water, i.e. between 300 to 400 litres per bed per day. If a public sewage disposal system is in existence in the area, the hospital sewage disposal will be connected to this system. Otherwise, the hospital will have to build and operate its own sewage disposal plant.

12.8.6 Power

Requirement of electric power is minimum 1 kW on a per bed per day basis. This includes the needs of all departments and services including power requirement of X-ray department, operation theatres, laboratories, central sterile supply department, laundry, and kitchen. A hospital with many life-support systems cannot afford to remain without power even for a short-time. It is preferable that power supply should be available on a multigrid instead of the unigrid system in general use, so that a continuous supply of electricity is assured to the hospital at all times. Besides this, stand-by generator is also a necessity.

12.8.7 Electrical Substation

A hospital will have its own transformer and electrical substation for distribution of power to various areas. The total substation area depending on the transformers capacity

<i>Transformer capacity</i>	<i>Area for transformer</i>	<i>Total substation area</i>
1 × 500 kVA	24 sq. m.	80 sq. m.
2 × 500 kVA	36 sq. m.	130 sq. m.
2 × 800 kVA	40 sq. m.	135 sq. m.
2 × 1000 kVA	40 sq. m.	150 sq. m.

Figure 12.3: Area for electrical substation

12.8.8 The Master Plan in Its Totality

The third task of the planning team is to prepare the draft master plan document. It is never possible to achieve perfection in planning, and the best compromise may have to be adopted. Once the results of studies based on data so far collected become available, and after careful consideration of various other factors so far considered, the architect will have enough basic material to prepare a draft master plan for the site as a whole. Preparation of a master plan is more or less equivalent to an exercise in town planning on a miniature scale. Although the details of functional requirements of wards, departments, and services are not known in precise terms at this stage, the hospital architect should be able to calculate the approximate volume of each building

A master plan takes into consideration the future development of the hospital. By now it will be apparent whether it can develop into a concentration of multi storeyed blocks, or be a comparatively loose conglomeration of spread-out structures over larger areas on the ground

employing low buildings. With these the master plan should take into account the circulation routes, areas to be allotted for each department, relative dispositions of departments into functional zones, compactness, also considering light, wind, hospital engineering and hospital hygiene aspects.

12.8.9 Circulation Routes

The utility and success of hospital plans depend to a large extent on the circulation routes on hospital site and within buildings. Wayfinding in hospitals is a major problem for most new patients and many old ones too, leaving them with a feeling of helplessness and frustration.

To ensure placement of departments and equipment in proper relationship, flow charts depicting movements of patients, personnel and visitors should be developed for predicted movements between departments and within departments. These charts should be provided to the architect and checked later against his preliminary drawing.

A basically linear circulation system simplifies the development of the project in stages. There are two types of circulation in the hospital: internal and external.

12.8.10 Internal Circulation

Internally, traffic routes are required for linking major clinical departments for use by patients and staff, and for delivery of supplies to these departments. The circulation space involves corridors, stairways and lifts. Corridors with less than 8 feet width are not desirable in hospitals, and protective corner beading is a necessity in hospital corridors.

A large volume of internal traffic in hospital involves use of patient trolleys. Supplies and stores are also moved on trolleys. In multi storeyed buildings, provisioning for vertical movement of patient trolleys has, therefore, to be catered for. In high-rise buildings the problems of internal circulation arise from wide dispersion of vertical circulation points. It may be economical in effort to concentrate lifts at one place than distribute them among different parts of the building: four lifts banked together will give the same service as eight individual lifts scattered at separate points. Two lifts are the minimum for any multi storeyed buildings. In not so high buildings, planning for ramps for trolley traffic (ramp well) must also be considered in addition to the stairwell.

The point to remember while considering internal circulation is that internal traffic should remain orderly, and there is no undue criss-crossing of the patients, staff, supplies and visitors. Use of multi-storeyed buildings is more economical than low buildings connected by long corridors and scattered lifts. In the linear spine concept of a building, additional departments are entered from a central spine, which may have several levels. It steers the circulation, takes the hospital growth easily, and labyrinthine patterns, so common in large buildings, are avoided. An example of the linear spine concept is depicted

In considering the feeling of getting lost in the labyrinth of a large hospital, the hospital is compared to a village where its central focus is the high street or the market square, wherefrom everyone living or visiting the village are able to orientate themselves.

Planning for efficient internal circulation should therefore consider a central recognisable main communication artery serving the whole complex, which cannot be confused with departmental corridors. But it is quite surprising that entrances to major departments in hospitals are given so little prominence and so little identity.

The entrance door to a department should be approached through a “pause space” which serves as a transition between the public and the private domain. Like the transition from outside to the hospital is through the main hospital entrance, so the transition from the hospital street to the department should be through its distinctive pause space.

Ramps, steps, stairs: Handrails must be provided on both sides of steps and stairs, and should extend beyond the first and the last steps on at least one side. Hard, level, nonskid surfaces are essential for steps and stairs, and hand rails must not be of slippery material.

12.8.11 External Circulation

Only one entrance to the hospital for vehicular traffic from the main road is desirable. Provided the entrance and exist points are wide enough to take two lanes of traffic, one entry has the advantage of clarity for all visiting traffic, and one exit the advantage of security from administrative viewpoint.

The volume of external traffic reaching a hospital is quite enormous. Not only the patients but supplies, ambulances, staff and visitors need access to the hospital at different points. Supplies and stores also arrive on handcarts, pushcarts, rickshaws and other vehicles. Patients, their attendants and visitors come to hospitals in a variety of transport. Therefore,

appropriate areas have to be earmarked for scooter, car, rickshaw and bicycle parking facilities for patients, visitors and staff.

The main bulk of hospital stores are delivered at one or two central points. Independent access will be helpful in transport of heavy or bulky articles directly to the point at which required. These could also be useful to bring in fire fighting vehicles in case of fire in the hospital.

The circulation routes will be influenced by the orientation of the site, e.g. a site with its broadside facing the main entrance from the road, a narrow site at right angle to the main road, or a site which is irregular in spread and level. Some site may be sloping, but a sloping site is not necessarily a disadvantage. The architect can exploit it by planning part of the structure on stilt columns and using the basement for car parks, goods delivery points, soiled disposal, and storage.

12.8.12 Distances, Compactness, Parking, Landscaping and Visual Impact Distances

Distances must be minimised for all movements of patients medical, nursing and other staff and for supplies, aiming at minimum of time and motion. Similarly, the routes which the patients will have to take on stretchers, wheelchairs or on foot from their wards to the radiography department, laboratory and physiotherapy require careful thought to minimise the length of these routes.

12.8.13 Compactness

Functional efficiency and economy depend also on the compactness of the hospital. Horizontal development demands more land involving extra costs in development and installation of services, roads, water supply, sewage, electric lines and so on. From this angle, multi storeyed construction has the advantage of being convenient because of compactness.

12.8.14 Parking

For each inpatient bed there is likely to be at least one visitor a day. For each inpatient bed, there will be about 3 outpatients, many of them coming in cars, taxis, three wheelers and two-wheelers. One car parking space per two beds is desirable in metropolitan towns, lesser in smaller urban areas while as much less in semiurban and rural areas.

Additional parking for three-wheelers, scooters and motor cycles and separate parking for bicycles and rickshaws should be considered. Employees and staff parking areas are preferably separated from public parking.

12.8.15 Landscaping

The psychological effect of the visual impact of attractive grounds, buildings and surroundings on patients, visitors and staff cannot be underestimated. If possible the building is best located on a relatively high ground, the elevation being not so great to be a handicap for those approaching on foot.

The site should permit orientation of the structure in such a way that most of patients' rooms will derive maximum benefit from natural light, and maximum advantage should be taken of the prevailing wind for natural ventilation. In the tropics, the long sides of buildings occupied by patients should face north and south as much as possible. Deft use of sloping sites can be made by the architect for car parking, temporary refuse storage, and recreational activities.

12.8.16 Visual Impact

Architectural handling of the design determines the visual impact of the hospital. The architect has the opportunity to give visual expression to the human units of which the hospital is composed, or suppress these divisions in the interests of uniformity. For instance, in designing a ward building, he could allow each nursing unit individual expression on the facade of the building, or by giving each unit an identical series of windows, he could carry uniform architectural treatment over the whole.

12.9 Summary

Healthcare middle managers (HMMs) were recognized in this systematic review as the leadership level closest to everyday clinical practice, any manager who is supervised by an organization's top manager and who supervise one level above line workers and professionals. This leadership level is often referred to as first or frontline leaders, nursing leaders, or clinical managers. This review included HMMs in public healthcare services. HMMs have extensive responsibility in healthcare organizations. Their central position, between executives and frontline employees, makes HMMs crucial in limiting knowledge and information gaps and translating top-level policies, strategies and means to improve patient quality and reduce harm. Positive leadership has been related to increased patient satisfaction, fewer adverse events,

lower patient mortality, medication errors and restraint use, and fewer hospital-acquired infections. Nursing leadership directly and indirectly influences nurses' motivations. Close to the organizational context, HMMs possess unique knowledge, skills and experience, depending on their individual and the organization's capacity and capability. Capacity includes individual features such as technical expertise, creative thinking skills, social skills, and organizational understanding. Capability includes what HMMs are able to implement, such as the ability to identify and define problems and handle complex contexts, the ability to adapt to change, generate new knowledge and continuously improve

12.10 Key words

Hospital Consultant- An experienced hospital consultant would have had opportunities to study the operation of many hospitals and similar institutions, to work in different kinds of situations and to compare ideas and developments with others in the medical care field

Hospital Architect- His responsibility is to translate clinical and administrative requirements into architectural and engineering realities which encompass site selection, orientation of buildings, supervision of construction, utilities and electrical and mechanical installations

Hospital planning team- Suitably qualified and competent planning staff are scarce to find. And they will need a long time to do the necessary work in a careful manner at each stage.

12.11 Self-Assessment Questions

1. Briefly explain the duties of hospital Middle Level Managers?
2. Elucidate the Structure of the Hospital?
3. Examine the components that are required for the Hospital structure?

12.12 Suggested Readings

1. Sakharkar, B.M., & Jaypee Brothers (Jaypee Digital) (2009) Principles of Hospital Administration and Planning, (Jaypee eBooks), Jaypee Brother Medical Publisher Private Limited.
2. Hospital Administration (2017) DC Joshi and Mamata Joshi Jaypee Brothers Medical Publishers (P) Ltd.; 1st edition
3. Hospital and Healthcare Accreditation (As Per the Guidelines of NABH, NABL, JCI) (2018) Brajkishore Rajoriya Six Sigma Star Healthcare (P) Ltd, New Delhi, India; NABH, NABL, JCI.

4. Performance Improvement in Hospitals and Health Systems: Managing Analytics and Quality in Health care (2018) James R. Langabeer II CRC press Taylor and Francis Group Productivity Press Book.
5. Service Quality for Facilities Management in Hospitals (2016) Low Sui Pheng & Zhu Rui (auth) Low Sui Pheng & Zhu Rui (auth.)Springer Publications
6. Introduction to Health care quality Management (2009) Patrice Spath AUPHA press Washing Ton PC.,

LESSON -13**EVALUATION OF HOSPITAL SERVICES****Learning Objectives**

- To study the Objective Evaluation of Hospital
- To Understand the Evaluation of Methods
- To Learn the Individual Clinical Supportive Service
- To Know the Tools of Evaluation Service

Structure

13.0 Introduction

13.1 Objective Evaluation of Hospital

13.2 Evaluation of Methods

13.2.1 Evaluation of End results

13.2.2 Difficulty with outputs

13.3 Steps in Evaluation

13.3.1 Disciplinary Case

13.3.2 Physical Facilities and Equipment

13.3.3 Clinical Service Facilities

13.3.4 Load Work

13.3.5 Effective Use of Bed

13.4 Facilities

13.5 Human Resources

13.5.1 Medical staff

13.5.2 Nursing Technical Paramedical staff

13.5.3 Service Provided

13.6 Individual Clinical Supportive Service

13.6.1 Medical Service

13.6.2 Surgical Service

13.6.3 obstetrical Service

13.6.4 Anaesthesiology Service

13.6.5 Laboratory Service

13.6.6 Paediatric Service

13.6.7 Radiology Services

13.6.8 Outpatient Department

13.6.9 Physiotherapy and Rehabilitation

13.6.10 Nursing Services

13.6.11 Communicable Disease

13.7 Tools of Evaluation

13.8 Evaluation of Care

13.8.1 Evaluation of Management Service & Use of Resources

13.9 Tools of Evaluation

13.9.1 Inspection

13.9.2 Reports & Returns

13.9.3 Statistical Quality Control

13.9.4 Professional Review

13.9.5 Social Survey

13.9.6 Cost Studies

13.9.7 Medical Audit
13.10 Summary

13.0 Introduction

Services provided by a hospital incorporate elements which can be examined objectively, subjectively or both. Every enterprise is actively concerned with quality assurance by determining the quality of the commodity it produces and keeping in touch with consumers to secure their maximum satisfaction. As a result of advances in medical technology, introduction of complex diagnostic and therapeutic procedures, introduction of high technology and other sophisticated elements, some vital issues are being raised, such as: what is the quantum of output and degree of excellence of hospital service? What is the cost of operating the hospital? Is the hospital spending more because of inefficiency of hospital operation? Could the same quality of medical care be made available at lesser costs? What is the extent of patient's satisfaction? What is the final outcome or end results in terms of indices like recovery rate, partial recovery rate, death rate, complication rate, etc.?

However, due to the diverse nature of activities, large number of variables and subjectivity, results are difficult to measure in hospital services. By its very nature, a great part of hospital output will always be intangible. Therefore, the measurement of tangible and intangible outcomes must go hand in hand, and no watertight compartmentalisation can be made between them. Because of this the evaluation process has greatly depended upon qualitative judgements in addition to quantified data in most instances.

Evaluation of hospitals is a challenge because of the variation in the intensity of care, equipment, personnel, and facilities in different types of hospitals. One cannot be sure that the instruments of evaluating the services in hospitals could be made as sensitive, valid, accurate and specific as one finds in industry where accomplishments can be measured in terms of an accountable unit, viz., rupees and entirely by financial tools like profit and loss statement and balance sheet. Because of this multidisciplinary nature, medical care in hospitals does not lend itself to simple and direct units of measurement. What one can measure are therefore certain components or characteristics of it from which one can draw inferences and implications.

The last stage in the management process, viz. evaluation is designed to measure the efficiency and effectiveness of the services after planning, organising, directing and controlling. No organisation worth its name can survive and progress unless it overcomes its

shortcomings and builds upon its past performance. One cannot substitute form for substance and appearances for reality for all the time. Sophisticated technology in high-tech hospitals is equated with high quality care in the minds of both public and the providers, and high costs and quality are considered synonymous. Nothing can be farther from the truth. Considered from all aspects, there are three main reasons which warrant objective evaluation of hospitals.

13.1 Objective Evaluation of Hospitals

1. It is to safeguard interests of the recipients of hospital care. A layman cannot possibly judge for himself whether the care he is receiving is judicious and scientific. He has in sufficient protection against malpractices, exploitation and inefficiencies of hospital's medical staff and systems. Hence, it is the moral and legal obligation of the administrative and professional authorities to ensure that hospitals render safe and efficient medical services to patients. Besides, the legal accountability of the hospitals also cannot be overlooked.

2. It is to locate inadequacies and shortcomings of the hospital staff, its plant and machinery and what is most important, its working systems. Apparently, the hospitals' end-results cannot be good if there are no proper facilities or appropriate technical environment in which the physicians can work.

3. It is to provide the authorities, viz. governing body, board of trustees or owners a sound appraisal system of the effectiveness of managerial staff at various levels, hospital administrators and individual physicians, and furnish valid facts and data to regulate their future development.

Productivity is the relationship between resources used and results produced, i.e. the input-output ratio. A periodic assessment of the services will show the existing state of affairs, and therefore scope for corrective action for quality assurance.

Quality assurance aims at establishing a programme for monitoring and evaluating the quality of care, but is not synonymous with use of sophisticated procedures and invasive technology. It entails a cost-effective approach for optimum utilisation of resources and establishing ongoing quality control programme.

Evaluation has been defined as the process of determining the degree of success in achieving predetermined objectives. It is also defined as "Measurement of action against accepted criteria and interpretation of relationship amongst them". Appraisal, assessment,

progress reporting, progress assessment, and review and analysis are some of the terms which have been used synonymously with evaluation.

Evaluation is one of the final tasks in the process of management

What to Evaluate?

In hospitals and health care, there are five indicators through which the quality of medical care and services can be assessed.

1. The organisation
2. The process
3. The content
4. The outcome
5. The impact.

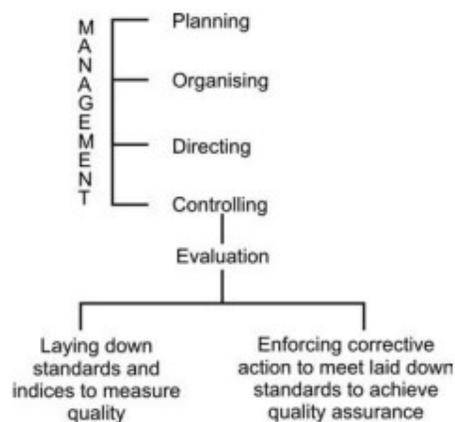


Figure 13.1: Evaluation as a Part of Management process

Traditionally, these can be grouped into three categories, viz. the means (structural factors), the methods (process factors), and the end results (outcome factors).

Evaluation of the “Means” Evaluation of the “means” covers the inputs, ascertaining whether the hospital has been provided with optimum quantity and right quality of staff and physical facilities as in the shape of buildings, equipment, drugs, diet and supplies.

Evidently, if the means are inadequate, the quality of hospital services would be of a low standard. Basically, this is an evaluation of the “organisation”. The inputs that go into the production of medical care are the men (various categories of personnel), money, materials and machines. Effective utilisation of these resources determines the organisation’s effectiveness.

The quality assurance committee has to ensure that there has to be a basic minimum infrastructure regarding space equipment, physical facilities and the staff requirement. The type of organisation needed for each department or service, that is the authority-responsibility relationship, coordination and the budget has to be tailored to the need of each department keeping in view the overall hospital objectives.

13.2 Evaluation of the “Methods”

Evaluation of the methods is determining whether there is an effective utilisation of the available human and material resources and whether the hospital’s policies and working procedures are sound and judicious. Understandably, if the hospital’s functioning and administration is poor, then the quality of its care cannot be of a good standard. This is an evaluation of “process” and “content” of the hospital care. The quality assurance committee lays down the standing instructions for various procedures, patient documentation, and other records. The evaluation is carried out through many standing subcommittees like tissue, utilisation, therapeutic, nursing and infection control.

13.2.1 Evaluation of the “End-results”

Evaluation of the “end-results” means judging the effectiveness or ultimate outcome of the benefits derived by individual patient and the community from the hospital. This is an evaluation of the “outcome” and “impact”.

Evaluation studies of each of the above five aspects of a hospital’s operations, i.e. the organisation, process, content, outcome and impact can be a very complex process. For example, the evaluation of organisation and process requires detail analysis with the help of operations research techniques and quantitative methods. On the other hand, a lot of subjectivity is involved in evaluating the range quality and quantity of services provided by the hospital.



Figure 13.2: Conceptual framework of Evaluation

It is not always possible, or even necessary, that evaluation of all the above should be carried out simultaneously, although the need for such simultaneous evaluation is apparent in the overall context. But since the objectives, and derivative objectives of hospitals are not available in clear terms, sometimes what is only possible is evaluation of output—both in terms of qualitative and quantitative determinants, and evaluation in terms of cost and utilisation.

13.2.2 Difficulty with Outputs

Nevertheless, a hospital does not have just one output. A medical ward may “produce” deaths and discharges and occupied bed days, the hospital laboratory may produce different types of investigations unrelated to each other in their complexity and cost, the OPD “produces” outpatients treated, and so on. Thus, many different types of outputs are involved and each must be matched to the appropriate input(s).

Then, some outputs may be ends in themselves, and others the means to an end. A hospital is not primarily an institution to produce meals, nevertheless meals prepared per cook or distributed per catering assistant is as valid a measure of catering performance as admissions per bed is of overall hospital performance.

All outputs must be measurable but unfortunately, many cannot be precisely measured. Therefore, in the hospital evaluation will contain many performance measures which are

qualitative; it will also contain other ratios which may not measure performance but which only help to explain levels of performance.

13.3 Steps in Evaluation

There are five steps in the process of evaluation.

Step-I: Definition of the Purpose and Scope of Evaluation In step I, the scope will have to be stated in such terms like whether it will be with reference to technical considerations, administrative considerations, consideration of effectiveness or efficiency, or a combination of one or more of them.

Step-II: Detailed Description of the Hospital System and Its Operation One needs to clarify and define the objectives of the hospital in as specific terms as possible, the steps, activities and Obviously, an adequate number of each of these categories of personnel should be available on the basis of certain established standards, such as one doctor or one nurse for so many patients, a technician for so many tests, a radiographer for so many radiographs to be taken, a ward orderly for so many beds, and so on. Thereafter, the availability as well as effective utilisation of this staff has to be ensured by making rational assignment of duties, authority and responsibility. The points that should be noted are as follows.

Number authorised and available: Is additional manpower in any of these categories based on workload. Qualification and experience of the staff: Is it adequate?

Availability of specialist or consultant staff: Are they available when needed or when their services are called for? Can honorary staff fulfil this requirement? Proportion of honorary staff to full-time salaried staff.

Absentee rate: Apart from the sudden absence from work due to common cause such as indisposition and planned leave of absence, is there any large-scale absenteeism?

13.3.1 Disciplinary cases:

Undue proportion of cases initiated against staff shows serious lacunae in personnel policies. Avenues of promotion, pay structure, housing and health benefits and other perks: These have a bearing on job satisfaction. Continuing education and in-service training of all categories of hospital staff in their respective spheres is necessary to keep up the standard of services. Regular organised programme should be designed and made available for in-service

training of personnel. Besides, suitable incentives should also be provided by the hospital for enhancing one's qualifications.

13.3.2. Physical Facilities and Equipment

The location of various departments within the hospital, design of the wards and relationships of nursing stations to the patient beds should be such as to promote smooth flow of patient care activities. Adequate space, good design, functional layout, clean and pleasant environment all contribute to better services. Availability of necessary equipment, both technical and commonplace, in good working condition at the right place also affects patient care.

13.3.3. Clinical and Service Facilities

Adequate and appropriate clinical facilities are the most fundamental requirements for good patient care which is the reason for the hospital's existence. The clinical units should also be complemented adequately by diagnostic and supporting departments, viz. pathology, radiology, blood bank, linen service, diet service and so on. These departments should be organised around the clinical services routine so that they provide effective service to the clinical areas. Coordination and synchronisation of work in these two areas will increase the work output as well as effectiveness.

13.3.4. Load of Work

Load of work on a particular hospital (or department within a hospital) affects the quality of care and serves as an index for augmentation of resources and inputs, or otherwise. The workload can be assessed from routine hospital statistics. Comparison of figures of one period with that of the previous period or corresponding period of previous year can give an idea of the trend of workload and utilisation of hospital facilities.

13.3.5. Effective Use of Beds

A hospital bed is the basic unit of hospital service. Utilisation of hospital beds is a factor contributing to, as well as a measure of, quality of care. Effective use of beds means:

1. Only patients requiring admission are hospitalised.
2. A patient should remain in the hospital for the minimum number of days so that a greater number of patients can be treated on one bed in the year. But this will have to be balanced

keeping in view the patients' condition. Too drastic a reduction may increase the frequency of readmissions.

3. Assessment of the patients admitted in a ward should be carried out frequently both by the senior medical staff and hospital administrator to find out unnecessary admissions or unduly prolonged stay.

4. The outpatients services should be efficiently conducted to minimise demand on inpatient beds.

5. Hospital Administration Management has become a science and management of a hospital both a science and an art. Hospital administration is more than institutional management; it is general administration, business administration, health and medical administration all combined together. Proper administration of a hospital by a trained and experienced hospital administrator would add to the efficiency and effectiveness of a hospital.

Within the above framework, the organisation in terms of physical facilities equipment and human resources, the service provided in terms of quality, quantity and cost, and the extent of utilisation of the available facilities form the mainstay of a general evaluation of a hospital. To this must also be added the element of consumer satisfaction. The points to be covered under each of above are given below.

In addition to this general framework, each individual functional area must also be looked into. Brief highlights are also subsequently given in respect to each of these areas.

Organisational Structure

1. Centralised or decentralised
2. Unity of command
3. Span of control of key functionaries
4. Authority and responsibility
5. Delegation
6. Coordination
7. Governing and executive body.

13.4 Facilities

1. General structure

- Location
- Architectural design
- Internal traffic pattern
- Roads, parking spaces, movement
- Facilities for visitors
- Environmental sanitation.

2. Primary facilities

- Location, layout, functional relationships, operative policies and procedures with regard to
 - i. Wards/patient care units
 - ii. Outpatient department
 - iii. Emergency and casualty
 - iv. Operation theatres.

3. Supporting facilities

- Location, layout, functional relationships, operative policies and procedures with regards to
 - i. Radiology
 - ii. Laboratory
 - iii. Blood bank
 - iv. Pharmacy
 - v. CSSD
 - vi. Laundry
 - vii. Dietary
 - viii. Medical records, etc.

13.5 Human Resources

13.5.1 Medical Staff

1. Organisational hierarchy
2. Number of medical staff
3. Qualification and training
4. Promotional avenues
5. Attitudes, ethics, bedside manners, cooperation and motivation
6. Job satisfaction
7. Service rules, regulations, byelaws
8. Committees—staff, medical audit, utilisation, tissue committee, etc.
9. Staff meetings, clinicopathological conferences.

13.5.2 Nursing and Technical Paramedical Staff

1. Number
2. Qualification and training
3. In-service training, advancement, promotional avenues
4. Attitudes and motivation
5. Job satisfaction
6. Grievance procedures.

13.5.3 Services Provided

Quality

1. Existence of medical audit or utilisation review committee and radiology, tissue and chart review committees
2. Unnecessary admissions, investigations, operations

3. Delay in admission, investigation, operations, consultation.

Quantity

1. Number of inpatients treated 2. Number of outpatients treated 3. Number of operations performed
4. Number of deliveries conducted 5. Number of radiographs taken
6. Number of laboratory investigation done.

Cost

1. Cost per bed day 2. Cost per medication 3. Investigation cost per inpatient
4. Investigation cost per outpatient 5. Total drug cost 6. Visible scope for economy in costs\

Utilisation

Utilisation of Inpatient Facilities

- Bed occupancy rate (BOR)
- Average length of stay (ALS)
- Bed turnover internal (BTI)
- Bed turnover rate (BTR)
- Dead bed space.

Utilisation of Outpatient Facilities

- Number attended
- Waiting time
- Service time.
- Utilisation of Supportive Services
- Idle time
- Productive time.

The meaning of efficiency and productivity in medical care is not easy to define especially if it is to be expressed in generally accepted economic terms.

Consumer Satisfaction

- Extent of involvement of the community
- Number of complaints
- Staff attitudes to patients and visitors
- Extent of “left against medical advice” (LAMA) cases
- Popularity of the hospital.

It should be realised that patient satisfaction is only an indirect or proxy indicator of the quality of hospital performance. Gross Results, Complications, Hospital Infection Rate Gross Results

These gross results are the end results of hospital care in terms of patients:

i. fully recovered, ii. partly recovered, iii. improved, iv. not improved, v. died, and
vi. LAMA.

Complications may arise any time during hospitalisation. Usually the complication rate does not exceed 2 to 4 per cent.

Hospital Infection Rate In ideal condition hospital infections should not occur at all. However, they do occur for reasons both within and beyond the control of hospitals. With all the care that the hospital can take, hospital infection rate should not exceed generally acceptable levels. Apart from attention to procedures pertaining to equipment, housekeeping, supplies and sterile techniques, precautions should be taken to reduce infection brought in by patients, visitors and hospital personnel.

13.6 Individual Clinical and Supportive Services

13.6.1 Medical Services

Medical services are the sheet anchor of most general hospitals. They are so closely related to all other departments that sharp lines cannot be drawn to delineate specific responsibilities.

Policies and procedures should not only be available in writing but updated periodically. Consultations should be readily available and the organisational relationships with related specialities should be clearly understood. Therapeutic procedures must be only on written prescription of clinicians, consultants, and the audit committee must have clear and well-established criteria of professional care.

13.6.2 Surgical Services

Surgical services are the most spectacularly visible function of the hospital. In a general hospital, all branches of the surgical services—diagnostic, therapeutic and operation theatres are combined as one department.

Again, the policies and procedures should be available in writing. A “credentials committee”—the equivalent of medical audit committee of medical services, must have clear criteria regarding surgical procedures to guide it. All case records, including laboratory reports and consent to Surgery must be complete prior to operation. The tissue removed at operations must be sent for pathology and the report available in patient’s record. A “tissue committee” should review all such reports. Policies should be laid down and procedures established with regard to hospital infection control, sterile supplies and safety standards.

13.6.3 Obstetrical Services

Obstetrical services are also organised like other department with policies and procedures peculiar to its requirement.

Qualified staff should be available even off-time with availability of consultants for complicated cases. Deliveries conducted and births and deaths must be properly documented and records maintained. There should be a system to investigate all maternal and infant deaths. Maternal death rate (ratio of maternal deaths to obstetrical discharges) in good hospitals does not exceed 0.25 per cent. Some infant deaths are inevitable, but new-born infant deaths should not exceed 3 per cent of all births.

13.6.4 Anaesthesiology Services

Anaesthesiology service is the least visible service in a hospital, but as important as others. Apart from the high professional knowledge and skill of the anaesthesiologists, the service should conform to all the standing policies and procedures. There must be a pre anaesthetic physical check-up including relevant urine and blood examinations. Safely in operation theatres is normally assigned to anaesthesiology service. Standing order on safety regulations must be available and enforced. Deaths indirectly attributable to anaesthesia should not exceed one death in 5000 anaesthesia's.

13.6.5 Laboratory Services

Services appropriate to the need of the hospital should be available, conducted and supervised by competent technicians and pathologists respectively, with appropriate system of maintenance of records of tests and standing orders and procedures. The calibration of equipment should be carried out regularly. Evaluation of procedures pertaining to sterile supplies, infection control and functioning of the "infection control committee" to monitor the above. All tissues removed at operations should be examined to establish agreement between preoperative and postoperative diagnosis, to check on normal tissue removed and to evaluate results.

Normal tissue removed including appendicectomies, hysterectomies and removal of hernia sacks does not generally exceed 10 per cent all operations. The tissue committee should establish criteria for surgical interventions for certain operations such as tonsillectomies, appendicectomies, hysterectomies, caesarean sections and the like. Caesarean sections usually do not exceed 5 to 10 per cent of total live births.

13.6.6 Paediatric Services

Except in large hospitals, this service will generally be a part of medical service. However, in whatever way it is organised, the basic requirement is that it is geared for special attention to the peculiar needs of children and infants. The physical facilities, policies and procedures should have been geared to these needs.

13.6.7 Radiology Services

Facilities, including the number of radiographic machines must be adequate to meet the requirement of the diagnostic and therapeutic procedures, with competent medical and technical paramedical staff. Policies and standing orders pertaining to radiation safety factors including accidental exposure hazards to personnel must be firmly adhered to. A fool-proof system of records of all radiological investigations should be in operation.

13.6.8 Outpatient Department

It should be an extension of the total hospital service itself, for those who do not require hospital bed care. The quality of care should be of a high standard, and all professional activities should be under supervision of a senior staff member. Adequate number of physicians should be available, with appropriate coordinated support from laboratory, radiology and pharmacy services. Adequate medical records including laboratory and radiology reports should not only be maintained, but a system of immediate retrieval should be available. Waiting time and service time per patient are two important indicators for outpatient care. Emergency and casualty services with appropriate staff should be available round the clock.

13.6.9 Physiotherapy and Rehabilitation

Physiotherapy and rehabilitation is increasingly becoming an integral part of general hospitals. The service should be operated under the direction of medical staff qualified in physical medicine and should also have appropriately qualified physiotherapy and occupational therapy staff. There should be a coordination with the surgical and medical services and outpatient department which feed this service. A committee of rehabilitation therapy should formulate the operational policies and procedures and evaluate results of care.

13.6.10 Nursing Services

Nursing services implement the physicians' plan of care and provides nursing care for the patients' assessed needs. The quality of hospital care is to a significant extent associated

with the level of nursing care. There should be an administrative authority, the chief of nursing, with other appropriate categories of nurses in adequate numbers. Again, there should be written policies, procedures in relation to the essential supplementary duties connected with supplies, linen, medical stores, diet and like. There must be available an appropriate number of nurses in all patient care units outside the usual hospital working hours. Student nurses must always work in the ward under supervision.

Appropriate authority and responsibility should be delegated to the nursing staff. There should be periodic meetings of the nursing staff to discuss patients' nursing care and problems and to provide opportunity to improve their knowledge and skills.

13.6.11 Communicable Diseases

All communicable diseases must be reported to the local health authority. Isolation facilities must be adequate, with integral toilet facilities. Gowns, masks and gloves must be worn by attending staff and personnel, hands scrubbed after contact. Appropriate facilities for proper disposal of discharge from patients must be available. Mattresses, pillows, linen should be aired in the sun and linen sterilised. The walls and furniture should be washed after discharge of the patient, and the room aired for 24 hours before admitting new patient. Utensils, dishes and similar items used by patients should be boiled.

13.7 Tools of Evaluation

The methods that can be used for carrying out evaluation of medical care and hospital services are as follows.

1. Direct observations
2. Analysis of records and documents
3. Interviews with staff, workers, patients, visitors
4. Work study, activity sampling, organisation and methods (O and M) study and operations research
5. Analysis of medical records.

13.8 Evaluation of "Care"

Services and Patient Welfare When satisfactory treatment is assured, the patient still has the need for his or her stay in hospital to be made as free from unpleasantness as possible.

“Measuring” comfort and ease of mind poses difficulties. Because the quality of medical and nursing care are not easily assessable nor patient satisfaction, the evaluation of patient welfare has therefore to be subjective. The important needs of the patients that must be satisfied are the craving for understanding of their illness, regard paid to their comfort and dignity, some degree of privacy, rest and sleep, freedom from unnecessary noise, contact with family, suitable pastime, good food, smooth transition to other forms of care or return to home life. The methods used in evaluating these are direct observations, analysis of relevant records and documents, and information gathered through interviews.

Standards of services for such intangibles cannot always be quantified. Little headway has been made by hospitals of various state medical services, which are the biggest organised medical care systems, with setting of standards or spelling out elements of good practices for day-to-day services. Speaking of a nationalised health service, the NHS of UK has laid down standard practices in the facilities design, equipment, auxiliary services and many other areas which serve as readily available guides to achievement and evaluation. For example, on the waiting time of patients in the outpatient department, it was accepted that if less than 75 per cent of the patients are seen by a doctor within half an hour of their appointment time or if more than 3 per cent have to wait for an hour, the outpatient arrangements need investigation. All hospitals need to develop minimum acceptable standards in as many areas as possible.

13.8.1 Evaluation of Management Services and Use of Resources

Many obvious constraints result in poor care in hospitals. Insufficient resources in equipment, physical facilities, consumables and staff, and nonavailability of essential drugs and supplies cannot produce good patient care. Poor maintenance of buildings, plant and equipment and lack of skilled and motivated staff also compromises the quality of care. These become obvious even without any study.

However, some methods developed by industrial management are of assistance in the evaluation of management services and the use of resources in hospitals.

1. Work study, the systemic, objective and critical examination of all factors which govern the operational efficiency of any specified activity in order to make improvements by optimising use of resources per unit of output is one such tool. The technique is suitable for application in industrial type departments such as laundry, kitchen, stores, central supply and maintenance.

2. Organisation and methods (O and M) study carries out a systematic examination of the organisational structure and the methods employed in carrying out work. This has applicability in the administrative as well as clinical areas such as laboratory, X-ray, central sterile supply department (CSSD), and nurse scheduling. The emphasis is on implication, improvements and cost saving

3. Operation research takes help of the technique of construction of an analytical model of the problem and a mathematical abstraction from the real situation. A solution is found by manipulation of the model. By changing one or more variables in the model's equations, it is possible to predict the consequences of the decision which the changed variables represent. It has been successfully used to assess the workload in radiology department, effect of improved OPD facility, on demands for beds, effect of starting an ICU on other services and many such predictions. However, the help of operation research specialist will have to be obtained for this.

In spite of the many methods of evaluation of hospital activities with each type of activity utilising one or more of such methods, there are certain well-recognised but simple management tools in evaluating quality of care in hospitals.

Different types of hospitals may use different tools or one or more of them in combination depending upon the peculiarities of each hospital. For example, daily inspections form an important aspect of ongoing evaluation in the armed forces hospitals, statistical quality control and cost controls are used in paying hospitals, while as professional reviews and medical audit are important features of teaching hospitals. These tools are as follows.

1. Inspections
2. Reports and return (MIS)
3. Statistical quality control (SQC)
4. Professional reviews
5. Social surveys
6. Cost studies
7. Medical audit/comprehensive quality assurance programme.

13.9 Tools of Evaluation

13.9.1 Inspections

Inspections of all hospitals by the administrative medical officers and even consultants provide subjective or judgemental information, and yet they serve as a useful device to locate defects, weaknesses and deficiencies in hospital operation. They also lead to improving the established standards and result in innovations and further development.

A hospital inspection demands from the inspecting officer extensive knowledge and skills. Apart from the in-service experience, common sense, pragmatism and intuition, the inspecting officer can apply all this better if he has acquired formal training in the fundamentals of certain formalised subjects such as hospital planning, biostatistics, work-study, work simplification, organisational behaviour and in general the principles of the modern management, for, the eyes cannot see what the mind does not perceive. Inspections form a very important facet of hospital management in armed forces hospitals which stand out well apart from other hospitals in their appearances, cleanliness, orderliness and quality of care. Such inspections can be spread out over the week, each day of the week being earmarked to a specific area or sphere of activity in the hospital. However, it should also be realised that too routine a pattern of inspections can become boring and monotonous.

In such cases, occasional surprise inspections would offer better feedback.

13.9.2 Reports and Returns (MIS)

Reports and returns from various areas of activity of the hospital are an important control device in that they are useful for assessing whether a situation is getting better or worse. They do so by comparing present performance with that of the recent past, and with that of corresponding period of previous years. Such trend information is a helpful guide to higher medical echelons in deciding what kind of corrective action is needed.

The information that can be generated out of the reports and returns could encompass the statistical indices some of which are mentioned below. These can be taken as starting points or guides, and additional indices developed as per each hospital's requirement.

- Average daily census ward wise, speciality wise
- Average length of stay (ALS)-ward wise or speciality wise
- Bed occupancy rate (BOR)
- Bed turnover rate (BTR)
- Outpatient clinics

- i. Number of new cases
- ii. Number of repeat cases
- iii. Speciality wise break-up
- iv. unit wise break-up of cases

- Left against medical advice rate (LAMA).

Separate reports and returns may be called for which contain hospital utilisation data such as:

- Number of X-ray done—for inpatients and outpatients, department wise and physician wise

- Number of laboratory investigations—their department wise breakdown
- Number of surgical operations, theatre occupancy time
- Number of physiotherapies
- General outpatients' clinic—attendance, old/new cases
- Specialist OPD clinic attendance.

Other items of information can be added to the above list depending on the need of each of hospital. Reports and returns that can be generated by a small peripheral hospital will naturally be different from those of a district hospital, a private hospital or a teaching hospital. For purpose of efficient management, each will have to devise its own information requirement format.

13.9.3 Statistical Quality Control

Much management information comes from statistics. To get them right is an important as merely generating them. Statistics should present data in such a format that the hospital management can have at regular intervals an updated picture of activity in different departments.

Statistical quality control (SQC) is a management technique based on sampling, probability and statistical inference. Simple random sampling, systemic random sampling and stratified random sampling can be utilised.

However, except in research projects simple random sampling would serve the purpose of most administrators. Sampling, if properly carried out is as accurate as the 100 per cent checking of the “universe”.

Whenever a process is carried out under controlled conditions some variations are bound to occur. However, such variations tend to fall in a specific pattern. Deviation from such a pattern is the result of assignable causes during the process. This deviation can be detected before serious damage is done, and the process can be restored to normal conditions with the help of SQC. This is the crux of SQC system. Help of a statistician in such matters would be of considerable help. However, such investigations can also be carried out by a hospital administrator with minimal training in statistical methods.

13.9.4 Professional Reviews

In evaluating the process and outcome, study of the structure of the organisation, i.e. the men-material- money inputs assumes only a secondary role. Professional reviews primarily

evaluate performance of the medical and nursing staff, both on a concurrent and retrospective basis, thus, assuring the quality of medical care. This type of evaluation falls within the exclusive domain of the medical staff.

Professional reviews which may take the form of death review, X-ray review, tissue review and chart review attempt to evaluate the physician's, and indirectly of the clinical supportive services performance. In death review, scrutiny of all fatal case documents can be used to adjudge the professional competence of the medical staff and provide useful feedback for policy planning. X-ray reviews try to ascertain whether screening of radiographic films could be avoided or reduced with more complete medical examination and detailed history taking, and also to find out whether any radiographic examinations were warranted but not carried out. Tissue reviews reveal whether surgery in certain cases was really necessary. Introduction of tissue reviews in many hospitals have brought down the rate of unnecessary hysterectomies and other injudicious surgical interventions. Periodic chart reviews of discharged patients evaluated comprehensively the performance of medical staff in rendering efficient medical care.

13.9.5 Social Surveys

Social surveys disclose social pathology.⁸ During the recent years, social surveys have become a regular feature in public health and can be effectively put to use in the hospital sector. A series of social surveys have been conducted to elicit the extent of patient satisfaction and degree of public image the hospital enjoys among the community. The surveys are conducted through questionnaires given to the patients as well as their attendants and visitors to the hospitals. The answer elicited through them reflect on different aspects of patient care. It is the patients who experience intimately at first hand the "cure" and "care" services, and are therefore able to offer valuable opinion on the adequacy of diagnosis and treatment as seen from their viewpoint.

Other people such as the patients' attendants and visitors come in contact with the highly visible aspects of hospital care like the housekeeping services, hygiene and sanitation, public relations and behavioural attitudes of the hospital staff. It is through the elicitation of opinions of the patients and the community that patient satisfaction, and the "image" of the hospital can be gauged. Needless to add, a hospital worth its name should constantly strive to maintain its image in a positive way.

13.9.6 Cost Studies

At what cost are the hospitals administered? We are mostly unaware of the capital and operating costs in running of hospitals. It is important to know whether these costs are excessive in relation to the health benefit they render. We should also want to know whether similar benefits can be provided at lesser costs

“Costing” means the total cost of running the whole hospital or a department of the hospital. Unit costing means the cost of running one unit of service, e.g. cost per inpatient day, cost per outpatient attendance, cost per radiograph, cost per surgical operation, cost of one laboratory investigation, cost of drugs per inpatient, cost of diet per inpatient day, per capita cost of drugs per annum and so on.

Although there are limitations to cost studies, “costliness” can compare a hospital’s cost performance with a predicted value of what the cost of that hospital should be, given its particular case mix.

Medical staff generally have no clear-cut concept of financial implications of the services at their disposal. When the medical staff and hospital administrators realise the importance of these and other cost norms, it would have a beneficial effect on around cost reduction in hospitals, and the savings thus generated can be ploughed back to improve the quality of care.

13.9.7 Medical Audit/Comprehensive

Quality Assurance Programme To most people the word “audit” is familiar in relation to financial transactions justifying use of financial resources and thereby establishing guides for further financial operations. Hospital services are no exception to such audit, except that this audit directly relates to patients. Viewed as a means of justifying the use of medical care resources and thereby establishing a guide for future medical care operations, it has come to be known as the medical audit.

The audit is based on the study of medical records in retrospect wherein questions regarding what was done for the patient, wrongful commissions and omissions, under or over treatment, justifiability and outcome are raised. Springing from medical audit, comprehensive quality assurance system was a logical next step in the evaluation of the technical content of medical care that can encompass as many clinical disciplines in the hospital as possible and also the supportive services. Since the major output of hospitals is patient care, maintaining

quality is a primary objective, and quality assurance becomes a critical control activity. Essentially a retrospective auditing process, quality assurance incorporates credentialing and the performance assessment of medical and professional staff to ensure that patient care results are consistent with expectations.

Monitoring activities include utilisation review of admissions, lengths of stay and readmissions. Some specific activity evaluations cover such areas as infection control, surgical case review, blood review, laboratory tests review, medical records documentation, and drug use.

13.10 Summary

Evaluation of medical care services in hospitals encompasses the evaluation of the organisation, process, content, end results and impact on users. In most instances, it is neither possible nor desirable to carry out such an exhaustive evaluation at one time except in rare instances. Evaluation in hospitals is complicated by the multidisciplinary nature of activities, diversity of staff, variation in the intensity of care of each patient and the intangible outcomes of medical care, thereby forcing qualitative judgements on the evaluations. What one measures is therefore only certain components and characteristics from which inferences are drawn and corrective actions are taken.

13.11 Key words

Evaluation of the “Methods”-Evaluation of the methods is determining whether there is an effective utilisation of the available human and material resources and whether the hospital’s policies and working procedures are sound and judicious

Evaluation of the “End-results”- Evaluation of the “end-results” means judging the effectiveness or ultimate outcome of the benefits derived by individual patient and the community from the hospital. This is an evaluation of the “outcome” and “impact”.

Evaluation of care - The important needs of the patients that must be satisfied are the craving for understanding of their illness, regard paid to their comfort and dignity, some degree of privacy, rest and sleep, freedom from unnecessary noise, contact with family, suitable pastime, good food, smooth transition to other forms of care or return to home life.

Load of Work- Load of work on a particular hospital (or department within a hospital) affects the quality of care and serves as an index for augmentation of resources and inputs, or otherwise.

Medical Services- Medical services are the sheet anchor of most general hospitals. They are so closely related to all other departments that sharp lines cannot be drawn to delineate specific responsibilities.

Nursing Services- Nursing services implement the physicians' plan of care and provides nursing care for the patients' assessed needs

13.12 Self-Assessment Questions

1. What is evaluation Discuss the tools of Evaluation?
2. Briefly Discuss the Medical and Surgical services
3. Explain in detail about the Physical facilities and Equipment that are used in Hospital?

13.13 Suggested Reading

1. Sakharkar, B.M., & Jaypee Brothers (Jaypee Digital) (2009) Principles of Hospital Administration and Planning, (Jaypee eBooks), Jaypee Brother Medical Publisher Private Limited.
2. Hospital Administration (2017) DC Joshi and Mamata Joshi Jaypee Brothers Medical Publishers (P) Ltd.; 1st edition
3. Hospital and Healthcare Accreditation (As Per the Guidelines of NABH, NABL, JCI) (2018) Brajkishore Rajoriya Six Sigma Star Healthcare (P) Ltd, New Delhi, India; NABH, NABL, JCI.
4. Performance Improvement in Hospitals and Health Systems: Managing Analytics and Quality in Health care (2018) James R. Langabeer II CRC press Taylor and Francis Group Productivity Press Book.
5. Service Quality for Facilities Management in Hospitals (2016) Low Sui Pheng & Zhu Rui (auth) Low Sui Pheng & Zhu Rui (auth.) Springer Publications
6. Introduction to Health care quality Management (2009) Patrice Spath AUPHA press Washing Ton PC.,

LESSON -14

MANAGEMENT TECHNIQUES IN HOSPITAL

Objectives of the Lesson

After studying this lesson, the learner will be able to:

1. **Explain** the concept and scope of hospital administration.
2. **Describe** the roles and responsibilities of hospital administrators.
3. **Analyse** administrative functions in planning and coordination of hospital services.
4. **Distinguish** between administrative, clinical, and support roles in hospitals.
5. **Evaluate** the importance of hospital administration in achieving organisational objectives.

Structure

- 14.0 Introduction
- 14.1 Management Techniques in Hospital
- 14.2 Methods of Management Techniques in Hospital
- 14.3 Summary
- 14.4 Key words
- 14.5 Self-Assessment Questions
- 14.6 Suggested Readings

14.0 Introduction

Effective management is the key to success for any business and the same can be said for the management of hospital systems. Here we explore the top nine management tips to running your hospital successfully.

14.1 Management Techniques in Hospital

1) Training of Hospital Staff

New staff introduced to the hospital must be competent hospital managers. Hospital staff should be encouraged to participate in ongoing training to enhance their skills. Current staff should, therefore, be trained in both management and technology (e.g. cloud image storage), with training also being offered in-house.

2) Use Innovative Technology

Automation of hospital systems can be beneficial to everybody involved. For example, the use of DICOM or cloud image storage can reduce the number of staff required and eventually lead to the more effective management of these areas of the hospital.

3) Accountability is Key

Staff should be accountable for their daily, weekly and monthly tasks. If every hospital staff member adheres to this and is answerable for their assigned tasks, including senior doctors, this produces better hospital management.

4) Establish a Managed Care System

A managed care system should already be implemented in hospitals, but its improvement can lead to the more efficient running of daily tasks. This includes punctuality of physicians, no delays for operations and well-managed stock for in-demand medicines.

5) Develop an Effective Communication Strategy

Communication can be a challenging area for hospitals, however, not addressing a lack of communication can create poor management. Communication channels should be customised according to the needs of the hospital.

6) Identify Vulnerable Areas

It is important to know where your hospital has been failing. It is only by identifying these areas that you can then focus on the areas that are vulnerable and work to strengthen them. The most qualified staff can then be applied to these areas to ensure effective management.

7) Keep Contact Details Updated

The information of hospital staff can change without the hospital knowing. Therefore, it is important to update the staff's contact details as out-dated information can affect the patient and demonstrates inefficient management.

8) Oversee Important Departments

Departments such as the emergency department and admissions may require more attention in your hospital. Good hospital management is making sure that the best people and systems are operating efficiently in these areas.

9) Remain Patient-Centred

Regardless of any innovative actions you plan to initiate in your hospital, the main priority should always be the patient. Communicative staff or the latest technology will not matter if the patient is suffering. Therefore, effective hospital management lies in remaining patient-centred

14.2 Methods of Management Techniques in Hospital

(Qualitative) Those based on organizational behaviour (behavioural sciences)

1. Organizational design
2. Personnel management
3. Communication
4. Information systems
5. Management by objectives

(Quantitative) Health Economics based

1. Cost benefit analysis
2. Cost effective analysis
3. Cost accounting
4. Input – output analysis

(Quantitative) Those based on budgeting and operational research

1. Model
2. System analysis
3. Network analysis- PERT and CPM
4. Planning programming budgeting system
5. Work sampling
6. Decision taking

Following techniques have been included

1. Model
2. Systems Analysis
3. Network Analysis
4. PPBS
5. Work Sampling
6. Decision Making

Model

- A mathematical model of the program or activity is constructed by studying the effects of different inputs on the outcome.
- The model shows the relationship among various inputs and the output which may be the
 - number of lives saved,
 - number of vaccinations given,

- number of patients cured,
- Number of health personnel trained etc.
- This model or equation is constructed using the long term historical data showing the impact of various risk factors and interventions
- These observations are used to construct the mathematical equation
- If we don't have the above observations already, we cannot construct the model
- These are extensive equations, built into a software
- These software can be installed in the computer and the effect of altering one or more of the inputs like
 - increasing the number of trainers to double the present
 - Adding 500 sites for cancer screening across the state etc.
 - The software will predict the increase in the number of lives saved from Ca Cervix for each of the above.

Systems Analysis

- The technique is used mainly for increasing the cost - effectiveness of a
 - program,
 - healthcare institution or
 - any system (e.g. the entire healthcare of the State)
- The basis of the technique is that any system is made up of a number of sub-systems
- If each sub-system is analysed using a number of strategies and
- The most cost-effective strategy is adopted for each sub-system, then
- The whole system automatically becomes optimally cost-effective

Network Analysis

- Is useful in a new Project
- Examples of Public Health Projects
 - A rural health centre decides to create a nutrition counselling clinic for under 5 children
 - A hospital develops a program to reduce cross infection rates by Improving infection control measures in the hospital
 - The health ministry is to launch a maternal and child health program

• Characteristics of a new Project

- Unique purpose
- Temporary (once completed and running regularly, it becomes a clinic, program etc.)

- Requires resources
- Involves uncertainty
- A project requires a large no. of interrelated activities for
- The orderly accomplishment of a large number of tasks of diverse nature becomes necessary.
- **‘Network Analysis’ refers to**
 - breaking down a complex project into its component parts (activities, events, durations etc.) and
 - Plotting them to show their interdependencies and inter-relationships
 - The lines connecting the events are called ‘paths’
 - The basic principle is to show diagrammatically, the logical sequence in which different events between the start and the end of a project need to take place
 - ‘Network model’ consists of a set of points (shown as circles or squares) which are joined by lines
 - The points represent the accomplishment of a task and the connecting line represents the activities necessary for this achievement
 - Any delay across the network can then be detected or anticipated and corrective action can be planned

Two variations of Network Analysis are mostly used in healthcare

1. Program Evaluation and Review Technique (PERT)

- Used mainly for new projects mostly without precedence.
- Without previous experience, the likely time needed for each activity needs to be estimated

2. Critical Path Method (CPM)

Used mainly in projects which have been repeated enough, at different places, hence the likely time required for each activity is already known from previous experience

Purpose is to identify the longest path and apply methods to shorten this path to finish the project at the earliest possible

Project Management and Review Technique (PERT)

- i) Useful mainly for new projects which have no precedence
 - ii) Allows an estimation of the time and resources needed to complete the project
 - iii) These delays can be addressed beforehand by taking appropriate administrative actions
- anticipation

iv) PERT is a scheduling tool, and does not help in finding the best or the shortest way to complete a project

v) An example has already been discussed as the project to eradicate disease x

CPM diagrams

- (1) all activities,
- (2) time required for their completion,
- (3) and how each activity is related to the previous and next activity

The probable time needed for completion of each activity is already known

A sequence of activities is called a 'path,' and the longest-path in the diagram is the critical path.

The critical path determines the total time required for the project

- a) It is 'critical' because all activities on it must be completed in the designated time, otherwise the whole project will be delayed.
- b) If activities outside the critical path speed up or slow down (within limits), the total project time does not change
- c) If the 'critical path' is shortened, the efficiency of the total project can be improved. The resources and personnel needed for this can be withdrawn from non-critical paths and used in the critical path.

Differences between PERT and CPM

Useful mainly for new projects which have no precedence Useful for projects which have precedence PERT is a scheduling tool, and does not help in finding the best or the shortest way to complete a project CPM helps in finding the shortest way to complete the project Time required for each activity can be an estimation only Time required for each step is almost precisely known from previous experience

Main objective is to complete the project in a time bound manner Main objective is to complete the project in the shortest possible time

Similarities between PERT and CPM

1. Both are used for accomplishing new projects
2. Both consists of graphic representation of the events (as squares or circles) and activities

(as lines or arrows)

In other words, both are types of 'Network Analysis'

3. Both help in optimal utilization of time and resources

1. **Planning - Programming Budgeting System (PPBS)**

For achieving a goal:

First planning is done, followed by

- a) Programming and implementation i.e. the plan which was made and approved on paper is now being run.
- b) The budget for all steps of implementation is specified for one year only in the plan.
- c) Once the program is running, the budget for each step and component is reassessed each year
- d) Further allocation of the budget would depend upon the performance and utility of each component of the program.

So, Planning Programming Budgeting for subsequent years

'Zero Budget Approach'

'Zero Budget Approach' is a type of PPBS.

The budget for each component is zero at the beginning of each year unless the amount is justified by the workers and

only that amount which has been satisfactorily justified, will be released

Hence the activities under the program need to be justified on a year – to – year basis

Work Sampling

It is a method of sampling used for estimation of the utilization of

Equipment

Machines

Vehicles

Time by the health personnel

It involves observation of the workers for activities carried out by them during the course of work

The observations should be many and not just a few times

A large no. of observations are required for valid estimates

The day and time chosen for the observations must be random

Each observation should be for a sufficient length of time

Finally these observations are subjected to statistical methods to obtain valid estimates of:

Idle time of machines, equipment etc.

Utilization of time by the health personnel for various activities

Appropriate modifications can then be made for better utilization of the equipment and time

1. Decision Making

- a) Decision making is required when there are more than one ways for achieving the goal
- b) Each option is given a value and the possible consequences of each options are also given values
- c) Probability of each consequence is assessed and the best possible action is decided according to the final score

Preconditions for Decision Making

1. The decision maker should be informed of ALL the possible options
2. Probability of all the consequences after undertaking each option must have been calculated by the analyst. Decision should not be made with incomplete data
3. Decisions must be made at the appropriate level (not necessarily the top level each time)

14.3 Summary

Health care professionals must become effective managers and leaders in order to fulfil their responsibilities to themselves, to their patients, and to the professions. Existing environments, roles, educational programmes are expanding. In the changing environment hospital administrators will be called upon for creative strategies, disciplined and cost-controlled programmes, improving the quality, raising the standards, and the abilities to direct research and analyse systems critically, and chart growth. Contents In this unit focus on increasing organisational effectiveness in service and practice by applying modern technique in hospital management. The educational process attends to the unique individual learner. A satisfied manager has a high probability of having staff members who are also satisfied;

satisfied staff members have a high probability of having satisfied patients; a satisfied patient has a high probability of reaching full health potential.

14.4 Key words

Network Analysis- It refers to breaking down a complex project into its component parts (activities, events, durations etc.) and Plotting them to show their interdependencies and inter-relationships

Critical Path Method- Used mainly in projects which have been repeated enough, at different places, hence the likely time required for each activity is already known from previous experience

Project Management and Review Technique (PERT)

- i) Useful mainly for new projects which have no precedence
- ii) Allows an estimation of the time and resources needed to complete the project
- iii) These delays can be addressed beforehand by taking appropriate administrative actions
anticipation

14.5 Self-Assessment Questions

1. Briefly Discuss the Management Techniques in Hospital
2. Describe the Methods of Management Techniques in Hospital
3. Outline the Difference between the CPM and PERT

14.6 Suggested Reading

1. Sakharkar, B.M., & Jaypee Brothers (Jaypee Digital) (2009) Principles of Hospital Administration and Planning, (Jaypee eBooks), Jaypee Brother Medical Publisher Private Limited.
2. Hospital Administration (2017) DC Joshi and Mamata Joshi Jaypee Brothers Medical Publishers (P) Ltd.; 1st edition
3. Hospital and Healthcare Accreditation (As Per the Guidelines of NABH, NABL, JCI) (2018) Brajkishore Rajoriya Six Sigma Star Healthcare (P) Ltd, New Delhi, India; NABH, NABL, JCI.
4. Performance Improvement in Hospitals and Health Systems: Managing Analytics and Quality in Health care (2018) James R. Langabeer II CRC press Taylor and Francis Group Productivity Press Book.

5. Service Quality for Facilities Management in Hospitals (2016) Low Sui Pheng & Zhu Rui (auth) Low Sui Pheng & Zhu Rui (auth.)Springer Publications
6. Introduction to Health care quality Management (2009) Patrice Spath AUPHA press Washing Ton PC.,

References and Suggested Readings

A. Text Books

1. Sakharkar, B.M., *Principles of Hospital Administration and Planning*, Jaypee Brothers Medical Publishers, New Delhi, 2009.
2. Francis, C.M. & De Souza, M.C., *Hospital Administration*, Jaypee Brothers Medical Publishers, New Delhi, 2015.
3. Joshi, D.C. & Joshi, M., *Hospital Administration*, Jaypee Brothers Medical Publishers, New Delhi, 2009.
4. Srinivasan, S., *Management Process in Health Care*, Voluntary Health Association of India, New Delhi, 1982.
5. Gupta, M.C. & Mahajan, B.K., *Textbook of Preventive and Social Medicine*, Jaypee Brothers Medical Publishers, New Delhi, 2003.

B. Other Reference Materials

- World Health Organization, *Hospitals and Health Systems*, WHO Publications.
- Government of India, *Indian Public Health Standards (IPHS)*, Ministry of Health & Family Welfare.

Improved Self-Assessment Questions

A. Short-Answer Questions (with Answers)

1. **What is hospital administration?**
Hospital administration refers to the management and coordination of hospital resources and services.
2. **Who is a hospital administrator?**
A professional responsible for planning, organising, and supervising hospital operations.
3. **Mention two functions of hospital administration.**
Planning and coordination.
4. **What is administrative control?**
Monitoring activities to ensure achievement of objectives.
5. **Why is coordination important in hospital administration?**
To ensure smooth functioning of diverse departments.

Case Study for Self-Assessment**Administrative Control and Efficiency in a District Hospital****Background**

A district hospital providing secondary care services faced repeated complaints regarding admission delays and record mismanagement.

Situation Analysis

An internal review revealed weak administrative supervision, lack of monitoring, and unclear role allocation.

Integration of Lesson Concepts

- Administrative planning
- Organising and coordination
- Supervision and control
- Administrative leadership

Analytical Questions

1. Identify the administrative functions involved in this case.
2. How did weak administration affect service delivery?
3. Explain the administrator's role in improving efficiency.
4. Suggest administrative measures to improve hospital performance.

Model Answers (Indicative)

1. Planning, organising, supervision, and control.
2. Inefficiencies caused delays and dissatisfaction.
3. Through coordination, monitoring, and leadership.
4. Standard procedures, supervision, and accountability.

LESSON -15**RECENT ADVANCES IN HOSPITAL MANAGEMENT****Objectives of the Lesson**

After studying this lesson, the learner will be able to:

1. **Explain** the overall role of hospital administrators in healthcare organisations.
2. **Describe** the key administrative, managerial, and coordinating roles performed by hospital administrators.
3. **Analyse** the leadership and decision-making responsibilities of hospital administrators.
4. **Distinguish** between strategic, operational, and supervisory roles of hospital administrators.
5. **Evaluate** the contribution of hospital administrators to efficiency, quality, and patient satisfaction.

Structure

15.0 Historical Perspective of Telemedicine

15.1 Modern Techniques

15.2 Tele Medicine in India

15.2.1 Critical Issues in Use of Tele Medicine

15.2.2 Salient Features of Telemedicine Practice Guidelines

15.3 Telemedicine During Covid- Pandemic

15.3.1 Benefits of Telemedicine in Covid-19 Pandemic

15.4 Health Insurance

15.4.1 Private Health Insurance

15.4.2 Community Based Health Insurance

15.4.3 Social Health Insurance

15.4.4 Tax Based System

15.4.5 Impact of Health Insurance on structure & quality of Private Provision

15.5 Ayushman Bharat

15.5.1 Statistics

15.5.2 Rationale

15.5.3 Goals

15.5.4 Benefits

15.5.6 Beneficiaries

15.5.6 Implementation of AB-PMJAY

15.6 Medical Tourism

15.6.1 Domestic Medical Tourism

15.6.2 International Medical Tourism

15.6.3 History of Medical Tourism

15.6.4 Global Top Destination of Medical Tourism

15.6.5 Top Specialties of Medical Traveller

15.6.6 Risk Exposure of Medical Tourist

15.6.7 SWOT Analysis of Medical Tourism in India

- 15.7 Contracting Health care
 - 15.7.1 Privat Public Partnership
 - 15.7.2 Key areas
 - 15.7.3 Tenets of Successful PPP
 - 15.7.4 Role of Government
- 15.8 Outsourcing
 - 15.8.1 Emerging Areas that can be Outsourcing
 - 15.8.2 Outsourcing Decision-Making Factor
 - 15.8.3 Impact of Outsourcing
 - 15.8.4 Benefit of Outsourcing
 - 15.8.5 Difficulties in Implementation
 - 15.8.6 Managerial Implementation
- 15.9 Digital Hospital
 - 15.9.1 Features of Digital Hospital
 - 15.9.2 Electronic Health Record
 - 15.9.3 History of Electronic Health Record
- 15.10 Summary
- 15.11 Key words
- 15.12 Self-Assessment Questions
- 15.13 Suggested Readings

15.0 Historical Perspective of Tele Medicine

According to the American Telemedicine Association, “Telemedicine is the natural evolution of health care in the digital world.” Earliest published record of telemedicine is in the first half of the 20th century when ECG was transmitted over telephone lines. In 1959, the doctors at University of Nebraska were the first to record real-time (live) video consultation using interactive telemedicine for neurological examinations. Thereafter, telemedicine came to rescue in disaster management during the 1985 Mexico City earthquake when NASA first used telemedicine services, and in 1988, during the Soviet Armenia earthquake, where the estimated casualties were more than 50,000.

In the same vein, the establishment of a commercial space center named Medical Informatics and Technology Applications Consortium at Yale University in the year 1997 by NASA turned out to be an important milestone in private participation in public health management using telemedicine.

15.1 Modern telemedicine

Over the past several decades, the use of wireless broadband technology has become more advanced and cell phone and internet use has become nearly ubiquitous. The people, regardless of their education status, manage to self-learn this form of communication and bring it to use in their day to day lives.

Introductory Case Study

Role of Hospital Administrator in Coordinating Services in a Corporate Hospital

Background of the Organisation / Sector

Corporate hospitals in India operate in a competitive environment, offering specialised clinical services, advanced technology, and patient-centric care. The hospital administrator plays a central role in coordinating clinical, nursing, and support services to ensure smooth operations.

Contextual Trigger / Problem

A corporate hospital faced frequent patient complaints regarding admission delays and billing issues. Clinical services were efficient, but administrative coordination was weak.

Stakeholders Involved

- Hospital administrator
- Medical superintendent
- Nursing managers
- Finance and billing staff
- Patients and attendants

Managerial / Behavioural Issues

- Poor coordination between clinical and administrative units
- Delays in decision-making
- Communication gaps
- Inadequate supervision of non-clinical services

Relevance and Importance to the Lesson

This case demonstrates how the **role of the hospital administrator** directly affects service efficiency and patient experience.

Explicit Linkage to Lesson Concepts

- Administrative and coordinating roles
- Leadership and decision-making
- Accountability of hospital administrators

Further advancements in technology resulting in transfer of images facilitate sharing of medical data such as X-rays and scans and real-time audio and video consultations. Improvement in internet infrastructure such as bandwidth communication speeds, information storage databases, web service backups, standard formats for data transmission, encryption, password protection,

Health Insurance Portability and Accountability Act of 1996 guidelines, digitalizing information, and establishment of electronic medical records made e-health and telemedicine stress-free and cost-effective.

15.2 Telemedicine in India

Telemedicine practices in India have slowly and steadily gained foothold. The steps taken by ISRO, Department of Information Technology (DIT), Ministry of External Affairs, Ministry of Health and Family Welfare, and the state governments played a vital role in the development of telemedicine services in India. ISRO (Indian Space Research Organization) was the pioneer of telemedicine in India with a Telemedicine Pilot Project in 2001, linking Chennai's Apollo Hospital with the Apollo Rural Hospital at Aragonda village in the Chittoor district of Andhra Pradesh.

To further the cause, in the recent years, the Ministry of Health in the Government of India has taken up projects like Integrated Disease Surveillance Project, National Cancer Network (ONCONET), National Rural Telemedicine Network, National Medical College Network, and the Digital Medical Library Network. Setting up of standardized telemedicine practice guidelines by the DIT in the Government of India and setting up of a National Telemedicine Task Force by the Health Ministry, in 2005, were some of the other positive steps by the government. International projects such as the Pan-African eNetwork Project and the SAARC (South Asian Association for Regional Co-operation) Telemedicine Network Projects have also been taken up as an initiative of the External Affairs Ministry, strategically placing Indian telemedicine in the global scenario.

A few noteworthy examples of the successfully established telemedicine services in India include Sher-i-Kashmir Institute of medical sciences, mammography services at Sri Ganga Ram Hospital, Delhi; oncology at Regional Cancer Center, Trivandrum; surgical services at Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, and many more. Telemedicine has also helped in shouldering the challenge of health care during massive Indian gatherings, for example, the Government of Uttar Pradesh practices telemedicine during

Maha Kumbhamelas through Mobile Telemedicine system vans equipped with videoconferencing systems for visual communication enabling doctors in remote places connect to any of the telemedicine-enabled medical hospital and super specialty hospital for expert opinion.

Private sector also showed keen interest in the field. Some of the major Indian private sector players in telemedicine include Narayana Hrudayalaya, Apollo Telemedicine Enterprises, Asia Heart Foundation, Escorts Heart Institute, Amrita Institute of Medical Sciences, and Aravind Eye Care. They function with support from the central and state governments and from organizations such as ISRO who guide them with appropriate and updated technology.

In the past few years, ISRO's telemedicine network has come a long way. It has expanded to connect 45 remote and rural hospitals and 15 super specialty hospitals. The remote nodes include the islands of Andaman and Nicobar and Lakshadweep, the hilly regions of Jammu and Kashmir, Medical College hospitals in Orissa, and some of the rural/district hospitals in other states.

15.2.1 Critical Issues in Use of Telemedicine

In spite of all these success stories, there are certain critical issues in use of telemedicine as an effective tool in health-care delivery:

1. Telemedicine is plagued by a question of liability when information provided through telemedicine is misinterpreted.
2. Maintaining the privacy and confidentiality of telemedicine services is crucial to acceptance by consumers and health-care professionals; these providers must adhere to all data privacy and confidentiality guidelines
3. Protection of information and computer systems is of top priority. Training of technical support staff in information security during the exchange of client information is an important component in fostering proper system use.
4. There is a need to develop process for reimbursement of the services provided through telemedicine by the health-care providers.
5. The technical requirements for a successful telemedicine program include secure, high-speed internet connection, a clinical telemedicine cart to serve as the hub for the interaction, patient access software, and access to IT professionals to set up the program and to be available when the system malfunctions.

6. Specific competencies that must be addressed to run the telemedicine program successfully include training time to develop the technical skills needed to set up and use equipment, professional knowledge, interpersonal skills, documentation, professional development, resource management, practice and administrative issues, and security of health-care information.
7. Telemedicine visits can require extra time for equipment management and transmittal of prescriptions.

15.2.2 Salient Features of “Telemedicine Practice Guidelines” Proposed by Medical Council of India (2020)

These guidelines are meant for a Registered Medical Practitioner (RMP) who is enrolled in the State Medical Register or the Indian Medical Register under the Indian Medical Council Act 1956. The guidelines cover norms and standards of the RMP to consult patients via telemedicine.

Important exclusions

1. Digital technology should not be used to conduct surgical or invasive procedures.
2. There is no provision for consultations outside the jurisdiction of India.

Training for telemedicine practice

1. To enable the RMPs to get familiar with these guidelines as well as with the process and limitations of telemedicine practice:
2. An online program will be developed and made available by the board of Governors in supersession of MCI
3. All currently registered medical practitioners need to complete a mandatory online course within 3 years of notification of these guidelines to provide consultation via telemedicine
4. Thereafter, undergoing and qualifying such a course, as prescribed, will be essential prior to registration of a medical practitioner.

Telemedicine applications

- i. Tools for telemedicine can range from telephone, video, devices connected over LAN, WAN, Internet, mobile or landline phones, Chat, WhatsApp, Facebook Messenger, Mobile App, Skype/email/fax, etc.
- ii. Telemedicine applications can be classified into four basic types, according.
- iii. Mode of communication,
- iv. Timing of the information transmitted,

- v. Purpose of the consultation
- vi. Interaction between the individuals involved: RMP-to-patient/caregiver or RMP to RMP.

Elements for telemedicine in India

A Telemedicine consultation should consider these seven elements.

1. Context: Telemedicine should be appropriate and adequate as per context.
2. Identification of RMP and patient: The name, E-mail ids, and address should be known to each other for the sake of transparency.
3. Mode of Communication: The strength and weakness of audio, video, text, etc., should be weighed as per context.
4. Consent: Consent can be 'Implied' in case of mentally sound adult who initiates consultation. It can be 'Explicit' when the consultation is initiated by a health worker, RMP, or a caregiver. For an explicit content, patient can send an E-mail, text, or audio/video message stating his/her intent to the RMP. The RMP must record this in his patient records.

5. Type of consultation:

First consult: When the patient is consulting the RMP

- (i) for the first time for the current health condition or
- (ii) has consulted more than 6 months ago for the same health condition, or
- (iii) the patient has consulted with the RMP earlier, but for a different health condition

Follow up consult

When the patient consults the same RMP within 6 months of previous in-person consultation and is for the same health condition. However, it will not be regarded as follow-up in the presence of new symptoms that are not in the spectrum of the same health condition or the failure of the RMP to recall the context of previous treatment and advice.

Patient evaluation: Proper care must be taken by RMPs to collect all medical information about patient's condition before making any professional judgment.

Patient management: If the condition is manageable via telemedicine, a professional judgment to provide health education and counseling and to prescribe medicines through a properly signed e-prescription can be given by the RMP.

Specific restrictions

Medicines that can be prescribed via teleconsultation will be as per the notification in consultation with the Central Government from time to time.

The categories of medicines that can be prescribed are:

- a. List O: Safe to be prescribed through any mode of teleconsultation. They would comprise of 'over the counter' medicines.
- b. List A: Relatively safe medications which can be prescribed during the first consult and are being prescribed for refill, in case of follow-up.
- c. List B: Medication which RMP can prescribe to a patient who is undergoing follow-up consultation in addition to those which have been prescribed during the previous in-person consult for the same medical condition.
- d. Prohibited list: These medicines have a high potential of abuse. These include medicines listed in Schedule X of Drug and Cosmetic Act and Rules or any Narcotic and Psychotropic substance listed in the Narcotic Drugs and Psychotropic Substance.

Fee

The Fee for telemedicine consultation can be levied, and a receipt/invoice may be given to the patient.

15.3 Telemedicine during COVID Pandemic

In today's times, when the world is facing the biggest ever pandemic of Covid-19, the affliction of which is highly contagious and exponentially increasing numbers of cases worldwide poses unprecedented challenge to even the world's best health-care systems.

The World Health Organization recommends a doctor–population ratio of 1:1000 in India, while the current doctor population ratio is only 0.62:1000. This poor doctor–population ratio becomes even more daunting in the wake of COVID-19 outbreak.

In India, till now, there was no legislation or guidelines on the practice of telemedicine and the gaps in legislation and the uncertainty of rules posed a risk for both the doctors and their patients. However, in view of COVID-19 outbreak, the topic of telemedicine has suddenly taken a front seat.

15.3.1 Benefits of Telemedicine in COVID-19 Pandemic

The telemedicine practices deliver clinical information and permit consultation and discussion between health-care professionals and patients regardless of where the patient is located, reduce travel expenses, save time, reduce medical costs, and provide easier access for the common man to specialist doctors without disrupting their daily responsibilities. Telemedicine also allows likelihood of better maintenance of records and documentation.

In the wake of the ongoing pandemic, telemedicine proves to be an added boon providing the following added benefits to the health-care provider as well as the patients:

Telemedicine can be used for ongoing management of chronic diseases such as bronchial asthma, hypertension, and diabetes mellitus, particularly during a time when social distancing is encouraged.

Individuals with these conditions are particularly susceptible to COVID-19, and medication compliance and disease optimization are important ways to mitigate severity. Telemedicine can serve as a safe and effective alternative to in-person care.

1. A 2015 Cochrane systematic review examined the impact of telehealth involving remote monitoring or videoconferencing compared with in-person or telephone visits for chronic conditions including diabetes and congestive heart failure and found similar health outcomes in both.
2. Telemedicine can also be used for providing psychological support to patients and their family members without getting exposed to the infection.
3. During COVID-19 pandemic, telemedicine can also help in reducing the burden on the tertiary hospitals by providing diagnosis and treatment to patients in their own geographical location and reducing chances of patient's exposure due to hospital visits.
4. Telemedicine can also help in providing training to the care providers of sick and disabled children and elderly.

15.4 Health Insurance

Most countries around the world are committed to developing an effective health insurance system for the purpose of achieving universal coverage. Yet, there is an on-going debate on the relative advantages of different forms of health insurance. The purposes of health financing are to mobilize resources for the health system, to set the right financial incentives for providers, and to ensure that all individuals have access to effective health care.

15.4.1 Private Health Insurance (PHI)

Private health insurance (PHI) is becoming more prevalent in both developed and developing countries, yet it plays a limited role increasing access to health care in developing countries. Out of the 154 developing countries, only 11 fund more than 10 percent of their health care through PHI.

Some commentators have observed that while PHI can increase financial protection and access to quality health services to the well-off, without subsidies however, the poor cannot afford to pay PHI premiums. PHI does not support risk sharing, it rather employs the cream-skimming strategy – a practice where insurance policies are designed to target people with lower-than-average risks and exclude those with high risks. This practice deprives vulnerable groups including women, the elderly and people living with HIV access to care

Given this lack of equity and efficiency, PHI systems alone do not seem to have a solution to the health problems facing developing countries. Whereas PHI models have run alongside complement tax-based or SHI complementarily in developed countries, on its own, however, it is not an appropriate financing option to achieve UHC in developing countries whose population are mostly poor, sick and cannot afford risk-related premiums.

15.4.2 Community Based Health Insurance (CBHI)

Community-based health insurance is the most common form of health care financing in many developing. It comes as a result of governments' inability to reach the informal sector and rural populations, requiring communities to mobilize and secure financial protection against the cost of illness for groups of individuals and households not covered by existing insurance schemes. A variety of community-based health financing arrangements have emerged over the past decade, including micro insurance, community health funds, mutual health organizations, rural health insurance, revolving drugs funds, and community involvement in user-fee management. Regardless of the arrangement, a common feature is that they facilitate explicit or implicit involvement of community members in the design and implementation process that limits abuse and fraud and contributes to trust and confidence in the scheme.

Research has given evidence that community financing arrangements provide financial protection by reducing out of pocket (OOP) spending and by increasing access to health services; improved access to drugs, primary care, including more advanced hospital care. However, the very low and shrinking population coverage rates cast doubts over the validity of this finding. Most often, low premiums are charged and yet the cost of collecting premiums can be high. As such, these schemes are unable to generate the required amount of revenue to provide subsidy for the poor.

The CBHI do not have large risk pools. New evidence suggests that out of 258 schemes reviewed; only 2% had more than 100,000 members, more than half of them had less than 500 members. With limited revenue at their disposal CBHI schemes tend to cover a limited number of services, severely limiting the financial protection offered.

15.4.3 Social Health Insurance (SHI)

SHI schemes are often financed through mandatory earnings-related contributions levied on formal sector workers. Though people with higher contributions are not entitled to more health care, non-contributors may have different entitlements to contributors. In some cases, too people contributing to different schemes may have different entitlements from one another.

Unlike private health insurance schemes, social health insurance contributions are usually based on ability to pay and are not risk-related, and access to services is based on need. In a typical SHI scheme, entitlements to services are usually universal and not differentiated, and contribution rates are set at a level intended to ensure that these entitlements are affordable to members. Through SHI, high-income countries such as Germany, Luxembourg, Belgium, and France have achieved formal UHC. In developing countries however, SHI schemes are found to exclude populations in the informal sector and the larger the informal sector the larger the coverage gap.

In the absence of reliable income records premiums are charged at a flat rate; mostly unaffordable to the poor. And, even though exemptions exist for vulnerable groups like the elderly, children, indigent, the disabled and pregnant women, errors of exclusion and inclusion still occur, culminating in low enrolment.

In developing countries, SHI revenue can at best offer supplementary revenues for pluralistic financing of health system. The ILO observes that the success of SHI schemes is dependent on the generation of stable revenues, strong backing of the beneficiary population, provision of a broad package of services, participation of the social partners and redistribution between risk and income groups.

15.4.4 Tax-Based Systems (TBS)

Tax-based systems, sometimes referred to as national health services pay for health services out of general government revenue such as direct or indirect tax from various levels, including national and local tax.

These taxes are often used for various forms of health insurance funding. Aside from financing national health services, vouchers or conditional cash benefits, taxes are used as subsidies for mixed health insurance programmes such as national health insurances, whereby government revenues are used to subsidize the poor. In addition, taxes may be used as subsidies

for social health insurance, community-based mutual health and private health insurance schemes. Subsidies from government revenue might cover costs for the poor, deficits, specific services, and start-up or investment costs.

15.4.5 Impact of Health insurance on structure and quality of private provision

The experiences in liberalizing the private health insurance suggest that it has undesirable effects on the costs of health care. The costs of care generally go up. Given the present system of fee for service and current scenario of health infrastructure in private sector, the development of insurance will need improvements in quality and change in structure. The new investments to improve quality will result into high cost and therefore increase in prices of insurance products. There would be developments in the direction of exploring options of managed care, which would help in reducing the costs. The developments would be needed in the direction of strong information base and accreditation system for providers. The structure of the health sector will have to change from multiple-single doctor hospitals and clinics to larger hospitals and polyclinics, which provide services of multiple specialties and can operate at larger scale. This will allow them to provide high quality professional care at competitive prices. As one of the responses to these issues Third Party Administrators (TPA) are rapidly emerging in India. Here we can learn from the models, which have emerged elsewhere. But their applicability to Indian situation needs to be examined carefully. These aspects of the health sector will need detailed study.

The insurance mechanism prevalent in many developed countries has their history. Health reforms experiences in many countries are replete with the suggestion that the systems cannot be replicated easily. Self-regulation is an important in any market driven system. The regulation from outside does not work. Implementation of regulation in this sector is difficult. We significantly lack mechanisms and institutions, which would ensure self-regulation and continuing education of provides and various stakeholders. The accreditation systems are hard to implement without mechanisms to self-regulate. For example it took 35 years in US to put the accreditation system effectively in place. For example, it has been difficult for many States in India to put nursing homes legislation in place. Given the deterioration on standards in medical education, lack of regulation by medical council and rising expectations of the community it is difficulty to ensure quality standards in Indian health care system. Given this situation health insurance systems will have to deal with this complex issue of quality of care in years to come.

15.5 Ayushman Bharat

India is one of the developing countries in the world having 1.3 billion populations, of which 70% and 30% population lives in rural and urban area respectively. Currently, India in a state of epidemiological health transition i.e. India is facing dual health problem of communicable diseases as well as non-communicable diseases which remain a threat to health and economic security. This health transition is due to change in demography of population, global warming (globalization and urbanization), changes social and economic determinants of health. In India, many people are dying because of lack of access and poor quality of medical treatment. In this developing country, day by day the expenses on healthcare are increasing especially in people living in rural areas and in smaller urban towns and the annual health-related expenditures ranged from a few hundred rupees to a maximum of 10 lakh rupees. Also, in these areas the individual is travelling long distances to access and avail the comprehensive health care services.

15.5.1 Statistics

In India, the average annual total medical expenditure is about Rs.9,373.00 according to India Consumer Economy 360 Survey. Average annual expenditure on health is Rs 13,198 by household in towns (<1 million populations) while Rs. 11,387 medical expenditures for a Metros household and Rs. 6,371 for an underdeveloped rural household. It is seen that due to financial constraints, the 30% of the rural population did not avail any medical treatment and in most of hospital admission in rural or urban area, the people are paid by either by taking loans or sale by their assets. The India, the health profile report released by WHO in 2014 shows that because of high Out of Pocket (OOP) expenditure, the annually 3.2% Indians falling below the poverty line and also the report pointed out that three fourth Indians spending their entire income on health care and purchasing drugs.

15.5.2 Rationale

Insurance Regulatory and Development Authority (IRDA) said that in the year 2017, 76% of the population do not have any health insurance that put financial burden to family that results in high rate of out of pocket (OOP) expenditure on health. On the basis of above facts, the government of India announced a Ayushman Bharat Yojana- National Health Protection Scheme (AB-NHPM) in the year 2018 was rolled out across all states/UTs in all districts of the country.

15.5.3 Goal

The aim of this programme is to providing a service to create a healthy, capable and content new India and it has two goals:

1. To creating a network of health and wellness infrastructure across the nation to deliver comprehensive primary healthcare services;
2. To provide health insurance cover to at least 40% of India's population which is deprived of secondary and tertiary care services. Under this scheme all types of medical treatments will be provided except organ transplantation for those eligible families.

15.5.4 Benefit

The benefit cover will also include pre and post-hospitalization expenses and there will be no restriction on the size and age of the covered beneficiary family. The payment for medical treatment will be done on package rate (to be defined by the Government in advance) basis. The package rates will include all costs associated with treatment and transactions of money to the beneficiary will be paperless and cashless. The beneficiaries can avail benefits in both public and empaneled private hospitals. The estimated cost for the scheme is about Rs.250 billion over 2018-19 and 2019-20 years for both centre and states. One of the core principles of AB-NHPM is to co-operative federalism and flexibility to states.

15.5.5 Beneficiaries

This scheme will cover poor below poverty line (BPL) families, deprived rural families and identified occupational category for urban families as per 2011 Socio-Economic Caste Census (SECC) data. This scheme will be covering over 10 crore families (approx. 50 crore citizens) across the country with a health insurance coverage upto 5 lakh rupees per family per year for secondary and tertiary care hospitalization.

The inclusion criteria are: families with only one room with kucha walls and kucha roof, households without shelter, destitute, living on alms, manual scavenger families, primitive tribal groups, legally released bonded labour, families with no able-bodied adult member; SC/ST households, families with no adult member between the ages of 16 and 59, to female-headed households with no adult male member between the ages of 16 and 59. For urban areas, 11 defined occupational categories are recognized.

15.5.6 Implementation of AB-PMJAY

AB-NHPM is being implemented through on-going centrally sponsored health insurance schemes like Rashtriya Swasthya Bima Yojana (RSBY) and the Senior Citizen Health Insurance Scheme (SCHIS). This insurance scheme would provide strength to the poor and deprived classes in the society which could not afford secondary and tertiary care. Beauty of the scheme is that the beneficiaries can avail of services anywhere in India i.e. a eligible card holder family from Haryana can get surgery done even in Tamil Nadu. Ayushman Bharat scheme will lead to timely treatments, improvements in health outcomes, patient satisfaction,

improvement in productivity and efficiency, job creation thus, leading to an improvement in the quality of life.

This Yojana is implemented through Health and Wellness Centres that are to be developed in the primary health centre or sub-centre in the village and that will provide preventive, promotive, and curative care for non-communicable diseases, dental, mental, geriatric care, palliative care, etc. These centres would be equipped with basic medical tests for hypertension, diabetic and cancer and they are connected to the district hospital for advanced tele-medical consultations. The government has aims to set up 1,50, 000 health and wellness centres across the country by the year 2022.

The strategies to implement the AB-NHPM are:

1. At the national level to manage, an AB- NHPM is in place. States/ UTs implement the scheme by a dedicated entity called State Health Agency (SHA). They can either use an existing Trust/ Society/ Not for Profit Company/ State Nodal Agency (SNA) or set up a new entity to implement the scheme.
2. To ensure that the funds reach SHA on time, the transfer of funds from Central Government through AB-NHPM to SHA may be done through an escrow account directly.
3. States/ UTs can decide to implement the scheme through an insurance company or directly through the Trust/ Society or use an integrated model.
4. State Governments are allowed to expand scheme both horizontally and vertically. They are also free to choose modalities of its implementation. They can implement through insurance company or directly through Trust/ Society or a mixed model.

Impact

This scheme will have major impact on reduction of OOP on ground of:

1. Increased benefit cover to nearly 40% of the population, (the poorest & the vulnerable)
2. Covering almost all secondary and many tertiary hospitalizations.
3. Coverage of 5 lakh for each family, (no restriction of family size or age)

15.6 Medical tourism

Medical tourism is the process of traveling to a distant location to obtain general medical, dental, or cosmetic surgery at a higher value (quality divided by cost) than is commonly available in one's own local system.

Types

Medical tourism can be sub-divided into domestic and international.

15.6.1 Domestic medical tourism refers to patients traveling within their own country to receive care at a 'center of excellence' (COE) – e.g., institutions with large patient volumes and documented quality outcomes (e.g., University of Pittsburgh Medical Center for transplantation), or those that enjoy this status via common public recognition (e.g., Mayo Clinic, Cleveland Clinic).

15.6.2 International medical tourism refers to traveling outside of one's country (sometimes to an international COE) to obtain care at significantly reduced cost or (for those traveling to more modern countries) increased quality.

15.6.3 History of Medical Tourism

Medical tourism dates back thousands of years to when Greek pilgrims traveled from all over the Mediterranean to the small territory in the Saronic Gulf called Epidaurus. Epidaurus became the original travel destination for medical tourism.

Spa towns and sanitarium were the form of early medical tourism. People traveled to these destinations for medical benefits. From the 18th century wealthy Europeans travelled to spas from Germany to the Nile. Early the 16th century, Europe became a destination for medical tourism, due to roman baths or spa.

In the 1900, USA and Europe became medical centers of major interest, but only for rich persons who had the possibility to travel in order to take care of their health. In the 80's – 90's travels for aesthetic surgical procedures and dentistry appeared. These tourists were attracted by medical tourism especially due to low costs, taking into consideration that in their countries these services were not covered by insurance policies.

Why do patients go abroad?

1. **Affordable** is probably the major reason and this is particularly true for patients from the well-off, developed countries like America and UK, where private health care is expensive, and some surgeries are not covered by their insurance.
2. **Available** is often because the medical treatment they need is not available in their local areas or not trusted by the patients, as is often the case with Omani patients.
3. **Accessible** applies more particularly to patients from countries where the waiting list is long, particularly to national health service patients in the UK and in Canada.
4. **Acceptable** applies to services, which may be affordable, available, and accessible, but they are not acceptable in the patient's own country for religious, political reasons or other social reasons.

5. **Additional** refers to the availability of better care, perhaps better technology, or a better specialist, or simply better service and personalized care abroad compared to care in the home country.

6. **Cost savings** Using US costs across a variety of specialties and procedures as a benchmark, average range of savings for the most-traveled destinations:

India: 65-90%

Thailand: 50-75%

Mexico: 40-65%

Singapore: 25-40%

South Korea: 30-45%

15.6.4 Global top destinations for medical tourism

1. India
2. Thailand
3. Mexico
4. Israel
5. Malaysia
6. Singapore
7. South Korea

15.6.5 Top Specialties for Medical Travelers

1. Cosmetic surgery
2. Dentistry (general, restorative, cosmetic)
3. Cardiovascular (angioplasty, CABG, transplants)
4. Orthopedics (joint and spine; sports medicine)
5. Cancer (often high-acuity or last resort)
6. Reproductive (fertility, IVF, women's health)
7. Weight loss (LAP-BAND, gastric bypass)
8. Scans, tests, health screenings and second opinions.

15.6.6 Risk Exposure to Medical Tourists

Three broad categories have been identified:

1. Risk of travel
2. Risk post-operative procedure
3. Risk that might affect the health of patients during the procedure.

Risks of travel:

1. Psychologically and emotionally, being away from the closest people such as family, spouse, and parents may lead to acquired stress to medical tourist. Such health risk related to travel is due to the mental burden and particularly during the healing period abroad.
2. Infectious Diseases like COVID 19 which spread across borders.
3. More susceptible to deep vein thrombosis.
4. Furthermore, there might be a possibility of pulmonary embolism.

Risks-during the procedure

1. Quality of care
2. Infection and cross-border spread of antimicrobial resistance and dangerous pathogens

Risks -post operative

1. Follow-up care: Many medical procedures require follow-up care after surgery. However, patients who have traveled abroad for medical procedures may have problems finding US physicians who are willing to provide follow up care after their return.
2. Malpractice and liability: In addition to quality of care and follow-up care, many patients are concerned about malpractice.

India as top destination

1. Low Cost
2. Availability Of Medical Experts
3. Availability Of Advanced Equipment's
4. No Waiting Time
5. Specialty Treatment

15.6.7SWOT Analysis of Medical Tourism in India**Strengths:**

1. Indian doctors are recognized as amongst the best at international levels; skillful, qualified, share information with patients and are readily available, whenever required.
2. High quality treatment in low cost.
3. Medical technology, equipment, facilities and infrastructure are at par with international standards.

4. Doctors and staff are good at English which makes it comfortable for tourists from English speaking countries.
5. Because of absence of racial discrimination, customers, especially from Africa, are comfortable in India
6. Education system provides 30,000 doctors and nurses each year which support the growing medical sector in India.
7. Foreigners are also attracted to Indian Systems of Medicine like Ayurveda, Yoga.

Weakness:

1. Though the Cost of treatment is less in India, other costs like accommodation may prove to be inhibitive, especially for customers from low-income economies.
2. Maximum medical tourist is from non-English speaking parts of the world which highlights the need for training of linguists for example specialists of Arabic.
3. Accreditation

Opportunities:

1. Cost of medical treatment in developed western world remaining high, provides Indian medical tourism sector with a unique opportunity.
2. Patients from third world countries, where comparable quality medical care is not available, seek treatment outside their home countries. They compare western service providers with Indian service providers and find Indian medical care cost effective.
3. Employers in US are looking for ways to decrease their employees' medical expenses providing appropriate health coverage concurrently. Employers will look for low-cost care in India and other Asian countries.
4. Insurance companies in western countries are offering full cover and care in home country at a higher premium payment. Insurance companies are offering packages where customers can choose a lower premium but will have to get them treated at hospitals with comparable quality outside the country, with which they have tie-ups. Indian accredited hospitals can choose to compete for a share of this segment.
5. The medical care facilities in other South Asian countries are also not up to the mark. Patients from these countries find good quality care in neighbourhood, where travel time as well as the cultural divide is less.

Threats:

1. Cost to the local population-non-availability of services.
2. High competition from other Asian countries like Singapore, Thailand, Malaysia etc

15.7 Contracting in Health Care

Health sector is the lifeline for a nation's wellbeing. It is the sum total of the health of its citizens, communities and settlements in which they live. In the Indian Constitution, Health care is provided for in the Directive Principles along with other social and economic rights like education, livelihoods etc. It is one of India's largest sectors, in terms of revenue and employment, and the sector is expanding rapidly. The Indian healthcare sector has emerged as one of the most challenging sectors as well as one of the largest service sector industries in India.

Contract management is a general concept that may encompass a wide range of operational, strategic and administrative components. This variation may include differences in management goals, array of services provided, specialty emphasis, depth of management experience and centralization of decision making in the management organization.

Contracting in health care is diverse in terms of the types of actors that use it, the types of contractual relationships that are established and the purpose thereof. However, one must never lose sight of the fact that contracting is a tool that should be evaluated on the basis of its impact on the performance of a health system and on peoples' health. Contracting should not be reduced to a mere management tool used to cut health costs. It is an approach that should lead the various actors to offer to the public health services that are increasingly efficient, effective, superior and fair.

To ensure that contracting is used strategically to introduce market mechanisms while ensuring that essential public services are provided and the needs of poor and vulnerable are protected, the government needs to recognize that contracting is a powerful process, a purposeful methodology not just a cluster of independent transactions. This means that contracting initiatives must be regulated and monitored at the highest level of government by experienced and astute policy makers, economists and operational personnel.

In fact, despite contracting limitations, there are some issues to be considered: The first is the provider payment mechanism, second, the nature of provider and the type of contract and finally, the impact of factors outside the contract itself. Contracting with non-governmental entities will provide better results than government provision of the same services.

Contracting initiatives must be regulated and monitored at the highest level of government by experienced and astute policy makers, economists and operational personnel.

15.7.1 Private Public Partnerships

Health is the critical sector for achieving overall equitable human development in the country. India's health spending (4.1% of GDP) is much lower than the spending of Organization for Economic Co-operation and Development (OECD) member countries. The private sector can bridge the investment deficit and improve the efficiency and outreach of service delivery.

Several constraints exist in the health sector in India. The major challenges for the health sector include

- _ Accessibility and coverage in rural areas,
- _ Ineffective management of existing infrastructure,
- _ inadequate number and quality of health care professionals.

Definition of Public Private Partnership (PPP)

PPP broadly refers to long-term, contractual partnerships between public and private sector agencies, specially targeted towards financing, designing, implementing and operating infrastructure facilities to provide services that were traditionally provided by the public sector.

15.7.2 Key Areas

Partnership between the public and the private sectors for a common goal is not a new concept or practice used globally. The role of public private partnerships can be vit

1. **Infrastructure Development** - Development and strengthening of healthcare infrastructure that is evenly distributed geographically and at all levels of care.
2. **Management and Operations** - Management and operation of healthcare facilities for technical efficiency, operational economy and quality
3. **Capacity Building and Training** - Capacity building for formal, informal and continuing education of professional, para-professional and ancillary staff engaged in the delivery of healthcare.
4. **Financing Mechanism** - Creation of voluntary as well as mandated third-party financing mechanisms.
5. **IT Infrastructure** - Establishment of national and regional IT backbones and health data repositories for ready access to clinical information.
6. **Materials Management** - Development of a maintenance and supply chain for ready availability of serviceable equipment and appliances.

15.7.3 Tenets of Successful Public Private Partnership

- a) **Transparency:** All the processes of selecting, designing, costing and awarding contract to an individual or agency for partnership should be transparent. Monitoring of its

implementation and its outcome should also be transparent and information should be available to the people immediately.

- b) Impartiality between public and private sectors:** A PPP project should be designed and implemented with utmost concern that it does not compromise public health priorities. If not done carefully it will weaken the public sector's capacity to uphold regulations. If there is any shift with a bias for private against public health sector under the guise of partnerships, there is a danger of displacing the marginalized and may therefore be in conflict with the fundamental concept of equity in healthcare.
- c) PPP as a part of social responsibility of the public sector:** PPP does not mean renouncing of responsibility by the public health sector. Failure of the state in such partnerships may result in a *laissez-faire* attitude, prejudicial to the civil society particularly the interest of the vulnerable groups.
- d) Value for money:** After all, it is public money which is spent for providing public goods/services and so whether it is for or not-for-profit, it should be reasonably good both in content and its quality for the money spent. There were gaps found in good quality services at reasonably high cost in its economic sustainability. A low cost, good quality model is designed and implemented on BOT (Build-Operate-Transfer) mode. However, its post transfer O&M (operating and maintenance) costs are not included. This makes it a 'no value for money' project and hence it can become socially useless. The costing of a project should be able to balance between its current investment and its long-term cost and needs.
- e) Integration of healthcare services**

The purpose of PPP is to have a team approach with public health sector, private health sector and the civil society as key players to achieve a common goal of building up a universally accessible and affordable healthcare system. Any PPP project must ensure that competition and conflict of interests does not lead to further fragmentation of an already weak healthcare system. No doubt, the project must be designed in a way that it is mutually rewarding – economically as well as socially.

f) Financially workable

Integrated projects can be cost cutters, can be for or not-for-profit but never the less require a steady cash flow. Sharing costs, partial contribution or margin money etc. is just an assurance about the financial capacity of the contracted agency. But any pinch in amount, time or pace of cash flow undermines the partnership. Cutting corners reduces both its quality and its long-term sustainability.

- g) Fiscal clarity** NRHM (National Rural Health Mission) is in a way large scale PPP between Government of India and the State NRHM Society. It appears on Central Government budget but not on State Government budget.

15.7.4 Role the Government

- i. The government needs to take specific policy initiatives for increasing private sector interest and participation, such as:
- ii. Support in infrastructure set-up especially land acquisition or providing space
- iii. Offer capital and/or revenue grant e.g. viability gap funding
- iv. Budgetary provisions for capital and operating expenses of the PPP
- v. Formulate health sector specific policies and guidelines for PPP
- vi. Capacity building within government for managing PPP projects
- vii. Ensure transparent and fair bidding process Buy-back a share of capacity for government identified beneficiaries

15.8 Outsourcing

The concept of outsourcing came from the American terminology “outside resourcing”, meaning to get resources from the outside. The term was later used in the economic terminology to indicate the use of external sources to develop the business, which typically were using their internal resources.

Outsourcing is an increasingly popular strategy that healthcare organization can use to control the rising costs of providing services. With outsourcing, an external contractor assumes responsibility for managing one or more of a healthcare organization’s business, clinical, or hospitality services.

Because the contractor specializes in providing a specific service and can achieve economies of scale, he/she may be able to provide a service more efficiently and less expensively than the healthcare organization.

Outsourcing services peripheral to the organization’s primary operations may also enable healthcare administrators and staff to concentrate more efficiently on their organization’s core business.

Common Services outsourced in Hospitals

1. Security
2. Laundry
3. House keeping

4. Food services
5. Maintenance- civil, electrical and mechanical
6. Pharmacy
7. Transportation – ambulances, other

15.8.1 Emerging Areas that can be outsourced

- a. Laboratory services
- b. Radiology
- c. Nursing
- d. Biomedical engineering
- e. Blood bank
- f. Physiotherapy
- g. Homecare services
- h. Outreach services (e.g. camps)
- i. IT Services
- j. Billing
- k. Insurance Claims Processing
- l. Revenue Cycle Management
- m. Payroll processing
- n. Marketing
- o. HR Processes

15.8.2 Outsourcing Decision-Making Factors

The number of factors affect the decision to outsource a service:

1. Cost savings
2. Customer satisfaction
3. Focus on core business
4. Lack of personnel
5. Lack of funds

15.8.3 Impact of Outsourcing

1. Improvement in customer satisfaction.
2. Improvement Quality of the services provided by the hospitals.
3. Cost reduction.

15.8.4 Benefits from outsourcing

1. Improvement in service quality levels.
2. Economies of scale.
3. Use of the external provider's infrastructure.
4. Opportunity for the healthcare organization to focus on its core business.

5. Enhanced flexibility.
6. Accelerate the benefits reengineering.
7. Sharing risks.
8. Capital injection.

15.8.5 Difficulties in implementation

1. Lack of coordination and integration between the healthcare organization and the external provider as well as the insufficient understanding of the provider about the user's operations.
2. Employees' resistance to changes.
3. Price negotiation and billing problems.

15.8.6 Managerial Implications

The important practical implications for those involved in outsourcing investigations in the healthcare sector. The benefits realized after the implementation of the outsourcing decision have explained the relatively high satisfaction level of the users and, hence, the increasing future trend of outsourcing. To those healthcare organizations considering outsourcing of their activities, this positive feedback should be reassuring. The number of experienced organizations provides an important source of information about how to proceed and what to expect

The most significant reasons for outsourcing are to improve customer service, to reduce costs, to enable healthcare organizations to focus on core activities, and to increase flexibility to configure resources to meet changing market needs.

Some organizations do not achieve the expected benefits from outsourcing, due to lack of formal outsource decision-making process including medium- and long-term cost-benefit analyses, resistance to changes, and the inability to formulate and quantify requirements.

The most significant risks of outsourcing lie in the need to develop new management competencies, capabilities and decision-making processes. These include decisions on which activities should remain within the healthcare organization and which outsourced, whether all or part of the activity should be outsourced, and how to manage relationships rather than internal functions and processes.

Mistakes in identifying core and noncore activities can lead healthcare organization to outsource their competitive advantages. However, what is core one day may not be so the next. Moreover, once organizational competence is lost, it is difficult to rebuild. There is a difficult decision regarding how organizational competence is lost, it is difficult to rebuild. There is a difficult decision regarding how “close to core” outsourcing should be.

Failure to manage outsourcing relationships properly, perhaps through service level agreements, may reduce customer service, levels of control and contact with customers. The assessment of costs of “make or outsource” should include the additional cost burden of managing the outsource relationships.

Because the introduction of contract services into an organization represents an important shift in the way in which business is conducted, the provision of appropriate training for employees is an important issue. The training efforts should typically focus on employees’ ability to adjust into another environment and new roles. This includes use of computerized systems, higher skills/knowledge development, and systems support. Once the decision to outsource is accepted, there is little resistance to change by the employees.

15.9 Digital Hospital

Digital Hospital is a concept contributing to enhancing personnel productivity, facilitating hospital operations, improving the process quality and ensuring patient safety by integrating cutting-edge technologies such as medical devices, smart information systems, facility control and automatic conveyor systems, location-based services, sensors and digital communication tools into health processes. Common sharing of medical information resources and adaptation to local circumstances enables the information processing and communication function to be achieved on a complete platform, which offers completeness to present hospital management and future medical environment.

Digital Hospital can be defined in a broad sense from a hospital where maximum level of information technologies is used in administrative, financial and medical processes, to a hospital where all kinds of communication tools and medical devices are integrated with each other and with other information systems, and healthcare staff and patients can exchange data inside or outside the hospital by using telemedicine and mobile medicine practices.

Digital hospital is an important goal of the hospital construction, which is significant for promoting medical development and improving healthcare quality

The use of information and communication systems for the prevention, diagnosis, treatment and monitoring of diseases and provision of health counselling in healthcare services is described with the term “*e-Health*”. In this context, “Digital hospital, mobile health, telemedicine and robotic health” are defined as the *sub-components of e-Health*.

15.9.1 Features of a Digital Hospital

1. Patient admission, hospitalization and other clinical processes, consultation and referrals are moved onto paperless digital platform.
2. Practices such as e-prescription and e-signature are initiated in the hospital.
3. Orders for MR, X-Ray, ECG, blood and other tests (hearing test etc.) are concluded without papers in a computer environment. Results of these orders are submitted in the digital environment. These results can be accessed anywhere both by healthcare staff and patients via phones and tablets.
4. All generated data (records, results, invoices etc.) are archived in the digital environment, and information safety is ensured.
5. Treatment orders of physicians are completely processed in an online environment immediately and by remote access.
6. With the computer terminals placed in patient rooms, nurses enter the treatment information into the system without using any paper or document, thus pharmacy, stock tracking and invoicing system can record the entries and exits immediately.
7. *Closed Loop Medication Administration System* the right drug is administered to the right patient, at right doses, via the right route and at the right time.
8. All administrative documents and correspondences in the hospital (excluding purchasing documents as required by laws) are followed up in the electronic system and e-signature is used in the documents.
9. Programs such as budget and stock alert systems are used to view the resources all the time.
10. Infrastructure components such as fire system, security, electricity, water and natural gas are followed up by a central system. In emergency cases, these technologies can be activated.
11. None of the data generated in the hospital get lost and all data can be accessed from anywhere and anytime.
12. As paper is not used, stationary costs are saved.
13. Hospital services can be provided fast and efficiently thanks to the smart software.

15.9.2 Electronic Health Records

Electronic Health Records (EHR's) are widely known as Electronic Medical Records (EMR's) and many people use the term interchangeably. An EHR is an electronic version of a patient's health record that was historically created, used, and stored in a paper chart. A patient EHR is created, managed, and held by a healthcare organization. Only healthcare professionals who are involved in a patient's care can access and use an electronic health record. A Personal Health Record (PHR) is a health record that a patient controls and can change.

15.9.3 History of Electronic Health Records

Medical records have been around since the advent of healthcare. In the very early days, the medical record was used to record the disease and the probable cause of that disease (National Institutes of Health, 2006). In the early part of the twentieth-century, medical records were kept on three by five cards. The 1960's and 1970's saw a rapidly changing era in healthcare when the federal government passed legislation that established Medicare. At the same time, other third-party payers entered the healthcare market, healthcare lawsuits starting immersing, healthcare quality became important, and the government passed more stringent laws regulating the industry. This is the time frame when medical records really became a necessity in healthcare, and the first electronic health record appeared.

The use of electronic health records was slow to catch on with physicians and healthcare providers. It was estimated in 2009 that less than 8% of hospitals had an electronic health record. Some of the reasons for the slow adoption of EHR's are the immense cost of the systems, lack of national standards, and because healthcare providers spend an immense amount of time and money complying with government regulations and patient privacy requirements.

15.10 Summary

Hospitals are evolved from refuge of death to the light of life. Rapid growth in medicine sciences have changed the way the way of health care from disease focused to the patient centric care. Newer concepts like building automation, energy conservation, Health Insurance, Medical tourism, telemedicine etc have become part and parcel of medical practice. A need was felt to present these recent advances in health in a precise manner to a hospital administrator.

15.11 Key words

Private health insurance (PHI) is becoming more prevalent in both developed and developing countries, yet it plays a limited role increasing access to health care in developing countries

Domestic medical tourism refers to patients traveling within their own country to receive care at a ‘center of excellence’

Outsourcing- The concept of outsourcing came from the American terminology “outside resourcing”, meaning to get resources from the outside

Digital hospital - Digital hospital is an important goal of the hospital construction, which is significant for promoting medical development and improving healthcare quality

Electronic Health Records- Electronic Health Records (EHR’s) are widely known as Electronic Medical Records (EMR’s) and many people use the term interchangeably

Public Private Partnership- PPP broadly refers to long-term, contractual partnerships between public and private sector agencies, specially targeted towards financing, designing, implementing and operating infrastructure facilities to provide services that were traditionally provided by the public sector.

Contract management is a general concept that may encompass a wide range of operational, strategic and administrative components

Social Health Insurance (SHI)- SHI schemes are often financed through mandatory earnings-related contributions levied on formal sector workers

15.12 Self-Assessment Questions

1. Define Tele Medicine? Briefly Explain the Historical Perspective of Tele Medicine?
2. Explain the Goals and Benefits of Ayushman Bharat?
3. Define the Outsourcing? Emerging Areas and Benefits of Outsourcing?
4. Elucidate the Features and Difficulties in Implementation of Digital hospital

A. Short-Answer Questions (with Answers)

1. **Who is a hospital administrator?**
A professional responsible for managing and coordinating hospital services.
2. **Mention two roles of hospital administrator.**
Leadership and coordination.

3. **What is the supervisory role?**

Monitoring staff performance and ensuring adherence to standards.

4. **Define decision-making role.**

Selecting appropriate courses of action for hospital functioning.

5. **Why is coordination important for hospital administrators?**

To integrate activities of diverse departments.

B. Essay-Type Questions (with Guiding Hints)

1. **Explain the roles of hospital administrators.**

Hint: Leadership, planning, coordination.

2. **Discuss strategic and operational roles of hospital administrators.**

Hint: Policy vs day-to-day management.

3. **Analyse the leadership role of hospital administrators.**

Hint: Motivation, communication.

4. **Explain supervisory and controlling roles in hospitals.**

Hint: Monitoring, evaluation.

5. **Evaluate the importance of hospital administrators in service quality.**

Hint: Efficiency, patient satisfaction.

C. Analytical MCQs

1. Hospital administrator primarily performs:

A. Diagnosis

B. Surgery

C. **Management and coordination**

D. Nursing

2. Strategic role of hospital administrator relates to:

A. Routine work

B. Supervision only

C. **Policy and planning**

D. Billing

3. Supervisory role involves:

A. Policy formulation

B. **Monitoring staff performance**

C. Surgery scheduling

D. Diagnosis

4. Coordination role mainly ensures:

A. Departmental rivalry

B. Isolation of services

- C. **Integrated service delivery**
 - D. Clinical dominance
5. Leadership role of hospital administrator focuses on:
- A. Equipment maintenance
 - B. **Guidance and motivation**
 - C. Diagnosis
 - D. Treatment

B. Case Study for Self-Assessment

Leadership Role of Hospital Administrator in a District Hospital

Background

A district hospital delivering secondary healthcare services experienced declining staff morale and increased patient waiting time.

Situation Analysis

Review revealed lack of supervision, weak communication, and absence of leadership at the administrative level.

Integration of Lesson Concepts

- Leadership role
- Supervisory role
- Decision-making responsibility
- Coordination among departments

Analytical Questions

1. Identify the roles of the hospital administrator highlighted in this case.
2. How did absence of leadership affect hospital performance?
3. Explain the importance of supervision in hospital administration.
4. Suggest role-based interventions for improvement.

Model Answers (Indicative)

1. Leadership, coordination, supervision.
2. Poor leadership led to inefficiency and dissatisfaction.
3. Supervision ensures accountability and performance.
4. Strengthen leadership, communication, and monitoring.

15.13 Suggested Readings

1. Sakharkar, B.M., & Jaypee Brothers (Jaypee Digital) (2009) Principles of Hospital Administration and Planning, (Jaypee eBooks), Jaypee Brother Medical Publisher Private Limited.
2. Hospital Administration (2017) DC Joshi and Mamata Joshi Jaypee Brothers Medical Publishers (P) Ltd.; 1st edition
3. Hospital and Healthcare Accreditation (As Per the Guidelines of NABH, NABL, JCI) (2018) Brajkishore Rajoriya Six Sigma Star Healthcare (P) Ltd, New Delhi, India; NABH, NABL, JCI.
4. Performance Improvement in Hospitals and Health Systems: Managing Analytics and Quality in Health care (2018) James R. Langabeer II CRC press Taylor and Francis Group Productivity Press Book.
5. Service Quality for Facilities Management in Hospitals (2016) Low Sui Pheng & Zhu Rui (auth) Low Sui Pheng & Zhu Rui (auth.) Springer Publications
6. Introduction to Health care quality Management (2009) Patrice Spath AUPHA press Washing Ton PC.,

A. Text Books

1. Sakharkar, B.M., *Principles of Hospital Administration and Planning*, Jaypee Brothers Medical Publishers, New Delhi, 2009.
2. Francis, C.M. & De Souza, M.C., *Hospital Administration*, Jaypee Brothers Medical Publishers, New Delhi, 2015.
3. Joshi, D.C. & Joshi, M., *Hospital Administration*, Jaypee Brothers Medical Publishers, New Delhi, 2009.
4. Srinivasan, S., *Management Process in Health Care*, Voluntary Health Association of India, New Delhi, 1982.
5. Gupta, M.C. & Mahajan, B.K., *Textbook of Preventive and Social Medicine*, Jaypee Brothers Medical Publishers, New Delhi, 2003.

B. Other Reference Materials

- World Health Organization, *Hospitals and Health Systems*, WHO Publications.
- Government of India, *Indian Public Health Standards (IPHS)*, Ministry of Health & Family Welfare.